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A REVIEW OF THE INTERNATIONAL LAW COMMISSION'S GUIDELINES ON THE PROTECTION OF THE ATMOSPHERE

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The International Law Commission ('ILC') adopted a set of 12 Draft Guidelines on the protection of the atmosphere on first reading in 2018. This project, led by Special Rapporteur Shinya Murase, could have provided the first authoritative interpretation of the general international law applicable, in particular, to climate change. Yet, the work of the ILC on the topic largely failed to comprehend the relevant rules. This review reveals numerous shortcomings of the Draft Guidelines and makes suggestions for the second reading.

CONTENTS

I INTRODUCTION

The International Law Commission ('ILC') adopted the Draft Guidelines ('DGs') on the protection of the atmosphere on first reading at its 70th session held

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in 2018.[1] This is the culmination of the work that Special Rapporteur Shinya Murase conducted at the ILC for five years.[2] A second reading could be initiated by mid-2020.[3]

The importance of the ILC's project relates to the shortcomings of international negotiations, in particular on climate change. Despite a global scientific[4] and political[5] consensus on the impact of anthropogenic greenhouse gas ('GHG') emissions as 'one of the greatest challenges of our time',[6] and despite three decades of intense negotiations leading to the adoption of three main treaties,[7] efforts promised or implemented have been insufficient to hold global warming within what is largely viewed as an acceptable level of risk.[8] The *Doha Amendment to the Kyoto Protocol*, adopted on 8 December 2012 to impose quantified emission limitation and reduction commitments on some developed country parties from 2013 to 2020, has not yet entered into force.[9] The United States, which decided not to ratify the *Kyoto Protocol*,[10] has announced its intention to withdraw from the *Paris Agreement*.[11] And the Nationally Determined Contributions ('NDCs') that states have communicated to date under the *Paris Agreement* are inconsistent with an emission reduction pathway which would hold global warming 'well below 2°C' and possibly 1.5°C, the objectives endorsed by

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1 *Report of the International Law Commission on the Work of Its Seventieth Session*, UN GAOR, 73rd sess, Supp No 10, UN Doc A/73/10 (2018) 161–200 [78] ('*ILC Report 70th Session*'), which reproduces the '[t]ext of the draft guidelines, together with preamble, and commentaries thereto'.

2 'Summaries of the Work of the International Law Commission: Protection of the Atmosphere', *International Law Commission* (Web Page, 20 November 2018) <https://legal.un.org/ilc/summaries/8_8.shtml>, archived at <https://perma.cc/89T9-97GH>.

3 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 158 [76]; *Establishment of an International Law Commission*, GA Res 174 (II), UN GAOR, 6th Comm, 2nd sess, Agenda Item 33, UN Doc A/RES/174(II) (21 November 1947) annex ('*Statute of the International Law Commission*') arts 16(h)–(i), 20–22.

4 See especially IPCC, *Climate Change 2014* (Synthesis Report, 2015) 4–5, 44.

5 See, eg, *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994) Preamble para 3, art 2 ('*UNFCCC*'); *Paris Agreement*, opened for signature 22 April 2016, [2016] ATS 24 (entered into force 4 November 2016) art 2(1).

6 *Protection of Global Climate for Present and Future Generations of Humankind*, GA Res 73/232, 2nd Comm, 73rd sess, Agenda Item 20(d), UN Doc A/RES/73/232 (11 January 2019, adopted 20 December 2018) para 1.

7 See *UNFCCC* (n 5); *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 16 March 1998, 2303 UNTS 162 (entered into force 16 February 2005) ('*Kyoto Protocol*'); *Paris Agreement* (n 5).

8 See generally United Nations Environment Programme, *Emissions Gap Report 2018* (Report, November 2018).

9 *Doha Amendment to the Kyoto Protocol*, opened for signature 8 December 2012, [2016] ATNIF 24 (not yet in force) ('*Doha Amendment*'). As of 3 January 2020, 136 parties had deposited their instrument of acceptance, out of 144 instruments of acceptance required by art 2 for the entry into force of the agreement: United Nations, 'Status of Treaties: Doha Amendment to the Kyoto Protocol', *United Nations Treaty Collection* (Web Page, 14 January 2020) <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-c&chapter=27&lang=_en&clang=_en>, archived at <https://perma.cc/6L4V-PDYU>.

10 143 *Congressional Record* 15808 (1997, Senate).

11 United Nations Secretary-General, *United States of America: Communication*, Doc No C.N.464.2017.TREATIES-XXVII.7.d (4 August 2017) ('*United States Communication*'); United Nations Secretary-General, *United States of America: Withdrawal*, Doc No C.N.575.2019.TREATIES-XXVII.7.d (4 November 2019).

the *Paris Agreement*.[12] On states' own assessment, international negotiations are falling short of expectations.

Given the shortcoming of political negotiations, an interpretation of existing norms of general international law is long overdue. Some have argued that under the prevention principle in international environmental law, states have an obligation to prevent excessive GHG emissions.[13] Likewise, the obligation of states to protect human rights may be construed as implying an obligation to take measures to mitigate climate change because the impacts of climate change hinder the enjoyment of human rights.[14] The obligation of states to conserve biological diversity[15] and to protect and preserve the marine environment,[16] or even their duty to protect, conserve and transmit to future generations the world cultural and natural heritage,[17] could be interpreted in similar ways. States have not excluded the applicability of norms of general international law to climate change by ratifying specific treaties:[18] these treaties are better construed as a gradual attempt to emulate compliance with general norms.[19] Interpreting such general norms in the complex circumstances of climate change is challenging but not necessarily impossible.[20]

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12 *Paris Agreement* (n 5) art 2(1)(a). See IPCC, *Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* (Report, 2018) 18 [D.1.1], noting that Nationally Determined Contributions ('NDCs') are 'broadly consistent with cost-effective pathways that result in a global warming of about 3°C by 2100, with warming continuing afterwards'.

13 See Benoît Mayer, 'The Relevance of the No-Harm Principle to Climate Change Law and Politics' (2016) 19 *Asia Pacific Journal of Environmental Law* 79 ('No-Harm Principle').

14 See, eg, *Urgenda Foundation v The Netherlands*, No 200.178.245/01 (Court of Appeal of The Hague, 9 October 2018) ('*Urgenda Appeal Judgment*'). See generally Stephen Humphreys, 'Introduction: Human Rights and Climate Change' in Stephen Humphreys (ed), *Human Rights and Climate Change* (Cambridge University Press, 2010) 1.

15 *Convention on Biological Diversity*, opened for signature 5 June 1992, 1760 UNTS 79 (entered into force 29 December 1993) art 6 ('*CBD*').

16 *United Nations Convention on the Law of the Sea*, opened for signature 10 December 1982, 1833 UNTS 3 (entered into force 16 November 1994) art 192 ('*UNCLOS*').

17 *Convention Concerning the Protection of the World Cultural and Natural Heritage*, opened for signature 16 November 1972, 1037 UNTS 151 (entered into force 17 December 1975) art 4. See, eg, Greg Terrill, 'Climate Change: How Should the World Heritage Convention Respond?' (2008) 14(5) *International Journal of Heritage Studies* 388.

18 See, eg, *UNFCCC* (n 5) 317–18, for Declarations made upon signature by Kiribati, Fiji, Nauru and Tuvalu. See generally Christoph Schwarte and Will Frank, 'Reply to Zahar' (2014) 4(3–4) *Climate Law* 234, 236; Benoit Mayer, 'The Applicability of the Principle of Prevention to Climate Change: A Response to Zahar' (2015) 5(1) *Climate Law* 1, 15–20; Benoit Mayer, 'The Place of Customary Norms in Climate Law: A Reply to Zahar' (2018) 8(3–4) *Climate Law* 261, 268–75; Leslie-Anne Duvic-Paoli, *The Prevention Principle in International Environmental Law* (Cambridge University Press, 2018) 78. But see Alexander Zahar, 'Mediated versus Cumulative Environmental Damage and the International Law Association's Legal Principles on Climate Change' (2014) 4(3–4) *Climate Law* 217, 230; Alexander Zahar, 'The Contested Core of Climate Law' (2018) 8(3–4) *Climate Law* 244, 255–8.

19 See Benoit Mayer, 'Construing International Climate Change Law as a Compliance Regime' (2018) 7(1) *Transnational Environmental Law* 115; Duvic-Paoli (n 18) 78.

20 See Benoit Mayer, 'Interpreting States' General Obligations on Climate Change Mitigation: A Methodological Review' (2019) 28(2) *Review of European, Comparative & International Environmental Law* 107, 109 ('Methodological Review').

Already, domestic courts have started to explore how general norms can be applied to assess the obligation of states to mitigate climate change. The District and Appeal Courts of the Hague in *Urgenda Foundation v The Netherlands* interpreted tort law and human rights law, respectively, as implying an obligation for the national government of the Netherlands to pursue more stringent mitigation action than required under negotiated instruments.[21] Similarly, the Supreme Court of Colombia construed human rights obligations as implying an obligation for the government to take measures to stop deforestation.[22] Many more cases are pending before national courts throughout the world.[23] While rules of international law cannot always be enforced by domestic courts, they are often part of the normative context that these courts take into consideration in interpreting domestic law.[24]

A better understanding of the rights and obligations of states in relation to climate change is necessary for courts to address these cases in a fair and consistent way. It is also needed in the not-so-far-fetched hypothesis of international adjudication, either through contentious or, perhaps more likely, advisory proceedings.[25] Overall, a better understanding of the obligations of states under general international law could promote a common vision of a fair and equitable outcome of negotiations and thus facilitate a convergence of views among negotiators — or at least narrow down the argumentative field by excluding untenable positions.[26]

This article argues that while the ILC's project is important, the DGs do not live up to the mission of the ILC to promote the progressive development of

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21 See *Urgenda Foundation v The Netherlands*, No C/09/456689/HA ZA 13-1397 (District Court of The Hague, 24 June 2015) [4.83] ('*Urgenda First Instance Judgment*'); *Urgenda Appeal Judgment* (n 14) [41], [73]. See generally Benoit Mayer, 'The State of the Netherlands v Urgenda Foundation: Ruling of the Court of Appeal of The Hague (9 October 2018)' (2019) 8(1) *Transnational Environmental Law* 167.

22 Corte Suprema de Justicia [Supreme Court of Justice], STC4360-2018, 5 April 2018 ('*Future Generations v Ministry of the Environment*').

23 See, eg, the memorandum of VZW Klimaatzaak in a climate case brought against the Belgian government: VZW Klimaatzaak, 'Citation', Submission in *VZW Klimaatzaak v Belgium* (Brussels Court of First Instance) <https://affaire-climat.be/documents/affaire_climat_Citation_fr.pdf>, archived at <https://perma.cc/P4Y6-AZGH>; the memorandum of Notre Affaire à Tous in its case against France: 'Brief juridique sur la requête deposée au Tribunal Administratif de Paris le 14 mars 2019 [Legal Brief on the Application Filed at the Paris Administrative Tribunal on 14 March 2019]', *L'affaire du siècle* [The Affair of the Century] (Web Page, 2019) <https://laffairedusiecle.net/wp-content/uploads/2019/03/ADS-Brief-juridique-140319.pdf>, archived at <https://perma.cc/E2JV-WTQQ>; Carvalho, 'Application for Annulment pursuant to Article 263 TFEU', Submission in *Carvalho v European Parliament*, Case T-330/18, 23 May 2018 <http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/05/20180524_Case-no.-T-18_application-1.pdf>, archived at <https://perma.cc/5Z5F-TD5N>. See generally Mayer, 'Methodological Review' (n 20).

24 See, eg, *Urgenda First Instance Judgment* (n 21) [4.42].

25 See, eg, Philippe Sands, 'Climate Change and the Rule of Law: Adjudicating the Future in International Law' (2016) 28(1) *Journal of Environmental Law* 19; International Union for the Conservation of Nature, *Request for an Advisory Opinion of the International Court of Justice on the Principle of Sustainable Development in View of the Needs of Future Generations* (Resolution No WCC-2016-Res-079, September 2016); Daniel Bodansky, 'The Role of the International Court of Justice in Addressing Climate Change: Some Preliminary Reflections' (2017) 49 (Special Issue) *Arizona State Law Journal* 689, 711–12.

26 An example of such an untenable position would be that a state has no obligation to regulate anthropogenic greenhouse gas ('GHG') emissions except for negotiated, consent-based commitments.

international law and its codification. The DGs' interpretation of the general international law applicable to global environmental concerns such as climate change is incomplete and at times regressive. These shortcomings are largely the consequence of the protracted opposition of some ILC members and some states to the codification of this field of law. The project was carried out on the basis of an 'Understanding' which, on political grounds, excluded any discussion of most relevant legal concepts.[27] But the project also suffered from a lack of expertise, as the analysis prepared by the Special Rapporteur was at times misinformed or weakly argued. A more thorough analysis should be carried out during the second reading to avoid the risk of a regressive codification of this field of law.

The article is organised as follows. Part II provides a general overview of the ILC's project by retracing its origin and the process leading to the adoption of the DGs on first reading. Part III analyses the approach followed by the ILC. It reviews the debate on the opportunity of this project and considers its methodology. It then introduces key concepts: 'atmospheric pollution' and 'atmospheric degradation', which form the backbone of the DGs; and 'common concern of humankind', which, after long discussions, the ILC did not include in the DGs. Part IV examines the specific rights and obligations that the ILC identified as well as those that it failed to identify. It argues that the DGs provide an incomplete analysis of the obligations to protect the atmosphere and to cooperate, a misleading provision on the regulation of geoengineering and an incomplete treatment of the consequences of non-compliance, in particular under the law of state responsibility.

II OVERVIEW OF THE PROJECT

Recent years have witnessed several attempts at an authoritative interpretation of general international law in relation to climate change. The *Oslo Principles of Global Climate Change Obligation*s, developed by a dozen judges, advocates and scholars, follows a rather loose methodology;[28] it presents at best a theory about what the law *should* be, rather than a doctrinal analysis of what it *is*.[29] Shinya Murase and Lavanya Rajamani led a more rigorous project under the aegis of the International Law Association ('ILA'), resulting in the adoption of a Declaration of Legal Principles Relating to Climate Change in 2014.[30] The declaration largely reflected the content of the *United Nations Framework Convention on Climate Change* ('*UNFCCC*') as interpreted by subsequent practice, in particular subsequent Conference of the Parties ('COP') decisions, but it also highlighted the

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27 See International Law Commission, *Report of the International Law Commission on the Work of Its Sixty-Fifth Session*, UN GAOR, 68th sess, Supp No 10, UN Doc A/68/10 (2013) 115 [168] ('*ILC Report 65th Session*').

28 Expert Group on Global Climate Obligations, *Oslo Principles on Global Climate Change Obligations* (Eleven International Publishing, 2015). For commentary explaining that the project is informed by '[a]n amalgamation of legal sources' from domestic, regional and international law, see especially at 21.

29 This theory assumes that everyone should be entitled to an equal quantum of greenhouse gas emissions each year, thus ignoring alternative grounds for differentiation based for instance on states' and individuals' capacity to decrease greenhouse gas emissions.

30 'Legal Principles Relating to Climate Change: For Consideration at the 2014 Conference' (2014) 76 *International Law Association Reports of Conferences* 330 ('Declaration of Climate Change Legal Principles at the 2014 Conference').

obligation of states to 'exercise due diligence to avoid, minimise and reduce environmental and other damage through climate change'.[31]

The ILC's project, introduced and carried out by Shinya Murase, largely built on the preliminary study of the ILA. The ILC's broader focus on the protection of the atmosphere, which was recommended by some ILA members,[32] aimed presumably to distinguish the codification process conducted by the ILC from political negotiations on particular issues. The topic of the protection of the atmosphere includes climate change, but also other global and transboundary impacts on the atmosphere, such as the depletion of the ozone layer and transboundary air pollution. This broad conceptual framework favoured cross-fertilisation between rather well-established norms on the prevention of transboundary environmental harm and those that are little understood, applicable to global environmental harm.

While the ILA is a private association, the ILC was established by the United Nations General Assembly in 1947 with the aim of promoting 'the progressive development of international law and its codification'.[33] The ILC has carried out authoritative studies of various fields of international law, most notably on the law of state responsibility;[34] its work has led to the adoption of treaties, including on the law of treaties,[35] diplomatic protection[36] and the non-navigational uses of international watercourses.[37] Several recent ILC projects have dealt with

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31 Ibid 354 (Draft Article 7A). See also at 331–2 (Draft Article 1 Commentary); Christoph Schwarte and Will Frank, 'The International Law Association's Legal Principles on Climate Change and Climate Liability under Public International Law' (2014) 4(3–4) *Climate Law* 201.

32 For the summary record of a working session held on 17 August 2010 at 2:30pm, where Professor Osamu Yoshida is reported suggesting that 'the problems on climate change should be addressed in the wider context of the protection of the atmosphere', see especially 'Legal Principles Relating to Climate Change: First Report' (2010) 74 *International Law Association Reports of Conferences* 346, 405.

33 *Establishment of an International Law Commission*, GA Res 174 (II), UN GAOR, 6th comm, 2nd sess, 123rd plen mtg, Agenda Item 33, UN Doc A/RES/174(II) (21 November 1947) Preamble para 1.

34 International Law Commission, *Report of the International Law Commission on the Work of Its Fifty-Third Session*, UN GAOR, 56th sess, Supp No 10, UN Doc A/56/10 (2001) ch IV(E)(1) ('*Draft Articles on Responsibility of States for Internationally Wrongful Acts*') ('*DARSIWA*').

35 *Vienna Convention on the Law of Treaties*, opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980).

36 *Vienna Convention on Diplomatic Relations*, opened for signature 18 April 1961, 500 UNTS 95 (entered into force 24 April 1964).

37 *Convention on the Law of the Non-Navigational Uses of International Watercourses*, opened for signature 21 May 1997, 36 ILM 700 (entered into force 17 August 2014) ('*Watercourses Convention*').

environmental issues in a transboundary context,[38] but *global* environmental concerns have largely been left aside. For instance, the study of 'international liability for injurious consequences arising out of acts not prohibited by international law' did not deal with harm caused to the global commons on the ground that this question 'would require different treatment'.[39] Likewise, Special Rapporteur Robert Rosenstock decided that the scope of the work on 'shared natural resources' would focus on 'natural resources within the jurisdiction of two or more States', to the exclusion of 'global commons', on the ground that the latter 'raise many of the same issues but a host of others as well'.[40]

In 2011, following the completion of its works on liability[41] and on natural resources,[42] the ILC endorsed Shinya Murase's proposal for the inclusion of the topic of the 'protection of the atmosphere' on the ILC's long-term programme of work.[43] Murase's syllabus described the atmosphere as 'the planet's largest single natural resource',[44] thus reflecting the continuity with the work on shared natural resources. Noting the piecemeal approach to the topic in existing treaty regimes, Murase envisaged the drafting of 'a framework convention by which the whole range of environmental problems of the atmosphere could be covered in a comprehensive and systematic manner',[45] which would be comparable to Part XII of the *United Nations Convention on the Law of the Sea* ('*UNCLOS*') on protection and preservation of the marine environment.[46]

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38 This includes the work conducted on 'international liability for injurious consequences arising out of acts not prohibited by international law' from 1974 to 1997 on 'international liability in case of loss from transboundary harm arising out of hazardous activities' from 2002 to 2006, and on 'protection of persons in the event of disasters' from 2007 to 2016, as well as the on-going work on the protection of the environment in relation to armed conflicts: 'International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law', *International Law Commission* (Web Page, 23 July 2015) <https://legal.un.org/ilc/guide/9.shtml>, archived at <https://perma.cc/AR93-JUMJ>; 'International Liability in Case of Loss from Transboundary Harm Arising out of Hazardous Activities', *International Law Commission* (Web Page, 15 July 2015) <https://legal.un.org/ilc/texts/9_10.shtml>, archived at <https://perma.cc/B9UD-YHH9>; 'Protection of Persons in the Event of Disasters', *International Law Commission* (Web Page, 29 May 2019) <https://legal.un.org/ilc/guide/6_3.shtml>, archived at <https://perma.cc/X35X-V7XW>.

39 Pemmaraju Sreenivasa Rao, Special Rapporteur, *Third Report on International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law (Prevention of Transboundary Damage from Hazardous Activities)*, 52nd sess, Agenda Item 4, UN Doc A/CN.4/510 (9 June 2000) 8 [14]. See also at 3 [4] n 9.

40 International Law Commission, *Report of the International Law Commission on the Work of Its Fifty-Second Session*, UN GAOR, 55th sess, Supp No 10, UN Doc A/55/10 (2000) annex ('*Syllabuses on Topics Recommended for Inclusion in the Long-Term Programme of Work of the Commission*') 141.

41 International Law Commission, *Report of the International Law Commission on the Work of Its Fifth-Eighth Session*, UN GAOR, 61st sess, Supp No 10, UN Doc A/61/10 (2006) 106–82 [66]–[67] ('*ILC Report 58th Session*'), showing text of the 'draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities', and the commentaries thereto.

42 International Law Commission, *Report of the International Law Commission on the Work of Its Sixty-Second Session*, UN GAOR, 65th sess, Supp No 10, UN Doc A/65/10 (2010) 344 [384], discontinuing the project on shared natural resources (oil and gas).

43 International Law Commission, *Report of the International Law Commission on the Work of Its Sixty-Third Session*, UN GAOR, 66th sess, Supp No 10, UN Doc A/66/10 (2011) 7 [32].

44 Ibid annex B ('*Protection of the Atmosphere*') 315 [1].

45 Ibid 317 [5]. See also at [26].

46 Ibid 317 [5]. See *UNCLOS* (n 16) pt XII.

Strong resistance against this project emerged both among ILC members and in the Sixth Committee of the UN General Assembly, which reviews the ILC's reports, largely due to concerns that the work of the ILC on the protection of the atmosphere would unduly interfere with ongoing political negotiations.[47] Following informal consultations,[48] the ILC decided in 2013 to go ahead with the project, but on the basis of an 'Understanding' which constrained both the scope of the topic and the nature of its outcome.[49] This 'Understanding' would haunt the conduct of the project for the years to follow.

The work of the ILC on the protection of the atmosphere was conducted on the basis of five reports presented by Special Rapporteur Murase from 2014 to 2018. The First Report announced a 'cautious approach' based on a clear distinction between *lex lata* (law as it is) and *lex ferenda* (law as it ought to be).[50] Overall, the report suggested that the protection of the atmosphere could be characterised as 'a common concern of humankind',[51] which could involve *erga omnes* obligations (obligations owed to the international community as a whole),[52] but these concepts attracted strong criticisms from ILC members[53] and then the Sixth Committee.[54]

The Second Report discussed the obligation of states to protect the atmosphere, which it related to the *sic utere tuo ut alienum non laedas* principle ('use your own property so as not to injure that of another'), a corollary to the principle of territorial sovereignty and equality of states.[55] It also identified the obligation of states to cooperate in good faith, referring in particular to the *Charter of the United Nations* and to the practice of states in addressing transboundary and global environmental concerns.[56] Facing renewed criticisms by other ILC members, Murase consented to removing the reference to 'common concern of humankind' from the DGs.[57] A part of the Preamble was adopted along with DGs providing definitions of key concepts, determining the scope of the project and recognising an obligation of states to cooperate,[58] but discussions on the obligation of states to protect the atmosphere were deferred to the following year.

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47 For discussion of concerns leading to this controversy, see below Part III(A).

48 See 'Summary Record of the Sixty-Fourth Session' (2012) I(2) *Yearbook of the International Law Commission* 1, 161 [67].

49 *ILC Report 65th Session*, UN Doc A/68/10 (n 27) 115 [168].

50 Shinya Murase, Special Rapporteur, *First Report on the Protection of the Atmosphere*, 66th sess, UN Doc A/CN.4/667 (14 February 2014) 9 [15] ('*First Report*').

51 Ibid 57 [90].

52 Ibid 57 [89].

53 See below Part III(C)(2).

54 See, eg, International Law Commission, *Provisional Summary Record of the 3210th Meeting*, 66th sess, 1st pt, 3210th mtg, UN Doc A/CN.4/SR.3210 (25 June 2014) 4 (Kittichaisaree).

55 Shinya Murase, Special Rapporteur, *Second Report on the Protection of the Atmosphere*, 67th sess, UN Doc A/CN.4/681 (2 March 2015) 25–36 [41]–[59] ('*Second Report*'). See especially at 31 [51].

56 Ibid 36–47 [60]–[77].

57 See International Law Commission, *Provisional Summary Record of the 3249th Meeting*, 67th sess, 1st pt, 3249th mtg, UN Doc A/CN.4/SR.3249 (8 June 2015) 12 (Murase) ('*ILC Provisional Summary Record 3249th Meeting*'); International Law Commission, *Provisional Summary Record of the 3260th Meeting*, 67th sess, 1st pt, 3260th mtg, UN Doc A/CN.4/SR.3260 (21 December 2015) 6 (Forteau) ('*ILC Provisional Summary Record 3260th Meeting*'), presenting the statement of the Chairman of the Drafting Committee.

58 International Law Commission, *Report of the International Law Commission on the Work of Its Sixty-Seventh Session*, UN GAOR, 70th sess, Supp No 1, UN Doc A/70/10 (2015) 22–37 [53]–[54].

Murase's Third Report identified the requirement for states to exercise due diligence to protect the atmosphere and to ensure that an environmental impact assessment ('EIA') is undertaken for sensitive projects.[59] It also spelled out a principle of 'sustainable and equitable utilization' of the atmosphere.[60] Lastly, it explored the legal limitations to 'activities aiming at intentional modification of the atmosphere', such as geoengineering.[61] Despite some hesitations, the ILC members adopted revised versions of five DGs proposed by Murase, recognising, in particular, the prevention principle as implying an obligation to 'prevent, reduce or control atmospheric pollution and atmospheric degradation'.[62]

Murase's Fourth Report discussed the relations between the international law on the protection of the atmosphere and other fields of international law, namely international trade and investment law, the law of the sea and international human rights law. In particular, Murase highlighted the need to find 'mutual supportiveness' among these fields of law.[63] This report attracted little enthusiasm among ILC members. Dire Tladi, for instance, questioned 'whether the issues covered ought to have been covered', as 'the issues of mutual supportiveness and interrelationships would be just as relevant for any topic seeking to address normative or primary rules'.[64] The report largely failed to build upon the ILC's previous study on the fragmentation of international law[65] and most ILC members doubted that 'mutual supportiveness' constituted a legal principle.[66] The four DGs proposed by Murase were eventually synthetised into a single Draft Guideline ('DG') on '[i]nterrelationship among relevant rules'.[67] While this limited the damage, it is not clear what this DG adds to the ILC's far more comprehensive and general study on the fragmentation of international law.

The last report discussed questions of implementation, compliance and dispute settlement, with half of the report focusing on the examination of scientific

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59 Shinya Murase, Special Rapporteur, *Third Report on the Protection of the Atmosphere*, UN GAOR, 68th sess, UN Doc A/CN.4/692 (25 February 2016) 9 [17]–[19], 20–33 [41]–[61] ('*Third Report*').

60 Ibid 33–42 [62]–[78].

61 Ibid 5–6 [11], 44–51 [84]–[91].

62 International Law Commission, *Report of the International Law Commission on the Work of Its Sixty-Eighth Session*, UN GAOR, 71st sess, Supp No 10, UN Doc A/71/10 (2016) 282–96 [95]–[96] ('*ILC Report 68th Session*').

63 Shinya Murase, Special Rapporteur, *Fourth Report on the Protection of the Atmosphere*, UN Doc A/CN.4/705 (31 January 2017). See especially at 8–11 [14]–[21] ('*Fourth Report*').

64 International Law Commission, *Provisional Summary Record of the 3355th Meeting*, 69th sess, 1st pt, UN Doc A/CN.4/SR.3355 (19 June 2017) 5 ('*ILC Provisional Summary Record 3355th Meeting*').

65 See *ILC Report 58th Session*, UN Doc A/61/10 (n 41) 407, 251, which reproduces the '[c]onclusions of the work of the Study Group' on the 'Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law'. See generally International Law Commission, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, 58th sess, UN Doc A/CN.4/L.682 (13 April 2006).

66 See, eg, *ILC Provisional Summary Record 3355th Meeting*, UN Doc A/CN.4/SR.3355 (n 64) 5–7 (Tladi), 10 (Wood), 14 (Park); International Law Commission, *Provisional Summary Record of the 3356th Meeting*, 69th sess, 1st pt, UN Doc A/CN.4/SR.3356 (9 June 2017) 3 (Oral); International Law Commission, *Provisional Summary Record of the 3358th Meeting*, 69th sess, 1st pt, UN Doc A/CN.4/SR.3358 (9 June 2017) 9 (Vázquez-Bermúdez).

67 International Law Commission, *Report of the International Law Commission on the Work of Its Sixty-Ninth Session*, UN GAOR, 72nd sess, Supp No 10, UN Doc A/72/10 (2017) 150 [66] (Draft Guideline 9).

evidence by international courts and tribunals.[68] During the discussion, ILC members expressed various reservations regarding the structure and documentation of the report while also questioning the need for a separate DG on implementation, the substance of which appeared partly redundant given the characterisation of the obligation of due diligence in a previous DG.[69] After numerous amendments and a significant overhaul by the drafting committee, three DGs on implementation, compliance and dispute settlement were adopted.[70]

Having completed the discussion on the five reports, the ILC concluded the first reading of the 12 DGs and decided to transmit them to governments and international organisations for comments and observations.[71] A second reading could start as soon as mid-2020, at the 72nd session of the ILC.[72]

III THE ILC'S GENERAL APPROACH TO THE PROTECTION OF THE ATMOSPHERE

This Part analyses the ILC's approach to the topic. It first reviews the initial debate on whether the project should be conducted at all. A second section analyses its methodology. A final section examines the conceptual framework progressively established by the ILC.

A *A Controversial Project*

From the outset, several ILC members and state representatives at the Sixth Committee strongly opposed the project on the protection of the atmosphere.[73] A US representative contended for instance that this area of law 'was treaty-based, focused and relatively effective'.[74] Similarly, in ILC member Huang Huikang's view, 'what protection of the atmosphere lacked was not regulations, but concrete commitments and substantive action, which depended to a considerable degree on the political will of States'.[75] Moreover, concerns were expressed that the work of

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68 Shinya Murase, Special Rapporteur, *Fifth Report on the Protection of the Atmosphere*, 70th sess, UN Doc A/CN.4/711 (8 February 2018) 26–50 [47]–[103] ('*Fifth Report*').

69 See, eg, International Law Commission, *Provisional Summary Record of the 3409th Meeting*, 70th sess, 1st pt, UN Doc A/CN.4/SR.3409 (13 July 2018) 12 (Park) ('*ILC Provisional Summary Record 3409th Meeting*').

70 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 158 [73], 160–1 [77] (Draft Guidelines 10, 11 and 12).

71 Ibid 158 [73]–[76].

72 Ibid 158 [76]. See *Statute of the International Law Commission*, UN Doc A/RES/174(II) (n 3) arts 16(h)–(i), 20–22.

73 A review of the summary records of the 18th to 30th meetings of the Sixth Committee at the 66th session and its 18th to 25th meetings at the 67th session of the UN General Assembly (2011 and 2012) shows that Japan, Austria, Slovenia and Algeria supported the project; US, UK, Netherlands, France and Russia opposed the project; China and Canada (which supported at first) suggested postponing to a next quinquennium.

74 *Summary Record of the 20th Meeting*, UN GAOR, 6th Comm, 66th sess, Agenda Item 81, UN Doc A/C.6/66/SR.20 (23 November 2011) 4 [15] (Simonoff). See also *Summary Record of the 19th Meeting*, UN GAOR, 6th Comm, 67th session, Agenda Item 79, UN Doc A/C.6/67/SR.19 (4 December 2012) 19 [118] (Buchwald) ('*Summary Record 19th Meeting*'), stating that '[a]n overarching legal framework for protection of the atmosphere was unnecessary, since various long-standing instruments already provided sufficient general guidance to States in their development, refinement and implementation of treaty regimes at the global, regional and subregional levels'.

75 *ILC Provisional Summary Record 3249th Meeting*, UN Doc A/CN.4/SR.3249 (n 57) 5 (Huang).

the ILC on the topic could interfere with political negotiations[76] or otherwise 'upset the balance achieved'[77] through such negotiations, in particular in relation to climate change.

Oddly enough, these comments assumed that the current treaty regimes for the protection of the atmosphere were effective, despite states' consensus on the shortcomings of the climate regime.[78] As the project's proponent highlighted, it was unclear whether discussions on general international law in the ILC were likely to have any significant impact on much more specific negotiations in the *UNFCCC* regime — and, if so, why this impact would be counterproductive.[79] The objective of the project had never been to 'revolutionize law in order to force the hand of States',[80] but only to remind 'States that the protection of the atmosphere was not a field governed solely by the law of a few treaties'.[81] As such, the project could contribute to the object of the ILC to promote 'the progressive development of international law and its codification'.[82] It is perhaps unsurprising that the fiercest opponents to the projects were the representatives of some of the most powerful states,[83] who may anticipate better chances for the promotion of their national interests in negotiations than in litigation.

ILC members also expressed concern that the topic of climate change was simply too 'politically controversial' to permit the ILC to carry out the project.[84] As a matter of principle, however, the applicability of rules of international law is

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76 See, eg, International Law Commission, *Provisional Summary Record of the 3247th Meeting*, 67th sess, 1st pt, 3247th mtg, UN Doc A/CN.4/SR.3247 (8 June 2015) 3 (Wood) ('*ILC Provisional Summary Record 3247th Meeting*').

77 *Summary Record of the 21st Meeting*, UN GAOR, 6th Comm, 69th sess, 21st mtg, Agenda Item 78, UN Doc A/C.6/69/SR.21 (18 November 2014) 22 [135] (Zabolotskaya).

78 See, eg, 'Talanoa Call for Action', *2018 Talanoa Dialogue Platform* (Web Page, 2018) <https://unfccc.int/news/join-the-talanoa-call-for-action>, archived at <https://perma.cc/9UJW-NRHW>.

79 See International Law Commission, *Provisional Summary Record of the 3311th Meeting*, 68th sess, 1st pt, UN Doc A/CN.4/SR.3311 (8 July 2016) 3 (Niehaus) ('*ILC Provisional Summary Record 3311th Meeting*'), noting that 'it was difficult to understand how a set of clear, objective, non-binding legal guidelines could conflict with political initiatives in the same area and having the same objectives. On the contrary, it might be assumed that those guidelines would support such negotiations.' See also Peter H Sand and Jonathan B Wiener, 'Towards a New International Law of the Atmosphere?' (2016) 7(2) *Goettingen Journal of International Law* 195, 211.

80 *ILC Provisional Summary Record 3249th Meeting*, UN Doc A/CN.4/SR.3249 (n 57) 6 (Forteau). But see International Law Commission, *Provisional Summary Record of the 3213th Meeting*, 66th sess, 1st pt, UN Doc A/CN.4/SR.3213 (16 July 2015) 10 (Nolte) ('*ILC Provisional Summary Record 3213th Meeting*'), conceding that '[t]he most important decisions with regard to the protection of the atmosphere must be taken at the political level; the Commission could neither prescribe specific decisions or measures on the matter, nor compensate for the lack thereof'.

81 *ILC Provisional Summary Record 3213th Meeting*, UN Doc A/CN.4/SR.3213 (n 80) 11 (Nolte).

82 See *Statute of the International Law Commission*, UN Doc A/RES/174(II) (n 3) art 1(1).

83 See above n 73. ILC members often took the same position as their state of nationality, even though they are supposed to act in an individual capacity.

84 Donald McRae, 'The Work of the International Law Commission, 2007–2011: Progress and Prospects' (2012) 106(2) *American Journal of International Law* 322, 337. See also Alain Pellet, 'The ILC Adrift? Some Reflexions from Inside' in Miha Pogačnik (ed), *Challenges of Contemporary International Law and International Relations: Liber Amicorum in Honour of Ernest Petrič* (European Faculty of Law, 2011) 299, 309.

not excluded by the political nature of the matter which involves a legal question.[85] The International Court of Justice ('ICJ') is adamant that it has 'never shied away from a case brought before it merely because it had political implications or because it involved serious elements of the use of force'.[86] In particular, 'the fact that negotiations are being actively pursued during the … proceedings is not, legally, any obstacle to the exercise by the Court of its judicial function'.[87] When the ICJ could decide a dispute related to the protection of the atmosphere, when states have to comply with their obligations under international law and when domestic courts may also need to interpret international law, the ILC could have a role to play in providing a coherent interpretation of some of the key principles, thus helping organise the debate on the law applicable to the protection of the atmosphere.

From a more practical point of view, however, concerns regarded the *capacity* of the ILC to carry out a rigorous and independent analysis of the topic. The ILC is an expert body,[88] but its *Statute* does not explicitly guarantee its independence and, in recent practice, ILC members have acted concomitantly as state officials.[89] Moreover, as a result of successive cuts to the United Nations' budget, ILC members receive no meaningful compensation[90] — which means that they need to carry out remunerative activities — and little assistance from the UN Secretariat.[91] The project's opponents suggested that the ILC lacked the expertise to deal with the topic's 'scientific and technical aspects',[92] to the point that this could 'jeopardize its own authority'.[93] But the ILC's legitimacy would also fare poorly in the long-term if it was to remain entirely silent on the legal aspects of an era-defining issue such as climate change.

Two years of informal negotiations followed the inclusion of the topic on the ILC's long-term programme of work in 2011. Finally, at the last meeting of the 65th session in 2013, the ILC allowed the project to start based on an 'Understanding' regarding its scope and nature. According to this 'Understanding', the work would 'not … interfere with relevant political negotiations, including on climate change, ozone depletion, and long-range transboundary air pollution'.[94] Moreover, it would

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85 The closest equivalent to the US political question doctrine appears to be the theories on the concept of sovereignty, such as the theory of the *domaine réservé*, which only apply in relation to internal issues: see generally Katja S Ziegler, 'Domaine Réservé' in *Max Planck Encyclopedia of Public International Law* (Oxford University Press, online at April 2013).

86 *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America) (Jurisdiction and Admissibility)* [1984] ICJ Rep 392, 435 [96].

87 *Aegean Sea Continental Shelf (Greece v Turkey) (Judgment)* [1978] ICJ Rep 3, 12 [29].

88 See *Statute of the International Law Commission*, UN Doc A/RES/174(II), (n 3) art 2(1).

89 See generally Pellet (n 84) 301–2.

90 See *Comprehensive Study of the Question of Honorariums Payable to Members of Organs and Subsidiary Organs of the United Nations*, GA Res 56/272, 56th sess, 97th plen mtg, Agenda Item 122, UN Doc A/RES/56/272 (23 April 2002, adopted 27 March 2002) para 1: while the *Statute of the International Law Commission* (adopted 21 November 1947) art 13 provides for a 'special allowance', the General Assembly currently sets this allowance to USD1 per year.

91 See Pellet (n 84) 300.

92 *Summary Record 19th Meeting*, UN Doc A/C.6/67/SR.19 (n 74) 15 [91] (Belliard, France).

93 *ILC Provisional Summary Record 3213th Meeting*, UN Doc A/CN.4/SR.3213 (n 80) 10 (Nolte).

94 *ILC Report 65th Session*, UN Doc A/68/10 (n 27) 115 [168].

> not deal with, but is also without prejudice to, questions such as: liability of States and their nationals, the polluter-pays principle, the precautionary principle, common but differentiated responsibilities, and the transfer of funds and technology to developing countries.[95]

Lastly, the project's outcome would consist of 'draft guidelines that do not seek to impose on current treaty regimes legal rules or legal principles not already contained therein'.[96]

Much of the ILC's debates in the following years orbited around the 'Understanding'. Outspoken opponents to the project denounced any allusions to climate change or to the *UNFCCC* in Murase's reports as violations of the 'Understanding' and potential interferences with international negotiations,[97] even though such a strict reading of the 'Understanding' would have left very few matters, if any, to be discussed.[98] The frustration this created for the project's proponents was reflected in Enrique Candioti's characterisation of the 'Understanding' as

> a disgrace, signifying a departure by the Commission from its traditional working methods and imposing a number of conditions that curbed the Special Rapporteur's freedom to investigate a subject before he had even started work on it.[99]

Other ILC members flagged the risk that the 'Understanding' could be used as 'a straitjacket'[100] or suggested that the Commission 'had chained the Special Rapporteur and asked him to run'.[101]

The 'Understanding' hindered the project considerably.[102] Except for some fleeting references smuggled into the Commentaries, the DGs adopted on first reading contain no substantive discussion of the principle of common but differentiated responsibilities and respective capabilities ('CBDRRC'), the precautionary approach, sustainable development or questions of liability, among other key principles of international environmental law. More generally, long, recurring discussions on the interpretation of the 'Understanding' distracted

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95 Ibid.

96 Ibid.

97 See, eg, International Law Commission, *Provisional Summary Record of the 3244th Meeting*, 67th sess, 1st pt, 3244th mtg, UN Doc A/CN.4/SR.3244 (18 December 2015) 6 (Park); International Law Commission, *Provisional Summary Record of the 3246th Meeting*, 67th sess, 1st pt, 3246th mtg, UN Doc A/CN.4/SR.3246 (11 January 2016) 5 (Murphy) ('*ILC Provisional Summary Record 3246th Meeting*').

98 See International Law Commission, *Provisional Summary Record of the 3245th Meeting*, 67th sess, 1st pt, 3245th mtg, UN Doc A/CN.4/SR.3245 (2 June 2015) 10 (Tladi), highlighting the importance of respecting the 'Understanding', yet immediately recommending discussions of the common but differentiated responsibilities and respective capabilities ('CBDRRC') principle, without realising that this principle is also excluded from the scope of the project.

99 International Law Commission, *Provisional Summary Record of the 3212th Meeting*, 66th sess, 1st pt, 3212th mtg, UN Doc A/CN.4/SR.3212 (30 June 2014) 7 (Candioti) ('*ILC Provisional Summary Record 3212th Meeting*').

100 Ibid 9 (Vázquez-Bermúdez).

101 International Law Commission, *Provisional Summary Record of the 3410th Meeting*, 70th sess, 1st pt, 3410th mtg, UN Doc A/CN.4/SR.3410 (13 July 2018) 13 (Peter) ('*ILC Provisional Summary Record 3410th Meeting*').

102 International Law Commission, *Provisional Summary Record of the 3413th Meeting*, 70th sess, 1st pt, 3413th mtg, UN Doc A/CN.4/SR.3413 (23 July 2018) 3 (Murase).

considerable attention away from well-needed substantive discussions on the content of Murase's reports.[103]

This only exacerbated the lack of thorough preparatory research and analysis. It is unfortunate that large sections of Murase's reports built heavily on drafts produced by students on only vaguely related topics,[104] but otherwise very sparingly on the secondary literature and previous codifications of international environmental law.[105] One report presented an extensive review of Singapore's *Transboundary Haze Pollution Act 2014*,[106] only because the state had provided detailed documentation.[107] Several used rather abstruse concepts[108] or presented ideas that were insufficiently documented;[109] they were largely viewed as providing an imbalanced treatment of the topic,[110] containing long discussions of matters unspecific to the topic of the protection of the atmosphere regarding, for instance, the fragmentation of international law[111] or the treatment of scientific evidence.[112] Questions arguably more specific and central to the topic, such as the problematic application of the law of state responsibility to global environmental harms, were left entirely unaddressed.[113]

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103 This applies within the International Law Commission as well as beyond, including in the secondary literature. See, eg, Plakokefalos Ilias, 'International Law Commission and the Topic "Protection of the Atmosphere": Anything New on the Table?', *Shares: Research Project on Shared Responsibility in International Law* (Blog Post, 1 November 2013) <http://www.sharesproject.nl/international-law-commission-and-the-topic-protection-of-the-atmosphere-anything-new-on-the-table/>, archived at <https://perma.cc/NSL8-JHHG>; Sand and Wiener (n 79) 208–16.

104 See especially *Fifth Report*, UN Doc A/CN.4/711 (n 68) 26–48 [47]–[100], drawing on the draft provided by Mariko Fukasaka. See also M Fukasaka, 'The Adversary System of the International Court of Justice: An Analytical Study' (Doctoral Thesis, University College London, 2016).

105 See generally Sand and Wiener (n 79) 198–208.

106 *Transboundary Haze Pollution Act 2014* (Singapore).

107 See *Fifth Report*, UN Doc A/CN.4/711 (n 68) 12–16 [22]–[29]. See also International Law Commission, *Provisional Summary Record of the 3405th Meeting*, 70th sess, 1st pt, 3405th mtg, UN Doc A/CN.4/SR.3405 (3 July 2018) 9, where Murase recognises assistance provided by the Attorney-General's Chambers of Singapore. See also *ILC Provisional Summary Record 3410th Meeting*, UN Doc A/CN.4/SR.3410 (n 101) 10 (Murphy).

108 See, eg, *Fifth Report*, UN Doc A/CN.4/711 (n 68) 8 [14], referring to a typology between 'obligation of measures,' 'obligation of methods' and 'obligation of maintenance'. See also *ILC Provisional Summary Record 3409th Meeting*, UN Doc A/CN.4/SR.3409 (n 69) 12 (Park), calling this typology 'rather artificial' and subject to diverging interpretation. See also International Law Commission, *Provisional Summary Record of the 3412th Meeting*, 70th sess, 1st pt, 3412th mtg, UN Doc A/CN.4/SR.3412 (23 July 2018) 10 (Wood) ('*ILC Provisional Summary Record 3412th Meeting*').

109 See, eg, *ILC Provisional Summary Record 3355th Meeting*, UN Doc A/CN.4/SR.3355 (n 64) 5 (Tladi), noting that '[t]he only authority for that statement was the Special Rapporteur's own book'.

110 See, eg, *ILC Provisional Summary Record 3409th Meeting*, UN Doc A/CN.4/SR.3409 (n 69) 6 (Oral), 10 (Peter), 13 (Park); *ILC Provisional Summary Record 3410th Meeting*, UN Doc A/CN.4/SR.3410 (n 101) 9 (Murphy), noting that 'the analysis in the report was selective and lacking in balance, and that it had ultimately resulted in draft guidelines that were dubious in many, if not most, respects'. See also *ILC Provisional Summary Record 3412th Meeting*, UN Doc A/CN.4/SR.3412 (n 108) 12 (Petrič), 13 (Šturma).

111 *Fourth Report*, UN Doc A/CN.4/705 (n 63) 5–6 [8]–[10], 10 [12].

112 *Fifth Report*, UN Doc A/CN.4/711 (n 68) 26–48 [47]–[100].

113 See below Part IV(D).

B *A Conservative Methodology*

The *Statute* of the ILC distinguishes works aimed at the 'progressive development' and at the 'codification' of international law,[114] but in practice, the distinction is rather a matter of degree: any codification implies some 'development' through the systematisation of the rules derived from particular authorities. Murase's Second Report suggested that the DGs would reflect existing as well as emerging norms of customary international law,[115] thus suggesting a progressive aspect which would promote the affirmation of international law as a coherent legal system, in line with the ILC's general practice. By contrast, some ILC members promoted a particularly cautious methodology consisting essentially of an inventory of the rules whose existence is already well-established, reflecting a provision of the 'Understanding' according to which the project would not 'seek to "fill" gaps in the treaty regimes'.[116]

Sean Murphy, in particular, opposed the recognition of states' general obligation to protect the atmosphere on the ground that it 'had no basis in any treaty practice, nor in any State practice, nor in case law' and 'could not be supported with reference to any of the standard sources of law'.[117] Murphy's view was seemingly that no inference could be made from obligations to protect the atmosphere from *specific* types of atmospheric harm (eg climate change, depletion of the ozone layer, transboundary air pollution) as to the existence of a *general* obligation to protect the atmosphere.

The codification of a field of law must occasionally rely on inductive reasoning, whereby a general rule is drawn from multiple specific examples and possibly on analogical reasoning, whereby a rule applicable in some circumstances is applied in analogous circumstances. Contrary to Murphy's contention, the existence of a general obligation to protect the atmosphere could reasonably be inferred from the existence of specific obligations of states to prevent most known forms of atmospheric harm.[118] Likewise, an analogy could be drawn between transboundary environmental harm and global environmental harm: the prohibition of the former, now well recognised by international courts and tribunals,[119] provides some support for the protection of the latter, which is of greater concern.[120]

Analysing the debate taking place at the ILC, Georg Nolte justly identified two opposing views of international law, either as essentially 'a body of established rules agreed by States in treaties', or 'as a body of rules and principles, which were

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114 *Statute of the International Law Commission*, UN Doc A/RES/174(II) (n 3) arts 16, 18.

115 See *Second Report*, UN Doc A/CN.4/681 (n 55) 16 [25].

116 *ILC Report 65th Session*, UN Doc A/68/10 (n 27) 115 [168].

117 *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 5 (Murphy).

118 See, eg, *Third Report*, UN Doc A/CN.4/692 (n 59) 17–19 [35]–[38], which cites various authorities.

119 See, eg, *Trail Smelter (United States of America v Canada) (Awards)* (1938/1941) 3 RIAA 1905, 1965 ('*Trail Smelter*'); *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep 226, 241–2 [29] ('*Nuclear Weapons*'); *Iron Rhine Railway (Belgium v Netherlands) (Award)* (Permanent Court of Arbitration, Case No 2003-02, 24 May 2005) [222]; *Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judgment)* [2010] ICJ Rep 14, 55–6 [101] ('*Pulp Mills*'); *South China Sea (Philippines v China) (Award)* (Permanent Court of Arbitration, Case No 2013-19, 12 July 2016) [944] ('*South China Sea*').

120 But see below n 195 and accompanying text.

all interlinked and supplemented the rules expressly agreed by States, ensuring their coherence without holding back their development'.[121] The two visions diverge significantly in areas, such as the protection of the atmosphere, which have only partially been addressed by treaties. If international law is to be approached as a coherent normative system, rules applicable to the protection of the atmosphere could not only be induced from the general practice of states accepted as law, but also deduced from general principles. For instance, assuming (as Murphy contends) that no general obligation to protect the atmosphere could be *induced* from treaty obligations to prevent specific types of atmospheric harm, a general obligation to protect the atmosphere could nonetheless be *deduced* from the principles of territorial sovereignty and equality of states (as Murase suggested):[122] a state that fails to take appropriate measures to protect the atmosphere is potentially encroaching on the sovereign rights of other states.

There is nothing new in this deductive approach.[123] When identifying states' obligation to prevent transboundary environmental harm, the ICJ in *Pulp Mills on the River Uruguay* ('*Pulp Mills*') did not undertake a comprehensive survey of state practice and opinio juris, nor did it immediately mention its previous decision in *Legality of the Threat or Use of Nuclear Weapons*,[124] as Murphy's contention would suggest it should. Rather, the ICJ noted that the principle '*ha[d] its origins* in the due diligence that is required of a State in its territory',[125] referring to a state's 'obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States'.[126] A similar reasoning could be applied to deduce the existence of a due diligence obligation of states to protect the atmosphere.[127]

The principles of territorial sovereignty and equality of states are not the only principles from which rules relevant to the project could be inferred. Any degradation of the environment has far-reaching implications not just for states and their territories, but also for the humans and societies that inhabit them; it affects ecosystems as well as biological diversity, the marine environment as well as the world cultural and natural heritage. Commenting on a reference to the *Convention on Biological Diversity* ('*CBD*') in one of Murase's reports, Murphy stated that this treaty 'had nothing to do with the atmosphere'.[128] To the contrary, the parties to the *CBD* recognised climate change as 'a major and growing driver of biodiversity loss'[129] based on scientific evidence of climate change's enormous

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121 *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 10 (Nolte).

122 See *Second Report*, UN Doc A/CN.4/681 (n 55) 32 [52].

123 See Ibid 22–3 [34]. See also 'Draft Conclusions on Identification of Customary International Law' in *Report of the International Law Commission at its Seventieth Session*, UN Doc A/73/10 (n 1) 119–56 [65]–[66], 126 (Conclusion 2 Commentary [5]). See generally Stefan Talmon, 'Determining Customary International Law: The ICJ's Methodology between Induction, Deduction and Assertion' (2015) 26(2) *European Journal of International Law* 417, 427.

124 *Nuclear Weapons* (n 119) 241–2 [29]; *Pulp Mills* (n 119).

125 *Pulp Mills* (n 119) 55–6 [101] (emphasis added).

126 Ibid, citing *Corfu Channel (United Kingdom v Albania) (Merits)* [1949] ICJ Rep 4, 22.

127 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 174–5 [78] (Draft Guideline 3).

128 *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 4 (Murphy); *CBD* (n 15).

129 Conference of the Parties to the Convention on Biological Diversity, *Biodiversity and Climate Change*, 14th mtg, Agenda Item 21, UN Doc CBD/COP/DEC/14/5 (30 November 2018, adopted 17–29 November 2018) Preamble para 5.

impact on species.[130] As climate change affects biological diversity, the obligation to protect biological diversity certainly implies an obligation to mitigate climate change. Just like the principles of territorial sovereignty and equality of states, obligations under the *CBD*, *UNCLOS* and the *Convention Concerning the Protection of the World Cultural and Natural Heritage*[131] — or under international human rights law[132] — entail a due diligence obligation of states to protect the atmosphere. Regrettably, while the DGs recognise the need for 'harmonization and systemic integration' of rules from various fields of international law 'in order to give rise to a single set of compatible obligations',[133] neither Murase's reports nor the DGs nor their commentary analyse the relevance of these legal regimes to the topic.

Overall, ILC members have repeatedly expressed concerns about the potential implications of the project or its findings. Sir Michael Wood opposed the project for fear that it could 'provide fodder for litigation against States'.[134] Similar concerns were instrumental to the opposition to a characterisation of the protection of the atmosphere as a 'common concern of humankind', with potential implications for the *erga omnes* nature of certain obligations;[135] they were also present in the ILC's analysis of the obligation of states to protect the atmosphere from global environmental harm.[136] Such reasoning represents an appeal to consequences (*argumentum ad consequentiam*), a logical fallacy through which the truth-value of a statement is assessed based on a normative judgment of its consequences. In logic, a factual statement (eg the recognition of the existence of a rule) is no less true because its consequences are unclear, immense or viewed (by some) as undesirable. When discussing potential implications as part of the assessment of the law on the protection of the atmosphere, ILC members threaded in the policy sphere, improvising themselves, without any legitimacy to do so, as decision-makers able to determine what rule *should* or *should not* be recognised.

C *Conceptual Framework*

The DGs suggest an unneeded new terminology by introducing a distinction between 'atmospheric pollution' and 'atmospheric degradation', while the ILC rejected the well-accepted idea that the protection of the atmosphere is a 'common concern of humankind'.

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130 See, eg, *Climate Change 2014* (n 4) 65–6.

131 See above nn 15–17.

132 See, eg, *International Covenant on Economic, Social and Cultural Rights*, opened for signature 16 December 1966, 993 UNTS 3 (entered into force 3 January 1976) art 2(1) ('*ICESCR*'); *International Covenant on Civil and Political Rights*, opened for signature 16 December 1966, 999 UNTS 171 (entered into force 23 March 1976) art 2(1). See also Human Rights Committee, *General Comment No 31: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant*, 80th sess, 2187th mtg, UN Doc CCPR/C/21/Rev.1/Add.13 (26 May 2004, adopted 29 March 2004) [6]–[8].

133 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 160 [77] (Draft Guideline 9).

134 *ILC Provisional Summary Record 3355th Meeting*, UN Doc A/CN.4/SR.3355 (n 64) 9 (Wood).

135 See below n 179 and accompanying text.

136 See below n 196 and accompanying text.

1 *Atmospheric Pollution and Atmospheric Degradation*

The DGs are based on a distinction between the protection of the atmosphere from atmospheric pollution and its protection from atmospheric degradation.[137] Atmospheric *pollution* refers to classical transboundary issues, which affect a specific area outside the state of origin.[138] The affected area can be situated within the territory of another state or beyond national jurisdiction, for instance, in the high seas. By contrast, atmospheric *degradation* relates to the 'alteration of the global atmospheric conditions', for instance, through the emissions of substances that cause climate change or the depletion of the ozone layer.[139] The terminology, which is not reflective of the predominant usage,[140] is needlessly confusing:[141] terms such as 'transboundary pollution' (or 'transboundary air pollution') and 'global atmospheric degradation,' which are used in the Commentary,[142] would convey the same notions far more effectively.

More specifically, DG 1(b) defines 'atmospheric pollution' as the introduction into the atmosphere of 'substances contributing to deleterious effects extending beyond the State of origin of such a nature as to endanger human life and health and the Earth's natural environment'.[143] Although pollution is generally defined as the introduction of 'substances or energy',[144] the definition only mentions 'substances', while the Commentary notes that, for the purpose of these DGs, 'the word "substances" includes "energy"'.[145] This convoluted terminology reflects the difficulty for the ILC members to reach consensus on even the most benign and inconsequential questions.[146]

By contrast, DG 1(c) defines 'atmospheric degradation' in relation to '*significant* deleterious effects of such a nature as to endanger human life and health and the Earth's natural environment'.[147] The addition of the word 'significant' suggests the rather counter-intuitive conclusion that the threshold of

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137 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 173 [78] (Draft Guideline 2(1)).

138 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 170 [78] (Draft Guideline 1 Commentary [7]–[8]).

139 See ibid 172 [78] (Draft Guideline 1 Commentary [11]).

140 See, eg, *Massachusetts v Environmental Protection Agency*, 549 US 497, 528–9 (2007), qualifying GHG emissions as 'air pollutants'. But see *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 170 [78] (Draft Guideline 1 Commentary [7]), referring to 'existing treaty practice', of which no specific example is provided. 'Air pollution' (rather than 'atmospheric pollution') is typically used to refer to localised or transboundary concerns, but not specifically to exclude global environmental harm.

141 While Draft Guidelines 1(b) and (c) define these two concepts, they do not explicitly distinguish between the territorial and global contexts in which they take place: *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 159 [77] (Draft Guidelines 1(b)–(c)).

142 See, eg, ibid 170 [78] (Draft Guideline 1 Commentary [6]), 173 [78] (Draft Guideline 2 Commentary [2]).

143 Ibid 159 [77] (Draft Guideline 1(b)).

144 See, eg, *UNCLOS* (n 16) art 1(1)(4); *Convention on Long-Range Transboundary Air Pollution*, opened for signature 13 November 1979, 1302 UNTS 217 (entered into force 16 March 1983) art 1(a).

145 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 171 [78] (Draft Guideline 1 Commentary [9]).

146 Energy, as a source of atmospheric pollution, would most likely refer to light, noise or heat, which may seldom reach the threshold of significant transboundary environmental harm. Radioactive pollution is generally accompanied by the release of radioactive substances.

147 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 159 [77] (Draft Guideline 1(c)) (emphasis added).

harm for atmospheric degradation (ie global environmental harm) should be higher than the threshold applicable to atmospheric pollution (ie transboundary environmental harm). Presumably, if some *insignificant* damage must be explicitly excluded from the scope of the DGs, this should be in relation to harm confined to a specific area rather than the harm affecting the entire atmospheric system, which is more serious by nature. Rather inconsistently, DG 4 recognises the requirement for an EIA to be undertaken for proposed activities 'which are likely to cause *significant* adverse impact on the atmosphere', whether through atmospheric pollution or degradation.[148]

The distinction between atmospheric pollution and atmospheric degradation is unnecessary because, surprisingly, the DGs make *no* distinction between the rules applicable to atmospheric pollution and those applicable to atmospheric degradation.[149] It is highly unlikely that the exact same rules apply in the exact same way to transboundary and global environmental harm.[150] The obligation to protect the atmosphere, to conduct an EIA and to cooperate — to mention but a few — are likely to have at least some particularities in the two different contexts.[151] In the Commentaries, the distinction is only made to acknowledge that there is stronger evidence of the obligations to protect the atmosphere and to conduct an EIA in relation to atmospheric pollution, than in relation to atmospheric degradation.[152]

The division of the protection of the atmosphere between protection from atmospheric pollution and from atmospheric degradation excludes consideration for environmental impacts taking place exclusively within the country of origin. While Murase's First Report may have appeared somewhat ambivalent,[153] several ILC members were anxious to ensure that the project would not tread into 'purely local' matters,[154] and the Commentaries confirm that the DGs do not 'deal with domestic or local pollution'.[155] This exclusion of domestic environmental harm fails to reflect emerging trends in international environmental law, for instance based on the progressive recognition of a right to a healthy environment.[156]

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148 Ibid 159 [77] (Draft Guideline 4) (emphasis added). See also at 178 [78] (Draft Guideline 4 Commentary [5]).

149 Except for their definition in Draft Guideline ('DG') 1, every single mention of one concept comes along with that of the other: see ibid 158–61 [77] (Preamble para 4, Draft Guidelines 2(1), 3–4, 8(1)–(2), 9(3), 10(1), 11(1), 12(1)).

150 Duvic-Paoli (n 19) 78.

151 With regard to the obligation to cooperate, see, eg, Pierre-Marie Dupuy and Jorge E Viñuales, *International Environmental Law* (Cambridge University Press, 2nd ed, 2018) 74.

152 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 176–7 (Draft Guideline 3 Commentary [7]), 178–9 (Draft Guideline 4 Commentary [6]).

153 See DG 2 as proposed in *First Report*, UN Doc A/CN.4/667 (n 50) 52 [78]. But see at 50–1 [76].

154 *ILC Provisional Summary Record 3212th Meeting*, UN Doc A/CN.4/SR.3212 (n 99) 10 (Wood). See also International Law Commission, *Provisional Summary Record of the 3211th Meeting*, 66th sess, 1st pt, 3211th mtg, UN Doc A/CN.4/SR.3211 (20 June 2014) 9 (Forteau) ('*ILC Provisional Summary Record 3211th Meeting*'); *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 4 (Wood); *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 6 (Murphy).

155 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 173 [78] (Draft Guideline 2 Commentary [3]).

156 See, eg, John H Knox and Ramin Pejan (eds), *The Human Right to a Healthy Environment* (Cambridge University Press, 2018). Regarding the application of the obligation to protect and preserve the marine environment to territorial seas, see *South China Sea* (n 119) [940].

Although the ILC may deem that it is too early to recognise this trend, a no-prejudice clause would ensure that the DGs at least do not hinder the progressive development of international law.

2 *Common Concern of Humankind*

Murase's First Report characterised the protection of the atmosphere as a 'common concern of humankind'[157] and suggested that this could imply the existence of *erga omnes* obligations.[158] This characterisation proved extraordinarily divisive within the ILC and the Sixth Committee. Under pressure from his peers, Murase agreed to move the concept of 'common concern of humankind' to the Preamble of the DGs, and then conceded to replace it by the notion of a 'pressing concern of the international community as a whole'.[159] While 'common concern of humankind' is a concept used in several treaties[160] and largely acknowledged as a concept of international environmental law,[161] 'pressing concern of the international community as a whole' is merely a criterion used by the ILC to identify topics of work.[162]

At first, ILC members and state representatives firmly opposed the reference to common concern of humankind by highlighting a lack of legal basis,[163] despite the inclusion of the concept in the *UNFCCC* in relation to climate change and its adverse effects[164] and in the *CBD* in relation to the conservation of biological diversity.[165] By mid-2015, Sean Murphy suggested that the term had enjoyed 'very limited use in treaties'[166] since the adoption of these two treaties in 1992, concluding that 'States no longer wanted to use the phrase'.[167] This position was in tension with the reference to 'global concern' in the *Minamata Convention on Mercury*, adopted in 2013, in relation to the long-range atmospheric transport of

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157 *First Report*, UN Doc A/CN.4/667 (n 50) 57 [90].

158 Ibid 57 [89].

159 *ILC Provisional Summary Record 3260th Meeting*, UN Doc A/CN.4/SR.3260 (n 57) 6 (Forteau), presenting the statement of the Chairman of the Drafting Committee.

160 See below nn 164, 165.

161 See generally Dupuy and Viñuales (n 151) 98.

162 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 164–5 [78] (Preamble Commentary [9]).

163 See, eg, *ILC Provisional Summary Record 3211th Meeting*, UN Doc A/CN.4/SR.3211 (n 154) 6 (Tladi), 9 (Forteau); *ILC Provisional Summary Record 3212th Meeting*, UN Doc A/CN.4/SR.3212 (n 99) 6 (Šturma); *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 6 (Hassouna). See also *Summary Record of the 22nd Meeting*, UN GAOR, 6th Comm, 22nd mtg, 69th sess, UN Doc A/C.6/69/SR.22 (11 November 2014) 8 [35] (Alabrune, France) ('*Summary Record 22nd Meeting*').

164 *UNFCCC* (n 5) Preamble para 2. See also 'Declaration of Climate Change Legal Principles at the 2014 Conference' (n 30) 333 (Draft Article 2), 334 (Draft Article 2 Commentary [4]), characterising the application of this concept to climate change as 'universally accepted'.

165 *CBD* (n 15) Preamble para 3.

166 Sean D Murphy, 'Identification of Customary International Law and Other Topics: The Sixty-Seventh Session of the International Law Commission' (2015) 109(4) *American Journal of International Law* 822, 833.

167 *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 4 (Murphy). Sean Murphy mentioned the absence of any mention of the concept in the *Kyoto Protocol to the United Nations Framework Convention on Climate Change* ('*Kyoto Protocol*') and its *Doha Amendment*: at 4. But the very short preamble to the *Kyoto Protocol* 'recall[ed] the provisions of the Convention', while the *Doha Amendment* does not have a Preamble: *Kyoto Protocol* (n 7) Preamble para 3; *Doha Amendment* (n 9).

mercury.[168] Murphy's argument became entirely untenable by December 2015, when the *Paris Agreement* acknowledged, once again, climate change as a 'common concern of humankind'.[169] At the following session of the ILC, Donald M McRae noted the 'rather disturbing role reversal',[170] where the ILC, supposed to promote the progressive development of international law, was actually a step behind states.

The mention of 'common concern of humankind' in the *Paris Agreement* did not lead to the re-introduction of this concept in the DGs or their Preamble. Unabated, Sean Murphy insisted that 'there was no treaty, whether universal, regional or bilateral, asserting that the *degradation of atmospheric conditions* was a common concern of humankind', while no international court or tribunal 'had ever asserted such a proposition'.[171] Murphy thus ignored, once again,[172] the possibility of inferring a general rule from multiple consistent cases. As Ernest Petrič recognised, the concept of common concern was certainly 'well established in international environmental law',[173] and in particular in relation to climate change and the protection of biological diversity: absent any contrary evidence, the ILC should have recognised the applicability of this concept, if not to the protection of the atmosphere as a whole, at least in the context of atmospheric degradation.[174]

Eventually, the instrumental ground for the exclusion of 'common concern of humankind' from the DGs and their Preamble is one which should never have been considered in an expert body in charge of the codification of international law: the possible implications of the concept. At the Sixth Committee, France expressed concern that interpreting the concept could lead to the recognition of the protection of the environment as 'an obligation *erga omnes*, incumbent on all States, and could thus serve as a basis for international contentious proceedings, which would be unacceptable'.[175] Similar concerns were repeatedly voiced by some ILC members.[176] The Commentary of the DGs acknowledges that concerns regarding 'the legal consequences of the concept' being 'unclear' were the ground on which the ILC decided not to include the concept in the DGs.[177] This reasoning is a clear

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168 *Minamata Convention on Mercury*, opened for signature 10 October 2013, 55 ILM 582 (entered into force 16 August 2017) Preamble para 1 ('*Minamata Convention on Mercury*').

169 *Paris Agreement* (n 5) Preamble para 11.

170 *ILC Provisional Summary Record 3311th Meeting*, UN Doc A/CN.4/SR.3311 (n 79) 7 (McRae).

171 *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 3 (Murphy) (emphasis added).

172 See above n 118 and accompanying text.

173 *ILC Provisional Summary Record 3211th Meeting*, UN Doc A/CN.4/SR.3211 (n 154) 8 (Petrič).

174 But see ibid 8 (Petrič), 9 (Forteau). It is unclear whether the concept applies to *transboundary* issues (atmospheric pollution), absent clear authorities and given the lesser gravity of environmental harm confined to a particular area: see International Law Commission, *Provisional Summary Record of the 3308th Meeting*, 68th sess, 1st pt, 3308th mtg, UN Doc A/CN.4/SR.3308 (1 May 2017) 12 (Wood) ('*ILC Provisional Summary Record 3308th Meeting*').

175 *Summary Record 22nd Meeting*, UN Doc A/C.6/69/SR.22 (n 163) 8 [35] (Alabrune, France).

176 See, eg, *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 4–5 (Wood), 6 (Hassouna), 9 (Šturma), 11 (Petrič); *ILC Provisional Summary Record 3212th Meeting*, UN Doc A/CN.4/SR.3212 (n 99) 5 (Hmoud). But see *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 9 (Nolte).

177 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 164–5 [78] (Preamble Commentary [9]).

example of *argumentum ad consequentiam*, as described above.[178] When codifying the law, the ILC should recognise existing rules and concepts notwithstanding whether its members — or the Sixth Committee — like or dislike their implications. When *deciding* to reject the concept of common concern of humankind because of its possible implications, the ILC made a political assessment that it has no legitimacy to make.

The second reading of the DGs will give another chance for the ILC to recognise the protection of the atmosphere as a common concern of humankind.[179] In doing so, the ILC could play a role in interpreting the implications of this concept.[180] This concept certainly implies, as Murase indicated in his Second Report, an obligation of 'cooperation of all States on matters of a similar importance to all nations'[181] (an obligation that the ILC has identified),[182] but also, as Murase's First Report suggested, the existence of *erga omnes* obligations.[183] This does not necessarily mean, as some ILC members feared, an unlimited right of any state to invoke the responsibility of any other state (*actio populis*).[184]

IV THE RIGHTS AND OBLIGATIONS OF STATES IN RELATION TO THE PROTECTION OF THE ATMOSPHERE

This Part reviews more specific aspects of the DGs. It first examines the two key obligations recognised by the ILC: the obligation to protect the atmosphere and the obligation to cooperate. It then comments on the ILC's elusive treatment of geoengineering activities. Lastly, it delves into the consequences of non-compliance.

A *The Obligation to Protect the Atmosphere*

1 *Existence of the Obligation*

DG 3 recognises states' 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'.[185] During the ILC's deliberation, this provision appeared uncontroversial inasmuch as atmospheric pollution is concerned.[186] The obligation to prevent transboundary environmental harm is affirmed in prominent

178 See above Part III(B).

179 See generally Nadia Sánchez Castillo-Winckels, 'Why "Common Concern of Humankind" Should Return to the Work of the International Law Commission on the Atmosphere' (2016) 29(1) *Georgetown Environmental Law Review* 131.

180 *ILC Provisional Summary Record 3212th Meeting*, UN Doc A/CN.4/SR.3212 (n 99) 9 (Vázquez-Bermúdez).

181 *Second Report*, UN Doc A/CN.4/681 (n 55) 17 [26].

182 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 160 [77] (Draft Guideline 8).

183 *First Report*, UN Doc A/CN.4/667 (n 50) 57 [89]. See below Part IV(D).

184 A suggestion that the right to invoke an *erga omnes* obligation could be limited to states with a special interest could be found, for instance, in 'Oral Arguments on Jurisdiction and Admissibility', *Nuclear Tests (New Zealand v France) (Jurisdiction)* [1974] ICJ Pleadings 249, 266 (Dr Finlay).

185 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 159 [77] (Draft Guideline 3).

186 See, eg, *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 11 (Petrič).

international declarations;[187] judicial decisions recognise it as customary international law.[188] Some of the most qualified publicists characterise this obligation as the 'cornerstone' of international environmental law.[189]

By contrast, some ILC members questioned the application of this obligation to global environmental harm such as atmospheric degradation.[190] A central concern with the application of the obligation to protect the atmosphere to atmospheric degradation related to the possible consequences of the recognition of this obligation. Thus, Parvel Šturma warned about the implications of recognising an obligation to protect the atmosphere in relation to atmospheric degradation,[191] while Sean Murphy pointed more specifically to the possibility that this may facilitate litigation against developed countries.[192] This is another regrettable example of *argumentum ad consequentiam* in the ILC's deliberation on the protection of the atmosphere.[193]

More relevantly, ILC members also expressed doubts regarding the legal basis of an obligation to prevent atmospheric degradation. Murase's Second Report suggested that this obligation stems from the *sic utere tuo ut alienum non laedas* principle (use your own property in such a manner as not to injure that of another).[194] Yet, this principle assumes a bilateral relation between two states and most authorities that recognise its existence relate to a transboundary context.[195] On this ground, the Commentary to DG 3 noted that the existence of the obligation to protect the atmosphere 'is still somewhat unsettled for global atmospheric degradation'.[196]

The ILC could have gone considerably further in determining the existence of an obligation to prevent atmospheric degradation, arguably the most important aspect of the entire project. It could, for instance, have identified the elements

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187 See especially *Report of the United Nations Conference on the Human Environment*, UN Doc A/Conf.48/14/Rev.1 (1973) ch I (Principle 21) ('*Stockholm Declaration*'); *Report of the United Nations Conference on Environment and Development*, UN Doc A/CONF.151/26/Rev.1 (Vol I) (12 August 1992) annex I ('*Rio Declaration*') (Principle 2).

188 See above n 119.

189 Philippe Sands et al, *Principles of International Environmental Law* (Cambridge University Press, 3rd ed, 2012) 191.

190 See generally Duvic-Paoli (n 18) 96.

191 *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 9 (Šturma).

192 See *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 5–6 (Murphy).

193 See above Part III(B).

194 See *Second Report*, UN Doc A/CN.4/681(n 55) 32–6 [52]–[58]; *Third Report*, UN Doc A/CN.4/692 (n 59) 6–7 [13]. See generally Jutta Brunnée, 'Sic utere tuo ut alienum non laedas' in Rüdiger Wolfrum (ed), *Max Planck Encyclopedia of Public International Law* (Oxford University Press, online at March 2010).

195 See also International Law Commission, *Provisional Summary Record of the 3307th Meeting*, 68th sess, 1st pt, 3307th mtg, UN Doc A/CN.4/SR.3307 (8 July 2016) 13 (Hmoud); *ILC Provisional Summary Record 3308th Meeting*, UN Doc A/CN.4/SR.3308 (n 174) 4 (Park), 6–7 (Forteau); *ILC Provisional Summary Record 3212th Meeting*, UN Doc A/CN.4/SR.3212 (n 99) 8 (Caflisch); *ILC Report 68th Session*, UN Doc A/CN.4/703 (n 62) 6 [18]. See also above nn 119, 188.

196 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 176 [78] (Draft Guideline 3 Commentary [7]).

constitutive of a customary norm, namely opinio juris and state practice.[197] Both elements are arguably evidenced, among others, by states' universal or quasi-universal participation in multiple treaties through which they commit to make expensive efforts to address the main global environmental concerns.[198] By contrast, Sean Murphy provided no evidence in support of his contention that states and international courts and tribunals had *deliberately* confined the recognition of the prevention principle to a transboundary context.[199] To the contrary, mention of the prevention principle in the Preamble to the *Vienna Convention on the Protection of the Ozone Layer* and of the *UNFCCC* suggested that states had agreed to the relevance of the principle to climate change.[200] In *Urgenda Foundation v The Netherlands*, both parties to the dispute agreed that the prevention principle was applicable to climate change.[201]

Furthermore, support for the identification of the obligation of states to prevent atmospheric degradation could also be found from a deductive method.[202] Like in a transboundary context, the obligation of states to prevent environmental harm in a global context could be inferred from the premises of general international law. Even beyond the *sic utere* principle, which applies more obviously in a transboundary context, this obligation stems from the principle of territorial sovereignty and equality of states.[203] These principles require states to try to avoid harm that would significantly affect the territory or the livelihood of other states and their populations. The fact that atmospheric degradation affects all states, threatening the very existence of some,[204] suggests that the obligation to prevent atmospheric degradation is a corollary of premises of the international legal order.

2 *Nature of the Obligation*

DG 3 justly reflects the nature of the obligation to protect the atmosphere (or, more generally, to prevent transboundary and global environmental harm) as an obligation to exercise 'due diligence'. Consistently, the Commentary characterises

197 See *Statute of the International Court of Justice* art 38(1)(b); *ILC Report 70th Session* , UN Doc A/73/10 (n 123) 119 [65] (Conclusion 2), which forms part of the '[t]ext of the draft conclusions on identification of customary international law' contained in this report.

198 See, eg, *UNFCCC* (n 5); *Vienna Convention for the Protection of the Ozone Layer*, opened for signature 22 March 1985, 1513 UNTS 293 (entered into force 22 September 1988); *UNCLOS* (n 16); *CBD* (n 15); *Stockholm Convention on Persistent Organic Pollutants*, opened for signature 22 May 2001, 2256 UNTS 119 (entered into force 17 May 2004); *Minamata Convention on Mercury* (n 168).

199 *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 6 (Murphy).

200 *Vienna Convention for the Protection of the Ozone Layer* (n 198) Preamble para 2; *UNFCCC* (n 5) Preamble para 9. See also the formal declarations made by some of the most affected states: see above n 18.

201 *Urgenda First Instance Judgment* (n 21) [4.42].

202 See above n 124 and accompanying text. See generally Mayer, 'No-Harm Principle' (n 13).

203 *Second Report*, UN Doc A/CN.4/681 (n 55) 31–2 [51]–[52].

204 See, eg, Derek Wong, 'Sovereignty Sunk? The Position of "Sinking States" at International Law' (2013) 14(2) *Melbourne Journal of International Law* 346, 348–9.

this obligation as an obligation of conduct.[205] As such, the occurrence of atmospheric pollution or degradation does not necessarily reflect a breach of the obligation: environmental harm may occur despite requisite efforts carried out to prevent it. This observation raises essential but thorny questions regarding the standard of care applicable to this obligation: how much effort and resources must a state invest in trying to protect the atmosphere? Addressing this question in any systematic way would likely involve an interpretation of the CBDRRC principle as well as some reflections on the nature of the precautionary approach, but the 'Understanding' excluded both concepts from the scope of the project. As a result, the project could only engage with this question in the most superficial way.

Thus, Murase's Third Report highlighted the importance of taking into account the capabilities of the state[206] as well as the nature of the harm likely to result from particular activities.[207] Building by analogy on the obligation of states to protect the marine environment under *UNCLOS*[208] (whose adoption predates the recognition of the CBDRRC principle and the precautionary approach), Murase suggested that states are required to 'use the best practicable means at their disposal and in accordance with their capabilities'.[209] This language had to be watered down significantly for a relative consensus to be reached among ILC members. As a result, DG 3 refers, in the most evasive way possible, to 'appropriate measures,' while its Commentary suggests, only slightly more precisely, that the requirement extends to '*all* appropriate measures'.[210] Taking stock of the judgment of the ICJ in *Pulp Mills*, the Commentary adds that this obligation involves 'not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercise of administrative control applicable to public and private operators'.[211]

3 *EIA*

DG 4 identifies a particular implication of this due diligence obligation: the obligation of states to ensure that an EIA is undertaken for proposed activities that could impact the atmosphere.[212] This reflects a norm of customary international law whose existence was suggested in 1992 by the *Rio Declaration on Environment and Development* ('*Rio Declaration*')[213] and was identified by the

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205 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 175–6 [78] (Draft Guideline 3 Commentary [5]). See also *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 9 (Nolte); *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 6–7 (Kittichaisaree). See generally Benoit Mayer, 'Obligations of Conduct in the International Law on Climate Change: A Defence' (2018) 27(2) *Review of European, Comparative and International Environmental Law* 130, 133 ('Obligations of Conduct').

206 *Third Report*, UN Doc A/CN.4/692 (n 59) 9 [18].

207 Ibid 9 [19].

208 *UNCLOS* (n 16) art 194(1).

209 *Third Report*, UN Doc A/CN.4/692 (n 59) 11–12 [24].

210 *ILC Report 70th Session*, UN Doc A/73/10, (n 1) 175–6 [78] (Draft Guideline 3 Commentary [5]) (emphasis added).

211 Ibid. See also *Pulp Mills* (n 119) 79–80 [197].

212 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 177 [78] (Draft Guideline 4).

213 *Rio Declaration* (n 187) (Principle 17).

ICJ's 2010 judgment in *Pulp Mills*.[214] Borrowing from the language of the *Rio Declaration*, the ILC suggests that an EIA is required for activities that 'are *likely* to cause significant adverse impact on the atmosphere'.[215] This phrasing is problematic for two reasons. First, it is not always possible to determine the likelihood or the significance of an impact prior to the conduct of an EIA (this determination is one of the aims of conducting an EIA). Secondly, even highly *unlikely* impacts should be of great concern and should therefore be the object of an EIA, if they would be catastrophic and irreversible in nature. Therefore, the ICJ in *Pulp Mills* recognised the requirement of an EIA as applicable whenever '*there is a risk*' of a significant adverse impact, notwithstanding the *likelihood* of this risk.[216] The ILC should reflect the phrasing used by the ICJ rather than the wording of the *Rio Declaration*.

On the other hand, international courts and tribunals so far have only approached EIAs in relation to impacts affecting specific areas, whether these areas are within a state's territory[217] or beyond.[218] In this context, DG 4's progressive contribution, highlighted in its Commentary, lies in its recognition of 'a similar requirement for projects that are likely to have significant adverse effects on the global atmosphere'.[219] The Commentary suggests that this requirement should apply, for instance, to 'those activities involving intentional large-scale modification of the atmosphere', a reference to geoengineering activities.[220]

However, neither DG 4 nor its Commentary provide a clear explanation of the legal basis for this extension of the EIA requirement to a global context. The Commentary suggests that the requirement applies 'a fortiori' to activities that could cause atmospheric degradation on the ground that such activities 'may carry a more extensive risk of severe damage'.[221] However, the validity of this argument rests on the assumption that an EIA is as relevant and effective a tool in addressing global environmental harm as it is in relation to transboundary environmental harm,[222] a question that the ILC left unaddressed. Instead, the Commentary relies on the *Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context* ('*Kiev Protocol*') as an authority which, in the ILC's view, 'encourages' the assessment of projects

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214 *Pulp Mills* (n 119) 82–3 [204]. See also *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica) (Merits)* [2015] ICJ Rep 665, 706–7 [104] ('*Certain Activities*'); *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion)* (International Tribunal for the Law of the Sea, Case No 17, 1 February 2011) [147] ('*Activities in the Area*').

215 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 177 [78] (Draft Guideline 4) (emphasis added). See also *Convention on Environmental Impact Assessment in a Transboundary Context*, opened for signature 25 February 1991, 1989 UNTS 309 (entered into force 10 September 1997) art 2(2) ('*Espoo Convention*').

216 *Pulp Mills* (n 119) 83 [204] (emphasis added). See also *Certain Activities* (n 214) 706–7 [104]; *Activities in the Area* (n 214) [147].

217 See *Pulp Mills* (n 119) 82–3 [204]. See also *Certain Activities* (n 214) 706–7 [104].

218 See *Activities in the Area* (n 214) [148].

219 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 178 [78] (Draft Guideline 4 Commentary [6]).

220 Ibid.

221 Ibid 178–9 [78] (Draft Guideline 4 Commentary [6]).

222 Some elements of an EIA procedure, such as notification and consultations, cannot directly be transposed from a transboundary to a global context.

likely to cause global atmospheric degradation.[223] Poorly ratified, the *Kiev Protocol* could only provide limited evidence of a norm of customary international law.[224] It relates to strategic environmental assessment, a procedure which, unlike EIA, is not generally considered as a requirement under customary international law.[225] Overall, it is not all that clear that the *Kiev Protocol* requires any assessment of global environmental impacts, if only because its very title refers to a 'transboundary context'.[226] On the other hand, the Commentary conveniently omits to mention that the *Convention on Environmental Impact Assessment in a Transboundary Context* ('*Espoo Convention*'), the only treaty that defines a general and detailed requirement for the conduct of an EIA,[227] explicitly excludes its applicability to impacts 'exclusively of a global nature'.[228]

While the ILC's reasoning is unconvincing, its conclusions may nevertheless be right, and even understated. Most states have treaty obligations to conduct an EIA for some geoengineering activities likely to have far-reaching impacts on planetary systems, as such activities would result in pollution of the marine environment,[229] threats to biological diversity,[230] or even possibly impacts on the Antarctic environment.[231] A recent survey of state practice and opinio juris suggested the existence of at least an emerging customary norm requiring the conduct of an EIA as a tool for the mitigation of climate change.[232] This obligation is certainly not limited to geoengineering activities: in many countries, EIAs are conducted when a project is likely to result in substantial amounts of GHG emissions.[233]

Likewise, DG 4 and its Commentary provided few details as to the scope and content of the EIA. The Commentary only noted that '[n]otification and consultations are key' to EIA,[234] while 'transparency and public participation are

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223 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 179 [78] (Draft Guideline 4 Commentary [6]); *Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context*, opened for signature 21 May 2003, 2685 UNTS 140 (entered into force 11 July 2010) ('*Kiev Protocol*').

224 *Kiev Protocol* (n 223). As of June 2019, the *Kiev Protocol* had been ratified by 33 states, none of which is among the largest contributors to atmospheric degradation.

225 While environmental impact assessment ('EIA') applies to projects, strategic environmental assessment relates to policies, plans and programmes: see generally Neil Craik, *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (Cambridge University Press, 2008) 155–9.

226 See generally Benoit Mayer, 'Environmental Assessments in the Context of Climate Change: The Role of the UN Economic Commission for Europe' (2019) 28(1) *Review of European, Comparative and International Environmental Law* 82, 88–90.

227 See Craik (n 225) 101.

228 *Espoo Convention* (n 215) art 1(viii).

229 *UNCLOS* (n 16) art 206.

230 *CBD* (n 15) art 14.

231 *Protocol on Environmental Protection to the Antarctic Treaty*, opened for signature 4 October 1991, 2941 UNTS 3 (entered into force 14 January 1998) annex A ('*Madrid Protocol*').

232 See Benoit Mayer, 'Climate Assessment as an Emerging Obligation under Customary International Law' (2019) 68(2) *International and Comparative Law Quarterly* 271.

233 Ibid. See, eg, *Directive 2014/52/EU of the European Parliament and of the Council* [2014] OJ L124/1, annex IV [4]; *Impact Assessment Act*, SCC 2019 s 22(1)(i); *Center for Biological Diversity v National Highway Traffic Safety Administration*, 538 F 3d 1172 (9th Cir, 2008); *Gray v Minister for Planning* (2006) LGERA 258.

234 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 178 [78] (Draft Guideline 4 Commentary [2]).

important'.[235] This does not entirely reflect the decisions of international courts and tribunals. While the ICJ in *Pulp Mills* recognised that customary international law does not 'specify the scope and content' of the EIA, it immediately noted that an EIA must, by nature, 'be conducted prior to the implementation of a project' and that, where necessary, 'continuous monitoring of [the] effects [of the project] on the environment shall be undertaken'.[236] Moreover, the ICJ in *Certain Activities Carried out by Nicaragua in the Border Area* ('*Certain Activities (Merits)*') presented notification and consultations not just as 'key', but more precisely as legal requirements 'where that is necessary to determine the appropriate measures to prevent or mitigate that risk'.[237] These requirements may not apply in the same way in relation to global environmental harm, where no specific state can be consulted. Treaty practice relating to EIA conducted in relation to impacts that could affect areas beyond national jurisdiction suggests that notification could take place in a multilateral setting[238] and could be channelled by international institutions.[239] The arbitral tribunal in the *South China Sea Arbitration* insisted that the EIA report should, at the very least, be communicated to other states.[240]

4 *Sustainable, Equitable and Reasonable Utilisation*

DG 5 presents the atmosphere as 'a natural resource with a limited assimilation capacity'[241] and calls for its '[s]ustainable utilization', highlighting 'the need to reconcile economic development with protection of the atmosphere'.[242] The concept of 'sustainable utilization' is borrowed from the *Convention on the Law of the Non-Navigational Uses of International Watercourses*[243] — a treaty based on a previous ILC project[244] — and from the concept of 'sustainable yield' of fisheries.[245] However, the concept appears far less relevant in relation to the protection of the atmosphere than it is in relation to non-navigational uses of international watercourses. There is no obvious analytical value added by framing atmospheric pollution and degradation as 'utilization' of the atmosphere rather than merely as harm (or pollution and degradation). To the contrary, reference to an 'assimilation capacity' implies that the atmosphere can be legitimately utilised within some sort of safe carrying capacity, whereas climate scientists are adamant that any amount of atmospheric pollution or degradation causes adverse effects for

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235 Ibid 179 [78] (Draft Guideline 4 Commentary [7]).
236 *Pulp Mills* (n 119) 83–4 [205].
237 *Certain Activities* (n 214) 707 [104].
238 *Madrid Protocol* (n 231) annex I arts 3(3)–(4).
239 See ibid annex I art 3(3); *UNCLOS* (n 16) art 205.
240 *South China Sea* (n 119) [991].
241 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 159 [77] (Draft Guideline 5(1)).
242 Ibid 159 [77] (Draft Guideline 5(2)).
243 *Watercourses Convention* (n 37) Preamble para 5, art 5(1).
244 See International Law Commission, *Report of the International Law Commission on the Work of Its Forty-Sixth Session*, UN GAOR, 49th sess, Supp No 10, UN Doc A/49/10 (1994) 195–256 [210]–[222], which reproduces the '[d]raft articles on the law of the non-navigational uses of international watercourses'.
245 *Third Report*, UN Doc A/CN.4/692 (n 59) 33–4 [63].

societies and ecosystems.[246] The concept of 'sustainable utilization' serves seemingly no purpose other than to highlight the need to reconcile economic development with protection of the atmosphere without a direct reference to 'sustainable development', a concept that the 'Understanding' excluded from the scope of the project.[247]

DG 6 recommends that the atmosphere 'should be utilized in an equitable and reasonable manner, taking into account the interests of present and future generations'.[248] Even more than DG 5, it is, as the Commentary acknowledges, 'formulated at a broad level of abstraction'.[249] The 'Understanding' precluded more thorough consideration by excluding the CBDRRC principle from the scope of the project.

B *The Obligation to Cooperate*

To be effective, a state's efforts to protect the atmosphere must often be coordinated with those of other states. Consistently, DG 8 identifies the other key component of the law on the protection of the atmosphere: the obligation of states 'to cooperate, as appropriate, with each other and with relevant international organizations for the protection of the atmosphere from atmospheric pollution and atmospheric degradation'.[250] In support, the Commentary cites a case,[251] declarations[252] and treaties relating to particular aspects of the protection of the atmosphere[253] or other shared natural resources.[254]

This obligation was generally the object of a broad consensus among ILC members, including those least enthusiastic about the project. Early on in the process, Sean Murphy suggested that the Special Rapporteur could highlight that 'States were cooperating in important ways to address issues relating to atmospheric degradation … and encourag[e] them to pursue such cooperation'.[255] Likewise, Ernest Petrič recognised that '[t]he obligation to cooperate was well established in international law *de lege lata*'.[256] States also supported the reference

246 See, eg, Reto Knutti et al, 'A Scientific Critique of the Two-Degree Climate Change Target' (2016) 9(1) *Nature Geoscience* 13, 14.

247 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 180 [78] (Draft Guideline 5 Commentary [5]), citing *Gabčíkovo-Nagymaros Project (Hungary v Slovakia) (Judgment)* [1997] ICJ Rep 7, 78 [140].

248 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 159 [77] (Draft Guideline 6).

249 Ibid 181 [78] (Draft Guideline 6 Commentary [1]).

250 Ibid 184 [78] (Draft Guideline 8(1)).

251 Ibid 184 [78] n 920 (Draft Guideline 8 Commentary [3]), citing *Pulp Mills* (n 119) 49 [77].

252 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 184–5 [78] n 921 (Draft Guideline 8 Commentary [4]), citing *Stockholm Declaration* (n 187); *Rio Declaration* (n 187).

253 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 184–5 [78] (Draft Guideline 8 Commentary [4]), citing *Vienna Convention for the Protection of the Ozone Layer* (n 198); *UNFCCC* (n 5).

254 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 185 [78] (Draft Guideline 8 Commentary [5]), citing *Watercourses Convention* (n 37).

255 *ILC Provisional Summary Record 3246th Session*, UN Doc A/CN.4/SR.3246 (n 97) 7 (Murphy).

256 *ILC Provisional Summary Record 3247th Session*, UN Doc A/CN.4/SR.3247 (n 76) 11 (Petrič).

to this obligation, which Spain described as 'obvious'.[257] At the Sixth Committee of the UN General Assembly in its 70th session, at least 20 states expressed support for the inclusion of the principle of cooperation in the DGs (although they had various views about its content),[258] while only one, the United States, opposed it.[259]

This relatively broad agreement could only be reached because the obligation was phrased in vague and undemanding language. As noted in the Commentary, '"as appropriate" denotes a certain flexibility for States in carrying out the obligation to cooperate depending on the nature and subject matter required for cooperation'.[260] This lukewarm phrasing contrasts with the far more pressing language found in relevant authorities. The *UNFCCC*, for instance, calls for 'the widest possible cooperation by all countries and their participation in an effective and appropriate international response'.[261] A provision of *UNCLOS* on pollution from and through the atmosphere requires that states 'endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution', in particular by 'acting … through competent international organisations or diplomatic conference'.[262] The *International Covenant on Economic, Social and Cultural Rights* calls for each state party to cooperate 'to the maximum of its available resources' towards the full realisation of the rights it recognises.[263] Soft law documents also highlighted the duty of states to cooperate in order to promote their common interests.[264] In light of these instruments, the language of DG 8 appears particularly

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257 *Summary Record of the 24th Meeting*, UN GAOR, 6th Comm, 69th sess, 24th mtg, Agenda Item 78, UN Doc A/C.6/69/SR.24 (3 December 2014) 6 [24] (Pérez de Nanclares, Spain). See also *Summary Record of the 17th Meeting*, UN GAOR, 6th Comm, 70th sess, 17th mtg, Agenda Item 83, UN Doc A/C.6/70/SR.17 (13 November 2015) 8 [47] (Pang, Singapore), 15 [103] (Galea, Romania) ('*Summary Record 17th Meeting*').

258 Denmark, Finland, Iceland, Italy, Nicaragua, Norway, Romania, Singapore, Slovenia and Sweden: *Summary Record 17th Meeting*, UN Doc A/C.6/70/SR.17 (n 257). El Salvador, Iran, Israel, Japan, Micronesia, Poland, South Africa, South Korea, Sri Lanka, Sudan and Vietnam: *Summary Record of the 18th Meeting*, UN GAOR, 6th Comm, 7th sess, 18th mtg, Agenda Item 83, UN Doc A/C.6/70/SR.18 (18 November 2015). Algeria, Malaysia and Russia: *Summary Record 19th Meeting*, UN Doc A/C.6/70/SR.19 (n 74). See *ILC Report 68th Session*, UN Doc A/CN.4/689 (n 62) 5 [12].

259 *Summary Record 19th Meeting*, UN Doc A/C.6/70/SR.19 (n 74) 5 [19].

260 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 184 [78] (Draft Guideline 8 Commentary [2]).

261 *UNFCCC* (n 5) Preamble para 6. See also United Nations Framework Convention on Climate Change, *Decision 1/CP.1: The Berlin Mandate: Review of the Adequacy of Article 4, Paragraph 2(a) and (b), of the Convention, Including Proposals Related to a Protocol and Decisions on Follow-Up*, UN Doc FCCC/CP/1995/7/Add.1 (6 June 1995, adopted 7 April 1995) art 1(e); United Nations Framework Convention on Climate Change, *Decision 1/CP.17: Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action*, UN Doc FCCC/CP/2011/9/Add.1 (15 March 2012, adopted 11 December 2011) Preamble para 1; United Nations Framework Convention on Climate Change, *Decision 2/CP.18: Advancing the Durban Platform*, UN Doc FCCC/CP/2012/8/Add.1 (28 February 2013, adopted 8 December 2012) Preamble para 2.

262 *UNCLOS* (n 16) art 212(3).

263 *ICESCR* (n 132) art 2(1).

264 See, eg, *Declaration on Principles of International Law Concerning Friendly Relations and Co-Operation among States in Accordance with the Charter of the United Nations*, GA Res 2625(XXV), 25th sess, 1883rd plen mtg, Agenda Item 85, UN Doc A/RES/2625(XXV) (1 January 1971, adopted 24 October 1970).

undemanding. It certainly does not reflect the urgency of cooperation against climate change, which states have repeatedly emphasised.[265]

The second paragraph of DG 8 recommends more specifically that states cooperate in 'enhancing scientific knowledge' relating to the protection of the atmosphere, for instance through 'exchange of information and joint monitoring'.[266] This aspect of cooperation also finds strong support in relevant treaties[267] and state practice.[268] Yet, its characterisation as a mere recommendation ('should') is regressive:[269] every single relevant treaty provision mentioned in the Commentary frames cooperation in enhancing scientific knowledge as an obligation ('shall').[270] 'Should' provisions in this respect typically relate to support for capacity-building in the scientific sector,[271] not to efforts towards enhancing and sharing scientific knowledge.

Besides measures to enhance scientific knowledge, DG 8 gives no further indication as to the content of the obligation of states to cooperate. This is regrettable given the importance of the question at a time when some states are reluctant to participate in multilateral negotiations,[272] or, if they participate, are reluctant to commit to sufficient efforts.[273] During the second reading, the ILC should consider implications of the obligation of states to cooperate. In particular, a relevant area of inquiry would question the right of a state not to participate in, or to withdraw from, quasi-universal treaty regimes aimed at addressing major sources of atmospheric degradation. Although treaty participation is based on state consent,[274] there is a strong argument that a state must not — or at the very least, *should* not — free-ride on the efforts made by others to address a common concern.[275]

Likewise, the exclusion of the CBDRRC principle from the scope of the project should not prevent the ILC from discussing benchmarks which could help to assess a state's compliance with its obligation to cooperate. For instance, the obligation to negotiate in good faith and the concept of estoppel suggest that a state could be

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265 See, eg, United Nations Framework Convention on Climate Change, *Decision 1/CP.21: Adoption of the Paris Agreement*, UN Doc FCCC/CP/2015/10/Add.1 (29 January 2016, adopted 13 December 2015) Preamble paras 5–6.

266 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 160 [77] (Draft Guideline 8(2)).

267 See, eg, *UNFCCC* (n 5) arts 4(1)(g)–(h), 6; *UNCLOS* (n 16) arts 200–201, 204; *ICESCR* (n 132) art 2(1).

268 The Intergovernmental Panel on Climate Change is a prime example of international cooperation on enhancing and circulating knowledge about climate change.

269 See *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 6 (Hassouna), 11 (Petrič).

270 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 186 [78] (Draft Guideline 8 Commentary [8]–[11]), citing *Vienna Convention for the Protection of the Ozone Layer* (n 198) art 4(1); *UNFCCC* (n 5) art 4(1); *Watercourses Convention* (n 37) art 9; *Convention on Long-Range Transboundary Air Pollution* (n 144) arts 4, 7–9. See also *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 185 [78] (Draft Guideline 8 Commentary [5]), quoting *Watercourses Convention* (n 37) art 8(1).

271 See, eg, *Rio Declaration* (n 187) (Principle 9); *Paris Agreement* (n 5) art 11(1).

272 The United States is the most obvious example: see *United States Communication* (n 11).

273 See, eg, United Nations Environment Programme, *Emissions Gap Report* (n 8) xiv.

274 Jutta Brunnée, 'Consent' Rüdiger Wolfrum (ed), in *Max Planck Encyclopedia of Public International Law* (Oxford University Press, online at October 2010) [5].

275 See Evan J Criddle and Evan Fox-Decent, 'Mandatory Multilateralism' (2019) 113(2) *American Journal of International Law* 272; Eric A Posner and David Weisbach, *Climate Change Justice* (Princeton University Press, 2010) 178.

held to account once it has communicated to others what constitutes, in its view, its fair and realistic contribution to global efforts, even if that state was then to withdraw from relevant treaties.[276] Another potential touchstone is the concept of non-discrimination, which requires a state to give no less attention to environmental impacts taking place outside of its territory than to those taking place within its territory.[277] Accordingly, a state's efforts to mitigate local air pollution, for instance, could provide an indication of the level of efforts that it could be expected to invest in preventing transboundary atmospheric pollution and global atmospheric degradation.

On the other hand, the ILC should better define the limits of the obligation to cooperate. The Commentary of DG 8 refers to the Preamble to the *UNFCCC* which 'reaffirm[s] "the principle of sovereignty of States in international cooperation to address climate change"'.[278] The most likely way to reconcile the obligation to cooperate with the principle of state sovereignty is based on the understanding that, while cooperation is indispensable in addressing transboundary or global environmental problems, it must be promoted in ways that do not unnecessarily restrict states' sovereignty, for instance in determining means of implementation.

C *The Regulation of Geoengineering*

The ILC's project deals separately with '[a]ctivities aimed at intentional large-scale modification of the atmosphere',[279] more commonly referred to as geoengineering activities.[280] These include activities of different natures, which raise distinct legal questions. At the more benign end of the spectrum, negative emissions technologies ('NETs') seek to remove carbon dioxide from the atmosphere in order to mitigate climate change. NETs include afforestation as well as techniques to capture carbon dioxide and store it underground.[281] At the other

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276 See, eg, *Future Generations v Ministry of the Environment* (n 22). See generally *Indigenous Environmental Network v US Department of State*, 347 F Supp 3d 561 (D Mont 2018). See generally Mayer, 'Methodological Review' (n 20) 115–17; Benoit Mayer, 'International Law Obligations Arising in relation to Nationally Determined Contributions' (2018) 7(2) *Transnational Environmental Law* 251, 265.

277 See, eg, *Convention on Third Party Liability in the Field of Nuclear Energy*, opened for signature 29 July 1960, 956 UNTS 251 (entered into force 1 April 1968) art 14; *Watercourses Convention* (n 37) art 32; OECD, *Recommendation of the Council on Principles concerning Transfrontier Pollution* (OECD Legal No 0133, 14 November 1974) annex para 5; *Convention on the Protection of the Environment*, opened for signature 19 February 1974, 1092 UNTS 279 (entered into force 5 October 1976) art 3; International Law Commission, *Report of the International Law Commission on the Work of Its Fifty-Third Session*, UN GAOR, 56th sess, Supp No 10, UN Doc A/56/10 (2001) ch V(E)(1) ('*Text of the Draft Articles on Prevention of Transboundary Harm from Hazardous Activities*'). See especially at art 15. See generally Alan Boyle, 'Human Rights and the Environment: Where Next?' (2012) 23(3) *European Journal of International Law* 613, 635; Eyal Benvenisti, 'Sovereigns as Trustees of Humanity: On the Accountability of States to Foreign Stakeholders' (2013) 107(2) *American Journal of International Law* 295, 310; Mayer, 'Methodological Review' (n 20) 117–18.

278 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 185 [78] (Draft Guideline 8 Commentary [4]), quoting *UNFCCC* (n 5) Preamble para 9.

279 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 160 [77] (Draft Guideline 7).

280 See ibid 181–2 [78] (Draft Guideline 7 Commentary [2]–[3]).

281 See generally Sabine Fuss et al, 'Commentary: Betting on Negative Emissions' (2014) 4(10) *Nature Climate Change* 850.

end of the spectrum lie far more dangerous techniques that seek to 'manage' the Earth's intake of solar radiation, for instance through the injection of particles in the stratosphere or by placing large shades in space in order to limit global warming. Solar radiation management ('SRM') could regulate the Earth's *average* temperature, but it would likely cause catastrophic global side-effects, for instance, by upsetting regional and seasonal climate systems.[282]

DG 7 deals with these various activities in only one sentence, recommending that they 'should be conducted with prudence and caution, subject to any applicable rules of international law'.[283] The vague concept of 'prudence and caution' is borrowed from three orders on provisional measures of the International Tribunal for the Law of the Sea,[284] each time in response to submissions based on a precautionary principle.[285] The application of this concept to international large-scale modification of the atmosphere appears to have been yet another attempt of the Special Rapporteur to go around the terms of the 'Understanding', which exclude discussions of the 'precautionary principle'. If so, however, it is unclear why the DGs recommend 'prudence and caution' only in relation to intentional large-scale modification of the atmosphere, rather than in relation to any activity that has the potential to impact the atmosphere.

Further analysis in the Commentary of DG 7 is hindered by the great diversity of the activities that it seeks to address. In particular, the Commentary suggests that these activities have 'a significant potential for preventing, diverting, moderating or ameliorating' the impacts of atmospheric degradation,[286] but there is no scientific consensus that SRM has such potential or that the potential of NETs is 'significant', given land-use and freshwater constraints.[287] Likewise, the Commentary suggests that these techniques 'may have long-range and unexpected effects on existing climatic patterns that are not confined by national boundaries',[288] which is far more likely concerning SRM than concerning afforestation. Putting all these activities in the same basket and suggesting that they require similar levels of 'prudence and caution' contributes to delegitimising

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282 See, eg, Naomi E Vaughan and Timothy M Lenton, 'A Review of Climate Geoengineering Proposals' (2011) 109(3–4) *Climatic Change* 745. See also *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 182 [78] (Draft Guideline 7 Commentary [4]).

283 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 160 [77] (Draft Guideline 7).

284 See *Southern Bluefin Tuna (New Zealand v Japan; Australia v Japan) (Provisional Measures)* [1999] ITLOS Rep 280, 296 [77] ('*Southern Bluefin Tuna*'); *MOX Plant (Ireland v United Kingdom) (Provisional Measures)* [2001] ITLOS Rep 95, 110 [84] ('*MOX Plant*'); *Land Reclamation by Singapore in and around the Straits of Johor (Malaysia v Singapore) (Provisional Measures*) [2003] ITLOS Rep 10, 26 [99] ('*Land Reclamation*').

285 See *Southern Bluefin Tuna* (n 284) 286 [28]; *MOX Plant* (n 284) 108 [71]; *Land Reclamation* (n 284) 23 [74].

286 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 182 [78] (Draft Guideline 7 Commentary [7]).

287 See, eg, David P Keller, Ellias Y Feng and Andreas Oschlies, 'Potential Climate Engineering Effectiveness and Side Effects during a High Carbon Dioxide-Emission Scenario' (2014) 5 *Nature Communications* 3304:1–11.

288 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 182 [78] (Draft Guideline 7 Commentary [7]).

well-accepted efforts to promote afforestation[289] while also seemingly legitimising more drastic activities.[290]

Beyond this evasive call for 'prudence and caution', the ILC could conduct a more systematic analysis of the obligations of states applicable to such activities, including their obligation to protect the atmosphere and to cooperate for the protection of the atmosphere.[291] One hypothesis worth considering is that the unilateral implementation of SRM activities may be entirely prohibited under general international law, given the consequences it would inevitably have on other states. While the Commentary recognises the existence of related 'activities that are prohibited by international law',[292] it only mentions '[m]ilitary activities' banned under the *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques* and the *Additional Protocol I* to the *Geneva Conventions*.[293] It thus ignores a number of more recent developments which suggest a prohibition of certain activities aimed at intentional large-scale modification of the atmosphere. For instance, the parties to the *CBD* decided to place a moratorium on 'climate-related geo-engineering activities that may affect biodiversity … until there is an adequate scientific basis on which to justify such activities'.[294] States have also endorsed the prohibition[295] of techniques aimed at 'fertilization' of the oceans in order to exploit their capacity to remove carbon dioxide from the atmosphere, or otherwise called for 'utmost caution',[296] due to concerns for impacts of such techniques on the marine environment. On the other hand, the Commentary also ignores developments through which states have endorsed particular techniques, for instance the decision of the parties to the *Kyoto*

289 See, eg, *Kyoto Protocol* (n 7) arts 2(1)(a)(ii), 3(3); *Paris Agreement* (n 5) art 5(2).

290 International Law Commission, *Provisional Summary Record of the 3315th Meeting*, 68th sess, 2nd pt, 3315th mtg, UN Doc A/CN.4/SR.3315 (10 August 2016) 13 (Forteau).

291 The Commentary only notes the applicability of the obligation to conduct an EIA: see *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 178–9 [78] (Draft Guideline 4 Commentary [6]).

292 Ibid 182 [78] (Draft Guideline 7 Commentary [5]).

293 Ibid, citing *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques*, opened for signature 10 December 1976, 1108 UNTS 151 (entered into force 5 October 1978) art 1; *Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I)*, opened for signature 8 June 1977, 1125 UNTS 3 (entered into force 7 December 1978) arts 35(3), 55.

294 Conference of the Parties to the Convention on Biological Diversity, *Biodiversity and Climate Change*, 10th mtg, Agenda Item 5.6, UN Doc UNEP/CBD/COP/DEC/X/33 (29 October 2010) para 8(w) (citations omitted). See generally Benoit Mayer, *The International Law on Climate Change* (Cambridge University Press, 2018) 155–9.

295 International Maritime Organization, *Report of the Thirty-Fifth Consultative Meeting and the Eighth Meeting of Contracting Parties*, Agenda Item 15, IMO Doc LC 35/15 (21 October 2013) annex 4, which states Resolution LP.4(8), adopted by the parties to the *London Protocol of 1996 to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972*, regarding the adoption of an amendment to regulate the placement of matter for ocean fertilisation and other marine geoengineering activities.

296 *The Future We Want*, GA Res 66/288, UN GAOR, 66th sess, Agenda Item 19, UN Doc A/RES/66/288 (11 September 2012, adopted 27 July 2012) 32 [167].

Protocol to recognise mitigation outcomes from carbon capture and storage projects.[297]

D *Consequences of Non-Compliance*

The DGs discuss non-specific issues of implementation, compliance and dispute settlement, but ignore the unique questions that the protection of the atmosphere raises in relation to the law of state responsibility and in particular, the right of a state to claim the performance of an obligation.

1 *Non-Specific Observations on Implementation, Compliance and Dispute Settlement*

Three DGs address questions of implementation,[298] compliance[299] and dispute settlement.[300] As these three themes are not specific to the protection of the environment, it is perhaps unsurprising that these DGs do little more than restating the obvious. Thus, DG 10 acknowledges that national implementation of international law obligations 'may take the form of legislative, administrative, judicial and other actions'.[301] Likewise, DG 11 notes that 'States are required to abide with their obligations … in good faith'[302] and recognises that '[t]o achieve compliance, facilitative or enforcement procedures may be used … in accordance with the relevant agreements'.[303] Lastly, DG 12 observes that disputes 'are to be settled by peaceful means',[304] highlighting the need to give 'due consideration … to the use of technical and scientific experts' when such disputes are 'fact-intensive and science-dependent'.[305]

It is unclear how the ILC could usefully contribute to the codification or the progressive development of international law regarding these three themes in a project on the protection of the atmosphere. Institutions and processes to promote compliance are treaty-specific: they do not constitute norms of general international law. On the other hand, the topic of the protection of the atmosphere does not seem to raise any clearly distinct legal issue related to implementation or dispute settlement.

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297 Framework Convention on Climate Change, *Carbon Dioxide Capture and Storage in Geological Formations as Clean Development Mechanism Project Activities*, UN Doc FCCC/KP/CMP/2010/12/Add.2 (15 March 2011, adopted 10 December 2011) para 1; Framework Convention on Climate Change, *Modalities and Procedures for Carbon Dioxide Capture and Storage in Geological Formations as Clean Development Mechanism Project Activities*, UN Doc FCCC/KP/CMP/2011/10/Add.2 (15 March 2012, adopted 11 December 2011) para 1. See generally Meinhard Doelle and Emily Lukaweski, 'Carbon Capture and Storage in the CDM: Finding Its Place Among Climate Mitigation Options?' (2012) 3(1) C*limate Law* 49.

298 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 160 [77] (Draft Guideline 10).

299 Ibid 160–1 [77] (Draft Guideline 11).

300 Ibid 161 [77] (Draft Guideline 12).

301 Ibid 160 [77] (Draft Guideline 10(1)).

302 Ibid (Draft Guideline 11(1)).

303 Ibid 160–1 [77] (Draft Guideline 11(2)). This DG suggests a dichotomy between 'facilitative' procedures and 'enforcement' procedures, but treaty practice is arguably more complex. See, eg, Alexander Zahar, 'A Bottom-Up Compliance Mechanism for the Paris Agreement' (2017) 1(1) *Chinese Journal of Environmental Law* 69.

304 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 161 [77] (Draft Guideline 12(1)).

305 Ibid 161 [77] (Draft Guideline 12(2)).

2 *Unique Aspects of the Law of State Responsibility*

By contrast, the DGs include no mention of the responsibility of states for internationally wrongful acts. Unlike other omissions, this is not due to the 'Understanding',[306] but rather to priorities decided by the Special Rapporteur. Murase had identified responsibility as 'critical' in the original syllabus of the topic[307] and some states had expressed interest in the question.[308] Yet, whereas Murase's Fifth Report devotes 12 paragraphs to compliance and 60 to dispute settlement, it only had three paragraphs on state responsibility.[309] This report suggested that the priority should be 'to establish a cooperative framework for atmospheric protection, instead of seeking to mould "shame and blame" matrices under a regime of State responsibility in international law'.[310] A mention of state responsibility in a DG on implementation which Murase had introduced in his Fifth Report was removed during the deliberations of the ILC.[311]

Murase's Fifth Report notes that 'it is difficult, if not impossible, to identify, in the context of global atmospheric degradation, such as climate change, which States are responsible for the causes of the alleged damage'.[312] This remark does not apply to atmospheric pollution, where responsibility is more straightforward.[313] In relation to global environmental impacts, it would have been desirable for the ILC to take stock at least of those rules which it has identified in its prior work on state responsibility, in particular in relation to the plurality of responsible states,[314] the plurality of injured states[315] and the invocation of responsibility by a state other than an injured state.[316] The ILC could further have discussed how the unique difficulties of implementing the law of state responsibility in relation to situations as complex as climate change could be approached.[317] This could have been an opportunity for the ILC to address

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306 The 'Understanding' excluded state liability and the CBDRRC principle, but not state responsibility. See *ILC Report 65th Session*, UN Doc A/68/10 (n 27) 115 [168].

307 *Protection of the Atmosphere*, UN Doc A/66/10 (n 44) 322 [24].

308 See, eg, *Summary Record of the 20th Meeting*, UN GAOR, 6th Comm, 69th sess, UN Doc A/C.6/69/SR.20 (10 November 2014) 3 [7] (Tupouniua, Tonga); *Summary Record 22nd Meeting*, UN Doc A/C.6/69/SR.22 (n 163) 5 [20] (Tichy, Austria), noting the need to 'identify the rights and obligations of States'.

309 *Fifth Report*, UN Doc A/CN.4/711 (n 68) 9–10 [16]–[18].

310 Ibid 10 [18].

311 See *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 195 [78] (Draft Guideline 10 Commentary [7]). See also *Fifth Report*, UN Doc A/CN.4/711 (n 68) 16 [31], noting that proposed Draft Guideline 10(2) confuses issues of responsibility and questions of evidence.

312 *Fifth Report*, UN Doc A/CN.4/711 (n 68) 10 [17].

313 In relation to another type of transboundary environmental harm: see *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua) (Compensation)* (International Court of Justice, General List No 150, 2 February 2018).

314 *DARSIWA*, UN Doc A/56/10 (n 34) art 47.

315 Ibid art 46.

316 Ibid art 48.

317 See, eg, Roda Verheyen, *Climate Change Damage and International Law: Prevention Duties and State Responsibility* (Martinus Nijhoff, 2005); Christina Voigt, 'State Responsibility for Climate Change Damages' (2008) 77(1–2) *Nordic Journal of International Law* 1. See generally Benoit Mayer, 'State Responsibility and Climate Change Governance: A Light through the Storm' (2014) 13(3) *Chinese Journal of International Law* 539; Florentina Simlinger and Benoit Mayer, 'Legal Responses to Climate Change Induced Loss and Damage' in Reinhard Mechler et al (eds), *Loss and Damage from Climate Change: Concepts, Methods and Policy Options* (Springer, 2019) 179, 190–2.

inconsistencies in its treatment of the obligation to prevent environmental harm both as a primary obligation whose breach leads to an obligation to make reparation under the law of state responsibility, and as a question of liability for injurious consequences arising out of acts not prohibited by international law.[318]

Murase's Fifth Report further states that, in relation to a breach of the due diligence obligation of states to protect the atmosphere, '[t]he question of responsibility could not arise in the absence of proven damage or risk'.[319] The only authority cited in support of this proposition is a description of an argument submitted by France in the 1995 *Nuclear Tests* case.[320] This proposition finds no support under the law of state responsibility: the existence of an injury is not generally considered as a condition for a state's responsibility.[321] One could think that the occurrence of a 'harm' is essential to constitute the breach of the principle of prevention (sometimes referred to as the 'no-harm principle'), but this reasoning is inconsistent with the ILC's own characterisation of the obligation to protect the atmosphere as an obligation of conduct (due diligence obligation) rather than an obligation of result.[322] A state would breach its obligation of conduct by failing to take requisite action even if, by luck or due to intervening factors (eg voluntary action by non-state actors),[323] no harm unfolds. This analysis is supported by the ICJ in *Certain Activities (Merits)*, which found Costa Rica in breach of its obligation to conduct an EIA, presented as an element of its due diligence obligation, even though the project had not resulted in any significant transboundary environmental impact.[324] Thus, questions of responsibility could

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318 For instance, the International Law Commission has construed the case of *Trail Smelter* (n 119) as both a matter of state responsibility and state liability. See International Law Commission, *Report of the International Law Commission on the Work of Its Fifty-Third Session*, UN GAOR, 56th sess, Supp No 10, UN Doc A/56/10 (2001) ch IV(E)(2) ('*Draft Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries*') art 14 (Commentary [14]), art 30 (Commentary [13]), art 31 (Commentary [10]), art 36 (Commentary [15]); *ILC Report 58th Session*, UN Doc A/61/10 (n 41) 122 (Draft Principle 2 Commentary [1]), 141 (Draft Principle 3 Commentary [3]), 152–4 (Draft Principle 4 Commentary [6]–[7]).

319 *Fifth Report*, UN Doc A/CN.4/711 (n 68) 10 [16].

320 See ibid 10 n 46, citing Phoebe Okowa, 'Responsibility for Environmental Damage' in Malgosia Fitzmaurice, David M Ong and Panos Merkouris (eds), *Research Handbook on International Environmental Law* (Edward Elgar, 2010) 303, 312: Phoebe Okowa describes France's argument without expressing support for it. See generally *ILC Provisional Summary Record 3410th Meeting*, UN Doc A/CN.4/SR.3410 (n 101) 6 (Aurescu).

321 *DARSIWA*, UN Doc A/56/10 (n 34) art 1. By contrast, the existence of an injury is a condition for the obligation to make reparation: at art 31).

322 See above n 205 and accompanying text.

323 The situation of the United States under the Trump administration with regard to the *Paris Agreement* may be a case in point. While the Federal government has rolled back all efforts to comply with its obligations under its NDC (even before its withdrawal from the treaty is effective), non-state actors and subnational authorities decided to make their best efforts to ensure compliance: see Fatima Maria Ahmad, Jennifer Huang and Bob Perciasepe, 'The Paris Agreement Presents a Flexible Approach for US Climate Policy' (2017) 11(4) *Carbon and Climate Law Review* 283. As the voluntary contribution of non-state actors is extraneous to the state, it does not bring the state to compliance with its obligation of conduct. The contribution of state and local governments, which is not endorsed by the Federal government, should likewise be considered as extraneous or, in any case, unable to constitute a requisite level of effort.

324 *Certain Activities* (n 214) 723 [161]–[162], 737 [217]. See also *Difference Relating to Immunity from Legal Process of a Special Rapporteur of the Commission on Human Rights (Advisory Opinion)* [1999] ICJ Rep 62, 86 [58], relating to a different obligation of conduct. See also Mayer, 'Obligations of Conduct' (n 205) 137–8.

arise when a state fails to take appropriate measures to protect the atmosphere, even if this does not result in any significant impact.

3 *The Right of a State to Claim the Performance of an Obligation*

A related question is about the right of states to claim the performance of an obligation. Introducing the concept of 'common concern of humankind', Murase's First Report noted that it would 'certainly lead to the creation of substantive legal obligations on the part of all States to protect the global atmosphere as enforceable *erga omnes*'.[325] Murase cited the 1970 Judgment of the ICJ in *Barcelona Traction, Light and Power Company, Limited* ('*Barcelona Traction*'),[326] which distinguishes between 'the obligations of a State towards the international community as a whole' (*erga omnes*) and those obligations that a state incurs 'vis-à-vis another State'.[327] The ICJ observed that obligations *erga omnes* could relate, for example, to the prohibition of aggression and genocide and the protection of fundamental rights.[328] The consequence of this distinction is that, while only the state concerned may invoke the performance of an obligation owed to it, any state has an interest in the performance of an obligation *erga omnes*.[329] Consistently, the ILC recognised in its draft articles on state responsibility that a state other than an injured state could invoke the responsibility of another state in relation to an *erga omnes* obligation.[330]

Against Murase's suggestion, several ILC members contended that there was no legal basis for the recognition of an obligation *erga omnes* in relation to the protection of the atmosphere, highlighting the absence of any judicial precedent.[331] This suggested (once again) an extraordinarily conservative approach to the function of the ILC as simply recording rules that had been identified by international courts and tribunals.[332] Other ILC members suggested that the protection of the atmosphere was not comparable to the cases in which obligations *erga omnes* had been identified,[333] but the distinction they hinted at is all but clear. As environmental harms hinder the enjoyment of fundamental rights (including the right to life[334]), the international community interest in protecting the latter extends arguably to the prevention of the former. A 2005 Resolution of the Institut

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325 *First Report*, UN Doc A/CN.4/667 (n 50) 57 [89]. Confusingly, the following sentence suggests that this may not create a legal interest of all states in the enforcement of the legal obligation, even though this is precisely the legal consequence of characterising an obligation as '*erga omnes*'.

326 Ibid, citing *Barcelona Traction, Light and Power Company, Limited (Belgium v Spain) (Second Phase)* [1970] ICJ Rep 3 ('*Barcelona Traction*').

327 *Barcelona Traction* (n 326) 32 [33].

328 Ibid 32 [34].

329 Ibid 32 [33].

330 *DARSIWA*, UN Doc A/56/10 (n 34) 56 [76] (Draft Article 48(1)(b)).

331 See, eg, *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 7 (Kittichaisaree), 10 (Hmoud); *ILC Provisional Summary Record 3213th Meeting*, UN Doc A/CN.4/SR.3213 (n 80) 13 (Hernández); *ILC Provisional Summary Record 3246th Meeting*, UN Doc A/CN.4/SR.3246 (n 97) 5 (Murphy), 9 (Nolte).

332 See above n 118 and accompanying text.

333 See *ILC Provisional Summary Record 3211th Meeting*, UN Doc A/CN.4/SR.3211 (n 154) 4 (Murphy), 10 (Forteau).

334 See, eg, *Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship between Climate Change and Human Rights*, 10th sess, Agenda Item 2, UN Doc A/HRC/10/61 (15 January 2009) 7 [16].

de Droit International recognised 'a wide consensus … to the effect that … obligations relating to the environment of common spaces' as examples of obligations *erga omnes*.[335] Nevertheless, the ILC's Commentary reflected a lack of agreement among ILC members as to a characterisation of states' obligations relating to the protection of the atmosphere as an obligation *erga omnes*.[336]

This aspect of the DGs fails to acknowledge the current state of international law. Since *Barcelona Traction,* the ICJ recognised as *erga omnes* the obligations contained in the *Application of the Convention on the Prevention and Punishment of the Crime of Genocide*,[337] the obligation to respect right of peoples to self-determination[338] and international humanitarian law obligations,[339] while also recognising obligations under the *Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment* as *erga omne partes* (owed to every party to the treaty).[340] Overall, the 2011 advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* interpreted provisions of *UNCLOS* on the protection and preservation of the marine environment as entailing obligations *erga omnes*.[341] As such, when the ILC initiated its project on the protection of the atmosphere, no doubt should have remained about the existence of obligations *erga omnes* in relation to environmental protection. Unfortunately, this advisory opinion was not mentioned in the ILC's deliberations until Murase's Third Report, in 2015, after an Iranian representative had brought it to the Special Rapporteur's attention.[342] By that time, the concept of obligation *erga omnes* (and that of common concern of humankind) had already been excluded from the text of the DGs.[343]

Having recognised the existence of an obligation of states to prevent global environmental harm, the ILC failed to draw the obvious conclusion: this obligation is not incurred vis-à-vis another state (the avoidance of global environmental harm does not benefit any individual state in particular), but inevitably towards the international community as a whole.[344] Prevention of global environmental harm

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335 Institut de Droit International, *Resolution: Obligations Erga Omnes in International Law* (27 August 2005) Preamble para 2.

336 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 175 [78] (Draft Guideline 3 Commentary [4]).

337 See *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v Yugoslavia) (Preliminary Objections)* [1996] ICJ Rep 595, 615 [31].

338 See *East Timor (Portugal v Australia) (Judgment)* [1995] ICJ Rep 90, 102 [29]; *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory (Advisory Opinion)* [2004] ICJ Rep 136, 199 [156] ('*Construction of a Wall*'); *Legal Consequences of the Separation of the Chagos Archipelago from Mauritius in 1965 (Advisory Opinion)* (International Court of Justice, General List No 169, 25 February 2019) 42–3 [180].

339 See *Construction of a Wall* (n 338) 199 [157].

340 *Obligation to Prosecute or Extradite (Belgium v Senegal) (Judgment)* [2012] ICJ Rep 422, 449–50 [68]–[69]; *Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*, opened for signature 10 December 1984, 1465 UNTS 85 (entered into force 26 June 1987).

341 *Activities in the Area* (n 214) 54 [180].

342 *Third Report*, UN Doc A/CN.4/692 (n 59) 6 [12] n 36.

343 See above n 57 and accompanying text.

344 See Duvic-Paoli (n 18) 321–3.

is certainly, as the ICJ in *Barcelona Traction* put it, 'the concern of all States'.[345] Likewise, prevention of atmospheric pollution affecting areas beyond national jurisdiction is an obligation *erga omnes*.[346] By contrast, the obligation of a state to prevent atmospheric pollution that would be confined to the territory of another state could be interpreted as an obligation incurred vis-à-vis the state affected, unless the environmental harm in question is such as to, for instance, significantly affect the fundamental rights of the population or the right of the state affected to self-determination, the protection of which is arguably an obligation *erga omnes*.

V CONCLUSION

The topic of the protection of the atmosphere presents important challenges for the ILC. Inasmuch as it concerns global environmental harm, it is a complex topic, largely unexplored in judicial decisions and academic research. To conduct an authoritative analysis of this topic, the ILC should seek to interpret the law as a consistent normative system, independently from any political debates and blind to any national interests. Thorough research and careful analysis are needed.

The outcomes of the project so far have been rather disappointing. The DGs adopted on first reading are at times an evasive summary of the law, for instance regarding the obligation of states 'to cooperate, as appropriate',[347] and to exercise 'prudence and caution' with regard to geoengineering.[348] At other times, ILC members displayed an extraordinary reluctance to recognise what states and courts had largely agreed upon, such as the description of atmospheric degradation as a common concern of humankind and the characterisation of the obligation to protect areas beyond national jurisdiction from environmental harm as an obligation *erga omnes*. At yet other times, the ILC threaded into the political arena by deciding to turn a blind eye to legal arguments on the ground of their expected political consequences.[349] All in all, the DGs unfortunately do not, at the moment, contribute to the 'progressive development of international law'.[350]

The topic remains nevertheless more relevant than ever. As climate cases are filed throughout the world, guidance is urgently needed as to the applicable rules of general international law. The ILC has a contribution to make, based on its expertise and its independence, in developing a rigorous and authoritative interpretation of the obligations of states under general international law in relation, in particular, to the major civilisational crisis that climate change represents. The project's second reading should be an opportunity for technical deliberations, conducted without consideration of political interests, whose focus would not be on compliance with a restrictive 'Understanding' about the scope of the project, but solely on the rigour of the analysis of the topic.

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345 *Barcelona Traction* (n 338) 32 [33]. See also *ILC Provisional Summary Record 3247th Meeting*, UN Doc A/CN.4/SR.3247 (n 76) 13 (Peter).

346 *Activities in the Area* (n 214) 54 [180].

347 *ILC Report 70th Session*, UN Doc A/73/10 (n 1) 160 [77] (Draft Guideline 8(1)).

348 Ibid 160 [77] (Draft Guideline 7).

349 See above nn 178, 179, 195 and accompanying text.

350 *Statute of the International Law Commission*, UN Doc A/RES/174(II) (n 82) art 1(1).