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Second report on the protection of the atmosphere

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Contents

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I. Introduction

1. The present report follows the first report on the same topic,[1] submitted by the Special Rapporteur in February 2014 for consideration at the sixty-sixth session of the International Law Commission, following the Commission's decision at its sixty-fifth session in 2013[2] to include the topic in its current programme of work.

2. The first report discussed the rationale for pursuing the project, as well as basic approaches to the topic,[3] followed by a brief historical analysis of the evolution of international law relating to the protection of the atmosphere.[4] The report then provided a comprehensive (but not necessarily exhaustive) account of the major sources of law, including treaty practice, jurisprudence of international courts and tribunals, customary international law, non-binding instruments, domestic legislation and domestic court cases.[5] Finally, the Special Rapporteur proposed three draft guidelines: draft guideline 1 on the definition of the atmosphere, draft guideline 2 on the scope of the guidelines, and draft guideline 3 on the legal status of the atmosphere.

3. At its sixty-sixth session, the Commission considered the first report at its 3209th to 3214th meetings, during May and June 2014.[6] Members of the Commission recognized that the protection of the atmosphere was an extremely important and urgent endeavour for humankind, raising the concern, supported by scientific data, that air pollution, ozone depletion and climate change pose a threat to the atmosphere. While a few members criticized the Special Rapporteur for liberally interpreting the terms of the Commission's 2013 "understanding", others responded with a quite different suggestion, namely, to abolish the understanding entirely and adopt an unconstrained approach to the project. The Special Rapporteur's relatively liberal interpretation of the understanding[7] seemed to fall

[1] A/CN.4/667.

[2] *Official Records of the General Assembly, Sixty-eighth Session, Supplement No. 10* (A/68/10), para. 168. The topic was included on the following understanding: (a) Work on this topic will proceed in a manner so as not to interfere with relevant political negotiations, including those on climate change, ozone depletion, and long-range transboundary air pollution. The topic will not deal with, but is also without prejudice to, questions such as the 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, including intellectual property rights. (b) The topic will also not deal with specific substances, such as black carbon, tropospheric ozone, and other dual-impact substances, which are the subject of negotiations among States. The project will not seek to "fill" the gaps in the treaty regimes. (c) Questions relating to outer space, including its delimitation, are not part of the topic. (d) The outcome of the work on the topic will be a set of draft guidelines that do not seek to impose on current treaty regimes legal rules or legal principles not already contained therein. (e) The Special Rapporteur's Reports would be based on this understanding.

[3] A/CN.4/667, paras. 10-19.

[4] Ibid., paras. 20-28.

[5] Ibid., paras. 29-63.

[6] Ibid., *Sixty-ninth Session, Supplement No .10* (A/69/10), para. 79.

[7] The Special Rapporteur indicated his interpretation of the understanding in his first report as follows: "It may be noted that the understanding relates only to 'relevant political negotiations' and 'the subjects of negotiations;' therefore such discussion is not prevented in relation to subjects that are not part of the agenda of any on-going treaty negotiations, although the Special Rapporteur did not intend, from the beginning, to interfere with political processes or to deal with specific substances. That the project will not 'deal with,' but is also 'without prejudice to'

between two disparate perspectives, one entailed seeking to limit work on the topic to a rigid, restrictive interpretation of the understanding, and the other entailed calling for its abandonment. This middle-ground approach involving a method of liberal interpretation, while remaining within the structure of the understanding, received support from a significant number of members. The Special Rapporteur has continued in the same fashion in the present second report, while acknowledging the multiple alternative viewpoints expressed at the sixty-sixth session.[8]

4. As noted above, the Special Rapporteur proposed three draft guidelines in the first report. While the majority of the members of the Commission supported sending the guidelines to the Drafting Committee, the Special Rapporteur decided not to request that the Commission do this during the sixty-sixth session. The Special Rapporteur made that decision based on his intention to review the issues raised by members and submit revised draft guidelines to the Commission at its sixty-seventh session in 2015. The new set of draft guidelines proposed by the Special Rapporteur are contained in paragraphs 17, 22, 39, 59 and 77 and the annex of this report.

5. In October and November 2014, at the sixty-ninth session of the General Assembly, the Sixth Committee considered the Commission's discussion of the topic, as reflected in chapter VIII of the Commission's report to the Assembly on the work of its sixty-sixth session (A/69/10). More than 28 States presented their views. A large number of delegations shared the Special Rapporteur's view on the importance and timeliness of this project,[9] while a few delegations questioned the

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certain questions mentioned above does not preclude the Special Rapporteur from 'referring to' them in the present study. The project is not intended to 'fill' the gaps in treaty regimes but it will certainly 'identify' such gaps. Furthermore, it should be noted that the understanding indicates no restriction on discussing any matters of customary international law related to the subject by taking treaty practice into consideration either as State practice or *opinio juris*." (A/CN.4/667, footnote 10).

[8] Ibid.

[9] Tonga (on behalf of the 12 Pacific Small Island Developing States, A/C.6/69/SR.20, para. 7), Denmark (on behalf of the Nordic countries, SR.22, para. 12), Austria (SR.22, para. 19), Federated States of Micronesia (SR.22, para. 23), Romania (SR.22, para. 44), Italy (SR.22, para. 51), Germany (SR.23, para. 39), Japan (SR.23, para. 73), Cuba (SR.23, para. 79), Israel (SR.23, para. 82), El Salvador (SR.23, para. 92), Malaysia (SR.24, para. 31), Palau (SR.24, paras. 41-43), Portugal (SR.24, para. 75), Islamic Republic of Iran (SR.24, paras. 82-83), Algeria (SR.25, para. 3), Viet Nam (SR.25, para. 16-18), India (SR.26, para. 112), Indonesia (SR.27, paras. 60-62). Enthusiastic support for the topic was expressed by Micronesia, encouraging the Commission to develop and adopt draft guidelines on the protection of the atmosphere in an expeditious manner … and to provide the foundation for an all-inclusive international mechanism (SR.22, para. 26). Palau also expressed its strong support by stating that, as a small island nation, it was committed to exploring ways to alleviate further degradation of the atmosphere and also by referring to the fact that its Senate had adopted a resolution (SJR 9-33) urging the President of Palau to express strong support for the Commission's work (SR.24, para. 40). Germany expressed the view that protection of the atmosphere was a topic of utmost importance for humanity as a whole, hoping that the Commission's work on the topic would counteract the increasing fragmentation of international environmental law through horizontal analysis and cross-cutting approaches that extended beyond individual environmental regimes (SR.23, para. 39). Austria stated that, while an all-encompassing regime for the protection of the atmosphere would be desirable in order to avoid fragmentation, it would be useful to identify the rights and obligations of States that could be derived from existing legal principles and rules applicable to the protection of the atmosphere (SR.22, para. 19). Iran noted that, while the task assigned to the Special Rapporteur was fraught with difficulties, this did not mean that the importance of the legal issues surrounding the topic

suitability of the topic.[10] A few other delegations pointed out the particular complexities of the topic, which warrant special attention and treatment by the Commission.[11] Some delegates also commented on the proposed guidelines, which are referred to in the relevant paragraphs of the present report.[12]

6. In chapter III of its report on the work of its sixty-sixth session, the Commission indicated that it would welcome any information concerning the practice of States with regard to atmospheric protection. Replies to the Commission's request were received from the Federated States of Micronesia, Finland, Cuba, the United States of America and the Republic of Korea over the period from 31 January to 19 February 2015.

7. During and after the sixty-sixth session of the Commission, the Special Rapporteur maintained contact with representatives of interested governmental and non-governmental organizations. It has been agreed that at an informal meeting of the Commission in May 2015, an interactive dialogue will be held between the members of the Commission and scientists and experts associated with the United Nations Environment Programme (UNEP), the World Meteorological Organization (WMO) and the Economic Commission for Europe (ECE).

II. General guidelines: proposal of the Special Rapporteur based on the debate held at the Commission's sixty-sixth session

8. As already mentioned, the Special Rapporteur proposed three draft guidelines in his first report: draft guideline 1 on the use of terms: "atmosphere", draft

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should be downplayed, and also that ample flexibility should be allowed for him in order to fulfil the task of identifying custom regarding the topic and any gaps in the existing treaty regime (SR.24, para. 82). Italy and Japan stressed that the shared recognition of the topic's extreme importance for humankind should be the basis for the Commission' work, which should be carried out in a cooperative and constructive manner, notwithstanding differences of approach among its members (SR.23, paras. 51, 73). Indonesia stated that the work of the Commission on this topic would enable the international community to prevent environmental degradation by preserving and conserving the atmosphere which is a limited natural resource, while also suggesting that the modalities of the use of the atmosphere should be considered in greater detail (SR.27, para. 60). Many delegates expressed the view that, while the Special Rapporteur and the Commission should proceed with the work on the topic with caution and prudence on the basis of the 2013 understanding, it should be interpreted and applied with sufficient flexibility.

[10] Russia (A/C.6/69/SR.21, para. 135), France (SR.22, paras. 33-34), United Kingdom (SR.23, para. 32), United States of America (SR.24, paras. 65-66). These delegates expressed doubts about the feasibility of the topic, seeing it as highly technical and falling outside the mandate of the Commission. They stressed the importance of following strictly the 2013 understanding in order to ensure that the Commission's work might provide some value to States, while minimizing the risk that it would complicate and inhibit important ongoing and future negotiations on issues of global concern (United States of America, SR.24, para. 66).

[11] China (A/C.6/69/SR.23, paras. 54-55), Spain (SR.24, paras. 23-24), Republic of Korea (SR.25, paras. 28-29). China noted that the Commission's work should be carried out in a prudent and rigorous manner and be oriented toward providing a constructive complement to the various relevant mechanisms and political and legal negotiation processes under way, hoping that the Commission would continue to strengthen its research on relevant theories and practices in a rigorous manner and avoid using ambiguous concepts and gradually clarify relevant guidelines (SR.23, para. 54).

[12] See paragraphs 9, 21 and 28 of the present report.

guideline 2 on the scope of the draft guidelines, and draft guideline 3 on the legal status of the atmosphere.[13] Taking into consideration the discussion during the Commission's sixty-sixth session as well as additional scientific research-related feedback, the Special Rapporteur submits herein a new set of draft guidelines, which incorporates some changes made to the original proposals presented in the first report. It is hoped that this second set of draft guidelines reflects an adequate response to the insightful suggestions offered by members of the Commission during the discussion in 2014.

A. Definitions

1. Atmosphere

9. The Special Rapporteur's first report proposed a legal definition of the atmosphere in draft guideline 1. This definition should reasonably correspond to and reflect the characteristics of the atmosphere as identified in the scientific literature. The definition proposed in the first report was intended to serve as a working definition specifically for the present project. While a few members of the Commission thought that a definition of the atmosphere would not be necessary, the majority of the members generally agreed with the Special Rapporteur that it was both necessary and desirable to provide such a definition. The delegates who touched on this point in the meetings of the Sixth Committee of the General Assembly at its sixty-ninth session in 2014 generally favoured the insertion of a definition.[14] The Special Rapporteur believes that, for the present project, a working definition of the atmosphere is a matter of practical necessity. Any attempt to

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[13] Special Rapporteur's original proposal of draft guidelines in his first report was as follows:

Draft Guideline 1: Use of terms

For the purposes of the present draft guidelines,

(a) "Atmosphere" means the layer of gases surrounding the earth in the troposphere and the stratosphere, within which the transport and dispersion of airborne substances occurs.

Draft Guideline 2: Scope of the guidelines

(a) The present draft guidelines address human activities that directly or indirectly introduce deleterious substances or energy into the atmosphere or alter the composition of the atmosphere, and that have or are likely to have significant adverse effects on human life and health and the earth's natural environment.

(b) The present draft guidelines refer to the basic principles relating to the protection of the atmosphere as well as to their inter-relationship.

Draft Guideline 3: Legal Status of the atmosphere

(a) The atmosphere is a natural resource essential for sustaining life on earth, human health and welfare, and aquatic and terrestrial ecosystems; hence, its protection is a common concern of humankind.

(b) Nothing in the present draft guidelines is intended to affect the legal status of airspace under applicable international law.

[14] The view was expressed that the use of technical terms seemed inevitable, as the definition of boundaries of the atmosphere would necessarily involve technicalities and that the definition put forward might be regarded as an initial definition, subject to the formulation of a legal definition to be complemented by technical commentaries (Iran, A/C.6/69/SR.24, para. 83). In regard to the technical nature of defining the atmosphere, there was some agreement with the view that input was needed from scientific experts about the atmosphere and other technical information (Japan, SR.23, para. 74). One delegate stated that the natural characteristics of atmospheric circulation should be added as a component of the definition (Indonesia, SR.27, para. 61).

articulate guidelines for the protection of the atmosphere would benefit from a common understanding on what such guidelines are intended to cover.

10. As described in the first report, 80 per cent of air exists in the troposphere and 20 per cent in the stratosphere. It was therefore thought natural to delimit the scope of the topic to these two layers, where threats of air pollution, ozone depletion and climate change mainly arise, and in regard to which more or less complete scientific findings have been established. Some members, however, addressed the question whether to include the upper spheres (comprising the mesosphere and the thermosphere) within the definition of the atmosphere proposed in draft guideline 1.[15] It should be noted that the upper atmosphere constitutes only 0.0002 per cent of the atmosphere's total mass, which represents a relatively insignificant portion of the area that these proposed guidelines are intended to protect. However, as noted by one Commission member,[16] it is true that, according to some (albeit inconclusive) scientific findings, supplementary, if limited, effects of climate change on the mesosphere (up to some 85-95 km above the earth)[17] are discernible.[18] It is therefore proposed to delete the specific references to the troposphere and the stratosphere in draft guideline 1, as originally proposed in the first report. Further, the word "envelope" may be preferable to the word "layer" in order to eliminate confusion with specific layers of the atmosphere.[19] Finally, as the term "airborne substances" is used by scientists to indicate those substances related specifically to

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[15] Murphy (A/CN.4/SR.3211), Hassouna (SR.3211), Petrič (SR.3211), Forteau (SR.3211), Park (SR.3210).

[16] Kittichaisaree (A/CN.4/SR.3210).

[17] See Anne K. Smith, Roland R. Garcia, Daniel R. Marsh, Douglas E. Kinnison and Jadwiga H. Richter, "Simulations of the response of mesospheric circulation and temperature to the Antarctic ozone hole", *Geophysical Research Letters* (2010), 37 (22).

[18] According to findings of the Antarctic Division of the Australian Department of the Environment, it is reported, although not conclusively, that certain greenhouse effects manifest themselves in the mesosphere. <http://www.antarctica.gov.au/about-antarctica/environment/atmosphere/studying-the-atmosphere/hydroxyl-airglow-temperature-observations/climate-change-in-the-mesosphere> A separate study by Rashid Khosravi et al. shows that the long-term increase in the well-mixed greenhouse gases alters the thermal structure and chemical composition of the mesosphere significantly. Rashid Khosravi, Guy Brasseur, Anne Smith, David Rusch, Stacy Walters, Simon Chabrillat and Gaston Kockarts, "Response of the mesosphere to human-induced perturbations and solar variability calculated by a D-2 model", *Journal of Geophysical Research* (2002), vol. 107, No. D18, p. 4358. Furthermore, the above-mentioned study by Anne K. Smith, et al., reveals that the ozone hole in the stratosphere above Antarctica could influence circulation patterns in the mesosphere. Anne K. Smith, Roland R. Garcia, Daniel R. Marsh, Douglas E. Kinnison, Jadwiga H. Richter, "Simulations of the response of mesospheric circulation and temperature to the Antarctic ozone hole", *Geophysical Research Letters* (2010), 37 (22). Scientists are now considering the possibility of injecting certain particles into mesosphere in order to control climate (see for example, http://www.pnas.org/content/early/2010/09/02/1009519107.full.pdf). Thus, the mesosphere may be included in the coverage of direct human activities in the future, though at present such activities remain hypothetical. (The Special Rapporteur would like to express his appreciation to Ms. Zhou You of Peking University Graduate School of Law (graduate of its Science Department) for supplying this and other scientific information.)

[19] See the first report (A/CN.4/667), para. 69. The IPCC 5th assessment report, Working Group III, Annex I, glossary, defines the "atmosphere" as "[t]he gaseous envelope surrounding the earth." IPCC, *Climate Change 2014*, http://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_annex-i.pdf.

health damage and risk, a broader term, namely, "degrading substances",[20] has been chosen for use in this revised version of the definitional draft guideline.

11. Transcontinental transport of polluting substances is recognized as one of the major problems of the present-day atmospheric environment,[21] with the Arctic, as one depository of deleterious pollutants, becoming the region most seriously affected by their worldwide spread.[22] Thus, as proposed in the first report,[23] and in draft guideline 1 (a) contained in paragraph 17 below, the definition of the atmosphere needs to address *both* the substantive aspect of the atmosphere as an envelope of gases, and the functional aspect of the atmosphere as a medium within which the transport and dispersion of degrading substances occurs, as proposed.

2. Air pollution

12. In order for the topic to appropriately addressed, the term "air pollution" needs to be defined. A definition of "air pollution" can be found in article 1 of the Convention on Long-range Transboundary Air Pollution, which provides that "[f]or the purpose of the present Convention: (*a*) 'Air Pollution' means the introduction by man, directly or indirectly, of substances or energy into the air resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems and material property and impair or interfere with amenities and other legitimate uses of the environment, and 'air pollutants' shall be construed accordingly".[24] This definition is used widely in the relevant literature.[25] It may also be noted that article 1 (4) of the United Nations Convention on the Law of the Sea defines the term "pollution" as "such *deleterious* effects as harm to living resources and marine life, *hazards* to human health …" (emphasis added).[26] While the term "air pollution" is sometimes used broadly to include global deterioration of atmospheric conditions such as ozone depletion and climate change, the term is used

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[20] The term "atmospheric degradation" will be defined in Draft guideline 1 (c).

[21] See J. S. Fuglesvedt, K. P. Shine, T. Berntsen, J. Cook, D. S. Lee, A. Stenke, R. B. Skeie, G. J. M. Velders, I. A. Waitz, "Transport impacts on atmosphere and climate: metrics", 44:37 *Atmospheric Environment* (2010), pp. 4648-4677; I. Z. Shen, J. Liu, L. W. Horowitz, D. K. Henze, S. Fan, Levy II H., D. L. Mauzerall, J.-T. Lin and S. Tao, "Analysis of Trans-Pacific Transport of Black Carbon during HIPPO-3: Implications for Black Carbon Aging", *Atmospheric Chemistry and Physics*, vol. 14 (2014), pp. 6315-6327 ; D. J. Wuebbles, H. Lei and J.-T Lin, "Inter-continental transport of aerosols and photochemical oxidants from Asia and its consequences", *Environmental Pollution*, vol. 150 (2007), pp. 65-84; J.-T Lin, X.-Z Liang and D. J. Wuebbles, "Effects of inter-continental transport on surface ozone over the United States: Present and future assessment with a global model", 35 *Geophysical Research Letters* (2008), L02805.

[22] Several pollution threats to the Arctic environment have been identified, such as persistent organic pollutants (POPs) and mercury, which originate mainly from sources outside the region. These pollutants end up in the Arctic from southern industrial regions of Europe and other continents via prevailing northerly winds and ocean circulation. See Timo Koivurova, Paula Kankaanpää and Adam Stepien, "Innovative Environmental Protection: Lessons from the Arctic", *Journal of Environmental Law*, vol. 27 (2015), pp. 1-27, p. 13. http://jel.oxfordjournals.org/content/early/2015/02/13/jel.equ037.full.pdf?keytype=ref&ijkey=BjgzEgqY2lZXodu.

[23] Para. 70.

[24] 1302 UNTS 219.

[25] Alexandre Kiss, "Air Pollution", Rudolf Bernhardt, ed., *Encyclopedia of Public International Law*, vol. 1, Max Planck Institute (Amsterdam, North-Holland, 1992), p. 72.

[26] Art. 212 of the Convention provides an obligation to prevent airborne pollution of the sea. To that extent, the definition of "pollution" in this Convention is relevant to air pollution.

here in a narrow sense, in line with the above treaty practice, that is, excluding the global issues from the definition of air pollution. In the present report, it is considered appropriate to address the broader issues through use of the phrase "atmospheric degradation", which includes air pollution (in a narrow sense), ozone depletion and climate change, as discussed below (see paras. 14-16).

13. A few members of the Commission at its sixty-sixth session[27] suggested that the term "energy", as it relates to the introduction of pollutants into the atmosphere, be removed or limited so as to exclude radioactive and nuclear emissions. The Special Rapporteur considers that retaining the term "energy" is important to the Commission's work on the protection of the atmosphere. The term appears in both the Convention on Long-range Transboundary Air Pollution[28] and the United Nations Convention on the Law of the Sea[29] when "pollution" is being defined. It should also be noted that heat and light released into the atmosphere from large cities has already been recognized as a concern of the international community.[30] Furthermore, the Commission should not ignore the serious problem of nuclear emissions, especially in light of the 2011 Fukushima nuclear disaster,[31] which is a powerful reminder of the potential dangers of nuclear and radioactive pollution in a world with over five hundred nuclear power plants. While the Commission need not

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[27] Šturma (A/CN.4/SR.3212) and Park (SR.3210). The discussion of "energy" was held in connection with the original draft guideline 2 on scope in the first report.

[28] Art. 1 (a).

[29] Art. 1, paragraph 1(4) to include "the introduction of substances or energy into the marine environment." (emphasis added). See footnote 176 of the First report (A/CN.4/667).

[30] WMO/IGAC Report: Impact of Megacities on Air Pollution and Climate, GAW Report No. 205, WMO (September 2012); David Simon and Hayley Leck, "Urban Adaptation to Climate/Environmental Change: Governance, Policy and Planning". Special Issue, *Urban Climate*, Volume 7, pp. 1-134 (2014); John A. Arnfield, "Two decades of urban climate research: a review of turbulence, exchanges of energy and water, and the urban heat island", *International Journal of Climatology*, Vol. 23 (1), pp. 1-26; Lisa Gartland, *Heat Islands: Understanding and Mitigating Heat in Urban Areas* (London: Earthscan. 2008); See in general, Brian Stone Jr., *The City and the Changing Climate: Climate Change in the Places We Live* (Cambridge, MA: Cambridge University Press, 2012). (The Special Rapporteur is grateful to Dr. Terblanche Deon, Director of the Atmospheric Research and Environment Branch, World Meteorological Organization for the supply of the above information.)

See also Catherine Rich and Travis Longcore, eds., *Ecological Consequences of Artificial Night Lighting* (Washington DC: Island Press, 2006); Pierantonio Cinzano and Fabio Falchi, "The propagation of light pollution in the atmosphere", *Monthly Notices of the Royal Astronomic Society*, Vol. 427(4) (2012), pp. 3337-3357; Fereshteh Bashiri and Che Rosmani Che Hassan, "Light pollution and its effects on the environment", *International Journal of Fundamental Physical Sciences*, vol. 4 (2014), pp. 8-12. (The Special Rapporteur is grateful to Professor Peter H. Sand for supplying this and other valuable information.)

[31] The emissions from the Fukushima nuclear facilities comprised 7 to 23% of that from the Chernobyl power plant, and were far less than what was disseminated by the atmospheric nuclear tests conducted by the nuclear weapon States in the 1950s and 60s. For one of the key nuclides, Cesium-137 with a lifetime of 30 years, the total release from Fukushima was estimated at 6-20 Peta-Bq, compared with the Chernobyl release of 85 PBq. The weapons testing releases of Cesium-137 in the 1950s and 1960s were in total about ten times higher when compared with the Chernobyl release. See UN SCEAR 2013 Report to the General Assembly Scientific Annex A: Levels and effects of radiation exposure due to the nuclear accident after the 2011 great east-Japan earthquake and tsunami, 2014, UN Publication Sales No. E14.IX.1, http://www.unscear.org/docs/reports/2013/13-85418_Report_2013_Annex.A.pdf. (The Special Rapporteur is grateful to Dr. Gerhard Wotawa of the Central Institute for Meteorology and Geodynamics, Vienna, for supplying the above scientific information.)

explicitly mention radioactive substances in the draft guidelines, it is important to at least refer to the question of "energy" pollution as broadly conceived. Including such language, however, does not mean that the draft guidelines will in any way entail interference with States' nuclear energy policies, which of course encompass matters falling within the purview of their domestic affairs. As included in this draft guideline, energy as a general concept is designed to be effective but flexible: such inclusion involves following prior treaty practice and accurately addressing the topic of atmospheric protection, while specifically refraining from mentioning radioactive or other specific substances, pursuant to the "understanding". Draft guideline 1 (b) on "air pollution", as proposed, is contained in paragraph 17 below.

3. Atmospheric degradation

14. It may be noted that, as regards non-treaty sources of international law, a leading academic institution, and major domestic court decisions, have employed the term "air pollution" or "pollution" broadly rather than narrowly in order to cover such issues as stratospheric ozone depletion and climate change. Article 1 (1) of the resolution of Cairo in 1987 of the Institute of International Law (Institut de droit international), on transboundary air pollution, provides that "[f]or the purpose of this Resolution, 'transboundary air pollution' means any physical, chemical or biological *alteration in the composition* or quality of the atmosphere which results directly or indirectly from human action or omission, and produces injurious or deleterious effects in the environment of other States or of areas beyond the limits of national jurisdiction" (emphasis added).[32]

15. In relation to the concept of air pollution in the context of domestic courts, the Supreme Court of the United States, in the 2007 *Massachusetts v. Environmental Protection Agency* case,[33] discussed in part the meaning of "air pollutant" under Title II, §202(a)(1), of the Clean Air Act, according to which the term "air pollutant" means "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive … substance or matter which is emitted into or otherwise enters the ambient air".[34] In the course of the proceedings, the United States Environmental Protection Agency (EPA) asserted that Title II, §202(a)(1), of the Act[35] did not authorize EPA to regulate greenhouse gases, since such gases are not agents of air pollution in the traditional sense, and therefore could not be classified as air pollutants within the meaning of the Act. However, the Court held that the Act defined "air pollutant" so sweepingly that the term embraces "all airborne compounds of whatever stripe".[36] The Court therefore concluded that

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[32] http://www.idi-iil.org/idiE/resolutionsE/1987_caire_03_en.PDF.

[33] *Massachusetts v. EPA*, U.S. Supreme Court decision of 2 April 2007, 549 S. Ct. 497 (2007). See also, Jonathan Zasloff, "Massachusetts v. Environmental Protection Agency, 127 S. Ct. 1438", *American Journal of International Law*, vol. 102, No. 1 (2008), pp. 134-143.

[34] 42 U.S.C. §7602 (g). For domestic legislation of the United States, see also the written comments provided by the United States, 10 February 2015, pp. 2-5.

[35] Section 202 (a) (1) of the Clean Air Act stipulates the authority of the EPA to prescribe by regulation the emission of any air pollutant from new motor vehicles, providing that "[t]he Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare …" 42 U.S.C. §7521(a) (1).

[36] *Massachusetts v. EPA*, at 529.

"[b]ecause greenhouse gases fit within the Clean Air Act's capacious definition of 'air pollutant', … the EPA has the statutory authority to regulate emissions of such gases from new motor vehicles".[37] In response to this Court decision, the EPA determined that emissions of greenhouse gases from new motor vehicles would be subject to the requirements under the Act's provisions relating to Prevention of Significant Deterioration (PSD) of Air Quality and Title V of the Act. However, in the 2014 *Utility Air Regulatory Group v. Environmental Protection Agency* case, the Supreme Court pronounced that "where the term 'air pollutant' appears in the Act's operative provisions [such as the PSD and Title V], EPA has routinely given it a narrower, context-appropriate meaning".[38] Given the extensive use by the United States Congress of the term "air pollutant", the Court concluded that, when interpreting the PSD and Title V permitting requirements, the meaning of that term is narrower than the comprehensive definition recognized by the Court in *Massachusetts v. Environmental Protection Agency* under Title II.[39]

16. States vary as to the definition of "pollutant" in their domestic laws.[40] There is no problem as regards employing the term "air pollution" narrowly or broadly in a domestic law or in the matter of its interpretation by a domestic court.[41] In the setting of international law, however, the term should be used strictly as defined in treaties. Whatever harm may be caused by ozone depletion and climate change, it should be clearly distinguished from the harm caused by transboundary air

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[37] Ibid., at 532-533.

[38] *Utility Air Regulatory Group v. EPA*, U.S. Supreme Court decision of 23 June 2014, 134 S. Ct. 2427 (2014).

[39] It may be noted that the Court in the *Utility Air* first reaffirmed the broad "Clean Air Act wide" interpretation of the term "air pollutant" that the Court had announced in *Massachusetts v. EPA*, but then ruled that in certain of the operative provisions of the Clean Air Act, the term air pollution should be interpreted by the EPA to have a narrower meaning. Specifically, with respect to PSD and Title V (major sources) the Court ruled that with respect to GHG the term "air pollutant" should be interpreted to encompass only those air pollutants (including GHG) emitted in such quantities that enable them to be "sensibly regulated". Thus in the operative provisions the term air pollution may be interpreted in a quantitative sense. Qualitatively, however, it appears that the Act's wide definition still holds. Even under the Court's ruling, the EPA is free to regulate GHG emissions from 83% of US stationary sources nationwide. (The Special Rapporteur is grateful to Professor Thomas J. Schoenbaum of the University of Washington, Seattle, for his insightful comments on these U.S. Supreme Court cases.)

[40] For instance, the Environment Protection Act of the Federated States of Micronesia gives a broad definition of "pollutant" which allows its government office rather expansive regulatory authority to deter the introduction of substances into the atmosphere that might pose risks to human health, welfare, or safety. (Written comments by the Federated States of Micronesia, 31 January 2015, p. 3). The Environmental Act of Cuba, Title VI, chapter VII, regulates protection of the atmosphere. It provides, inter alia, for "[r]educing and controlling the release of pollutants into the atmosphere from artificial or natural sources, whether stationary or mobile, so as to ensure that air quality complies with regulatory standards, for the purpose of protecting the environment and, in particular, human health, and fulfilling the country's international commitments" (Art. 118, b). (Written comments by Cuba of 3 February 2015, p. 2). Furthermore, the 1990 Clean Air Conservation Act of the Republic of Korea provides for regulation of "air pollution and climate/eco-system changing substances" and cooperation with other nations in regard to these substances. (Written comments by the Republic of Korea of 19 February 2015, p. 1).

[41] In fact, while the United States "has sophisticated and detailed statutory and regulatory regimes in a variety of areas of atmospheric protection", it must be noted that "… these [U.S. domestic] regimes are designed to address their unique problems in unique ways, [and] are not subject to general rules …" (Written comments by the United States, 10 February 2015, p. 2).

pollution. It is therefore proposed that in the work on the present topic, the term "degrading substances" be used to refer to a broad range of atmospheric problems, including transboundary air pollution, stratospheric ozone depletion,[42] climate change[43] and any other alterations of the atmospheric conditions resulting in deleterious effects on human life and health and the Earth's natural environment, as proposed in draft guideline 1 (c).

17. It is therefore proposed that draft guideline 1 read as follows:

Draft guideline 1: Use of terms

For the purposes of the present draft guidelines,

(a) **"Atmosphere" means the envelope of gases surrounding the Earth, within which the transport and dispersion of degrading substances occurs.**

(b) **"Air pollution" means the introduction by human activities, directly or indirectly, of substances or energy into the atmosphere, resulting in deleterious effects on human life and health and the Earth's natural environment.**

(c) **"Atmospheric degradation" includes air pollution, stratospheric ozone depletion, climate change and any other alterations of atmospheric conditions resulting in significant adverse effects on human life and health and the Earth's natural environment.**

[Definition of other terms will be proposed at later stages.]

B. Scope

18. The second draft guideline proposed by the Special Rapporteur in his first report was intended to clearly designate the scope of the topic. Thus, paragraph (a) of draft guideline 2 indicated that the topic addresses only "anthropogenic" environmental degradation, which may take the form of the introduction of "deleterious substances or energy" into the atmosphere or the alteration of its "composition", that has or is likely to have "significant adverse effects" on the human and the natural environment. Paragraph (b) stated simply that the draft guidelines refer to basic principles of international environmental law and emphasized their interrelationship with regard to atmospheric protection. Draft guideline 2 proved less controversial than the other draft guidelines during the Commission's deliberation at its sixty-sixth session. While a few members questioned whether the topic encompasses domestic and local pollution,[44] the Special Rapporteur assured the Commission that the draft guidelines would be rightly limited to "transboundary" atmospheric damage, as indicated in the first report.

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[42] Art. 2 of the 1985 Vienna Convention on the Protection of the Ozone Layer, provides that "[t]he Parties shall take appropriate measures … to protect human health and the environment against adverse effects resulting or are likely to result from human activities which *modify or are likely to modify* the ozone layer." [emphasis added].

[43] As defined in art. 1 of the UNFCCC, "climate change" means "a change of climate which is attributed directly or indirectly to human activities that *alters the composition of the global atmosphere* and which is in addition to natural climate variability observed over comparable time periods" [emphasis added].

[44] Murphy (A/CN.4/SR.3211) and Wood (SR.3212).

19. A few members of the Commission raised specific concerns with regard to the phrase "deleterious substances",[45] as contained in draft guideline 2, arguing that it is too broad and may capture a range of activities with only minor atmospheric effects. However, if the reference to "deleterious substances" is rightly considered in the context of the second clause of draft guideline 2, paragraph (a), it is clear that the term is qualified by the phrase "that have or are likely to have significant adverse effects". Thus, the language contained in draft guideline 2 appropriately limits the scope of the project to certain human activities and deleterious substances with a significant adverse impact. Other members[46] expressed objections to the language contained within the second clause, suggesting that the term "significant" should be more clearly articulated. On this point, the Special Rapporteur noted that the Commission has frequently employed the term "significant" in its work, including in the draft articles on the prevention of transboundary harm from hazardous activities (2001). In that case, the Commission chose not to define the term, recognizing that the question of "significance" requires a factual determination, rather than a legal one.[47]

20. One member suggested that draft guideline 2 (a) contains terms encompassing a few substantive concepts, for example, "deleterious substances" and "significant adverse effects", and argued that such substantive terms should be removed and, instead, discussed together with the general principles in whose formulation they play a role.[48] However, the inclusion of substantive terms within draft articles or guidelines describing the scope of a project is consistent with the recent work practice of the Commission. Draft article 1 of the draft articles on the prevention of transboundary harm from hazardous activities provides that: "The present articles apply to activities not prohibited by international law which involve a risk of significant transboundary harm through their physical consequences." Here, important substantive concepts relating to transboundary harm, such as "risk",

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[45] Murphy (A/CN.4/SR.3211) and Hassouna (SR.3211).

[46] Kittichaisaree (A/CN.4/SR.3210) and Hassouna (SR.3211).

[47] See the commentary to the 2001 Articles, which state that "… significant is something more than "detectable" but need not be at the level of "serious" or "substantial". The harm must lead to a real detrimental effects [and] …Such detrimental effects must be able to be measured by factual and objective standards. [Commentary to draft art. 2, para. 4.] The term "significant", while determined by factual and objective criteria, also involves a value determination that depends on the circumstances of a particular case and the period in which such determination is made. For instance, a particular deprivation at a particular time might not be considered "significant" because at that time scientific knowledge or human appreciation did not assign much value to the resource. [Commentary to draft art. 2, para. 7.]

Examples of provisions employing the word "significant" in treaties and other instruments include:

(1) ILC Articles:

– Draft art. 1 of the Articles on Prevention of Transboundary Harm from Hazardous Activities (2001).

– Art. 7 of the Convention on the Law of the Non-navigational Uses of International Watercourses (1997).

– Draft art. 6 of the Articles on the Law of Transboundary Aquifers (2008).

(2) Other treaty provisions:

– Art. 2 (1) & (2) of the UNECE Convention on Environmental Impact Assessment in a Transboundary Context of 25 February 1991.

– Memorandum of Intent Concerning Transboundary Air Pollution, between the Government of the United States and the Government of Canada, of 5 August 1980.

[48] Nolte (A/CN.4/SR.3213).

"harm" and "significant harm", were incorporated into the article on scope. Following this successful model, draft guideline 2 is proposed in a form containing the minimum number of substantive concepts.

21. During the debate held at the meetings of the Sixth Committee of the General Assembly at its sixty-ninth session, it was stated that while the terms used to describe the scope of the work were sufficiently precise,[49] some clarifications were desired with regard to the terms "human activities", "deleterious substances", "energy",[50] and, specifically, "interrelationships".[51] The Special Rapporteur has tried to respond to these concerns as much as possible in the present report. It was agreed that the distinction between "atmosphere" and "airspace" must be maintained.[52]

22. As stressed by the Special Rapporteur in his first report, it is of crucial importance to differentiate between the concept of the atmosphere and that of airspace. These are two entirely different concepts within international law. While airspace is a static, area-based institution over which the State has "complete and exclusive sovereignty", the atmosphere is a dynamic, fluctuating substance which is in constant movement around the Earth and across national boundaries. Since the atmosphere is invisible, intangible and non-separable, it cannot be subjected to State sovereignty, jurisdiction or control.[53] The Special Rapporteur originally proposed draft guideline 3 (b) as a saving clause regarding the legal concept of "airspace". However, he now considers it more appropriate to include this saving clause in draft guideline 2 on scope. Draft guideline 2 will therefore read as follows:

Draft guideline 2: Scope of the guidelines

(a) **The present draft guidelines address human activities that directly or indirectly introduce deleterious substances or energy into the atmosphere or alter**

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[49] It was stated further that the references to alteration of the composition of the atmosphere and significant adverse effects could provide an appropriate starting point, and that reference to basic principles would be inevitable, as it would be impossible to examine rights and obligations of States without expounding upon the relevant principles (Iran, A/C.6/69/SR.24, para. 83).

[50] Malaysia, A/C.6/69/SR.24, para. 31.

[51] Indonesia, A/C.6/69/SR.29, para. 62. For clarification, the Special Rapporteur has added in this second report the words "with other relevant fields of international law".

[52] Denmark on behalf of the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), A/C.6/69/SR.22, para. 12.

[53] In fact, the ILC has been hesitant to apply the notions of State jurisdiction and control to environmental resources not clearly regarded as confined within a State's territory, as shown by two relevant treaties governing different types of water resources. In the 2008 Articles on the law of transboundary aquifers, its draft art. 3, concerning the sovereignty of aquifer States, provides that "Each aquifer State has sovereignty over the portion of a transboundary aquifer or aquifer system located in its territory. It shall exercise its sovereignty in accordance with international law and the present articles." Significantly, there is no comparable article in the Convention on the Law of the Non-Navigational Uses of International Watercourses. This can be explained by the fact that aquifers are confined bodies of water, sealed in a reservoir and over which the aquifer State can exercise sovereignty. The Watercourses Convention, in contrast, governs unconfined running water, over which the watercourse State cannot exercise sovereignty. The atmosphere is much more akin to international watercourses than aquifers in this regard, especially given that it flows even faster than watercourses, regularly surpassing hundreds of kilometres/hour and therefore not suitable to be subject to State sovereignty, jurisdiction or control. See Special Rapporteur's summation of the debate (A/CN.4/SR.3214).

the composition of the atmosphere, and that have or are likely to have significant adverse effects on human life and health and the Earth's natural environment.

(b) **The present draft guidelines refer to the basic principles relating to the protection of the atmosphere as well as to their interrelationship with other relevant fields of international law.**

(c) **Nothing in the present draft guidelines is intended to affect the legal status of airspace under applicable international law.**

23. As proposed in the Special Rapporteur's first report, the third draft guideline, which concerned the legal status of the atmosphere, framed its protection of the atmosphere as a "common concern of humankind". Many members of the Commission voiced concerns about the use of this designation and the concept's specific legal content. Since, as was discussed, the proposed guideline contains certain normative elements which may not be accurately described under the heading "general guidelines", the Special Rapporteur has placed original draft guideline 3 under the designation "basic principles". Consequently, the debate of the Commission held at its sixty-sixth session is summarized in section IV of the present report (see paras. 26-27 below).

III. Basic principles concerning the protection of the atmosphere

A. Status of the principles

24. This report discusses the basic principles concerning the protection of the atmosphere and in this regard proposes pertinent draft guidelines reflecting those principles. Accordingly, it may be proper to clarify the role of the basic principles at the outset. While there is some divergence of views among legal experts on the definition of principles, their nature, status and role, and their function and effect,[54] it seems generally to be the case that the term "principle" signifies a high level of legal authority.[55] It is generally understood that principles are not merely aspirational, but have a certain legal significance. Most fundamentally, "when we say that a particular

[54] See in general Jun'ichi Eto, "Significance of principles in international adjudication", in Eto, ed., *Aspects of International Law Studies* (Festschrift for Shinya Murase) (Tokyo: Shinzansha, 2015), pp. 729-754 (in Japanese); R. Wolfrum, "General international law (principles, rules and standards)", R. Wolfrum, ed., *The Max-Planck Encyclopedia of Public International Law*, vol. IV (Oxford: Oxford University Press, 2012), pp. 344-368; N. Petersen, "Customary law without custom? Rules, principles and the role of State practice in international norm creation", *American University International Law Review*, vol. 23 (2008), pp. 275-309; R. Kolb, "Principles as sources of international law", *Netherlands International Law Review*, vol. 53 (2006), pp. 1-36. See also Ulrich Beyerlin, "Different Types of Norms in International Environmental Law: Policies, Principles, and Rules", in Daniel Bodansky, *et al.*, eds, *The Oxford Handbook of International Environmental Law* (Oxford: Oxford University Press, 2007), pp. 425f.; International Law Association, "First Report of the Committee on Legal Principles Relating to Climate Change", *Report of the International Law Association*, The Hague Conference (2010), pp. 355-357, *Ditto*, "Second Report", Sofia Conference (2012), pp. 439-442.

[55] It seems to be the shared view of most authors that the difference between the "rules" and "principles" relates merely to generality and fundamentality of the norm (e.g., P. Weil, "Le droit international en quête de son identité: Cours général de droit international public", Hague Academy of International Law, *Recueil des cours*, vol. 237 (1992), p. 150), while others see it in terms of a qualitative difference (Eto, ibid., p. 734).

principle is a principle of law we mean that the principle is one which officials must take into account if it is relevant as a consideration".[56] Thus, principles encompass key factors that must be taken into account by decision makers. In other words, principles can "set limits, or provide guidance, or determine how conflicts between other rules and principles will be resolved".[57] This point was made by the International Court of Justice) in the Gabčikovo-Nagymaros Project case, where it observed, when discussing the principle of sustainable development, that "new norms and standards have been developed, set forth in a great number of instruments during the last two decades" and that "[s]uch new norms have to be taken into consideration, and such standards given proper weight".[58] Similarly, the Commission stated in the general commentary (5) to the draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities that "[t]he draft principles are … intended to contribute to the process of development of international law in this field both by providing appropriate guidance to States in respect of hazardous activities not covered by specific agreements and by indicating the matters that should be dealt with in such agreements".[59]

B. Principles to be covered by the present draft guidelines

25. Principles can emerge from treaty practice, jurisprudence of international courts and tribunals, non-legally-binding international instruments, national legislation and jurisprudence of domestic courts, and other State practice, and may evolve into rules of customary international law.[60] Since the Commission's mandate encompasses the codification and progressive development of international law, the principles identified as applicable to atmospheric protection for the purposes of this project are limited to those that are either established or emergent as customary international law.[61] The present report focuses on basic principles relevant to the protection of the atmosphere. They include the common concern of humankind, the general obligations of States, international cooperation, *sic utere tuo ut alienum non laedas*, sustainable development, equity, prevention and precaution, and the interrelationship with other relevant fields of international law. The present report considers the first three principles, beginning with the degradation of atmospheric conditions as a common concern of humankind.

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[56] Ronald Dworkin, *Taking Rights Seriously* (Cambridge, MA: Harvard University Press, 1977), pp. 24-27.

[57] A. E. Boyle, "Some Reflections on the Relationship of Treaties and Soft Law", *International and Comparative Law Quarterly*, vol. 48 (1999), p. 907.

[58] *I.C.J. Reports 1997*, para. 140.

[59] *Official Records of the General Assembly, Sixty-first Session, Supplement No. 10* (A/61/10), pp. 110f.

[60] See First report, A/CN.4/667, paras. 29-63.

[61] With regard to the notion of "emergent rules of customary international law", see the judgment in the *North Sea Continental Shelf* cases, *I.C.J. Reports 1969*, p. 41.

IV. Degradation of atmospheric conditions as a common concern of humankind

A. Debates held at the sixty-sixth session of the Commission and at the meetings of the Sixth Committee of the General Assembly at its sixty-ninth session

26. In his first report, the Special Rapporteur stated that the atmosphere is a natural resource essential for sustaining life on Earth and maintaining the integrity of ecosystems, and consequently that the protection of the atmosphere is a "common concern of humankind". In line with General Assembly resolution 43/53 of 6 December 1988 and the first paragraph of the preamble to the United Nations Framework Convention on Climate Change (opened for signature in 1992), the Special Rapporteur indicated that it would be most appropriate to characterize the legal nature of such protection as a common concern rather than as a common property or a common heritage. In light of the growing recognition of the linkages between transboundary air pollution and global climate change, the first report applied the concept of common concern to atmospheric problems as a whole. "Common concern" implies, and provides the basis for, cooperation of all States on matters of a similar importance to all nations.[62]

27. During the debate held at the sixty-sixth session of the Commission, several members expressed their agreement with the Special Rapporteur that the protection of the atmosphere is indeed a common concern of humankind, while stressing the need for further elaboration of the issue.[63] There were several questions raised by members in regard to the classification, in the first report, of the protection of the atmosphere as a common concern of humankind. First, it was noted that the concept of common concern still might not be clear or established in international law and lack sufficient support in State practice. Second, although global issues such as ozone depletion and climate change might be included under the heading of common concern, it was doubted whether transboundary air pollution confined to a limited impact within the bilateral relations of States could be properly labelled as such. Third, it was felt that the link between the concept of common concern and *erga omnes* obligations needed further clarification. Fourth, a point was raised questioning the appropriateness of employing the concept of common concern before specific obligations of States were prescribed in the draft guidelines. Fifth, it was stated that, in the context of legal policy, the concept of common concern was too weak and that, the concept of common heritage should be used instead, with respect to protection of the atmosphere. The Special Rapporteur sought to answer all these questions in his summation at the conclusion of the debate at the Commission's sixty-sixth session,[64] and it is hoped that further substantiation and clarification will be provided in the following sections.

28. During the debate held at the meetings of the Sixth Committee of the General Assembly at its sixty-ninth session in 2014, the way in which delegates referred to the concept of common concern was, to a large extent, similar to the way in which

[62] See ibid., paras. 86-90.

[63] Tladi (A/CN.4/SR.3211), Hassouna (SR.3211), Valencia-Ospina (SR.3213), Candioti (SR.3212), Niehaus (SR.3211), Petric (3211), Vazquez-Burmudez (SR.3212), Wisnumurti (3212).

[64] A/CN.4/SR.3214.

the concept was referred to at the debate held during the sixty-sixth session of the Commission. Several States expressed support for the concept of common concern proposed by the Special Rapporteur,[65] while noting further, by way of clarification, that it was not the protection of the atmosphere, but rather its deteriorating condition, that constituted "the common concern of humankind".[66] Some delegations objected to the use of the term within the framework of the topic: it was considered that the concept was vague and controversial, and that its content was not only difficult to define but also subject to various interpretations.[67] The qualification of the atmosphere as a natural resource whose protection is a "common concern of humankind" still left open the question which particular obligations could be derived therefrom.[68] It was suggested, however, that such an affirmation would not necessarily entail substantive legal norms which directly set out legal relationships among States, but, rather, would represent an acknowledgement that the protection of the atmosphere was not an exclusively domestic matter.[69] Although some delegations had no objections, in principle, to this qualification, they suggested that it required further consideration by the Commission in its subsequent work, including with respect to its relationship with other environmental principles and concepts.[70] It was stressed by some delegations that from a legal perspective, the topic required an integrated approach which treated the atmosphere as a single global unit, since it was a dynamic and fluid substance in constant movement across national boundaries.[71]

29. It is appropriate to first address the suggestion of employing the concept of "common heritage" rather than that of "common concern of humankind" before turning to the other questions specifically related to the concept of common concern. It was the view of a few members of the Commission at its sixty-sixth session that the concept of common concern may be too weak to provide an effective legal regime for such an important problem as the protection of the atmosphere, and that the stronger concept of a "common heritage" framework should be used instead.[72] It was noted that while the 1979 Moon Agreement[73] provided a "common heritage of mankind" label for the moon and its natural resources (article 11, para. 1), the common heritage regime for the moon never took full effect. It may also be noted that the concept of "common heritage" seems to have acquired new meaning in the course of the negotiations on the United Nations Convention on the Law of the Sea during the 1970s. Since then, the concept has been understood to require a far-reaching institutional apparatus for the implementation of protective mechanisms such as the one provided for in Part XI of

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[65] Federated States of Micronesia (A/C.6/69/SR.22, para. 23), Japan (SR.23, para. 74), Cuba (SR.23, para. 79), Palau (SR.24, para. 42), El Salvador (SR.23, para. 92), Islamic Republic of Iran (SR.24, para. 83) and Indonesia (SR.27, para. 60).

[66] Indonesia (A/C.6/69/SR.27, para. 60).

[67] France (A/C.6/69/SR.22, para. 34), United Kingdom (SR.23, para. 32), China (SR.23, para. 55), Poland (SR.23, para. 62), Spain (SR.24, para. 24), Viet Nam (SR.25, para. 18), India (SR.26, para. 112).

[68] Austria (A/C.6/69/SR.22, para. 20).

[69] Japan (A/C.6/69/SR.23, para. 74), Indonesia (SR.27, para. 60).

[70] Cuba (A/C.6/69/SR.23, para. 79), Spain (SR.24, para. 24), India (SR.26, para. 112), Indonesia (SR.27, para. 60), Islamic Republic of Iran (SR.24, para. 83).

[71] Palau (A/C.6/69/SR.24, para. 42), Viet Nam (SR.25, para. 18).

[72] Peter (A/CN.4/SR.3212) and Wako (SR.3213).

[73] 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (1363 UNTS 3).

the Convention, which nonetheless needed to undergo fundamental changes as a result of the 1994 Implementation Agreement.[74] Thus, the concept of common heritage has failed to gain traction beyond the quite limited success within the Convention regime of the deep seabed. In addition to the aforementioned difficulties, the initial conceptualization of plant genetic resources as part of the common heritage was almost immediately retracted,[75] and a similar argument for the consideration of climate change and biodiversity as part of the common heritage did not find support in the final draftings of the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity. While in its preamble, the 1972 World Heritage Convention formulates the notion that "parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole", it has been observed that "in tone and consequence, this feels more like 'common concern' than 'common heritage', certainly as understood within the institutional context of UNCLOS".[76] Thus, "common concern" should be the preferred term with respect to the protection of the atmosphere, as was the case in the 1992 Rio Conventions on climate change and biological diversity.[77] It conveys the appropriately strong sense of purpose without potentially creating burdensome implementation requirements à la UNCLOS or disagreement about overreach, which has been a problem in the past when implementation of a "common heritage" standard has been attempted.

B. The "common concern of humankind" concept in treaty practice

30. The concept of the common concern of humankind has been clearly and fully established, and to a sufficient extent, in State practice and the relevant literature. The well-known first paragraph of the preamble to the 1992 United Nations Framework Convention on Climate Change acknowledges that "change in the Earth's climate and its adverse effects are a *common concern of humankind*"

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[74] Agreement on the Implementation of Part XI of the 1982 Law of the Sea Convention (1833 UNTS 3).

[75] M. Bowman, "Environmental Protection and the Concept of Common Concern of Humankind", in M. Fitzmaurice, D. Ong and P. Merkouris (eds.), *Research Handbook on International Environmental Law* (Cheltenham: Edward Elgar, 2010), p. 501.

[76] Duncan French, "Common Concern, Common Heritage and Other Global(-ising) Concepts: Rhetorical Devices, Legal Principles or a Fundamental Challenge?" M. J. Bowman, P. G. G. Davies and E. J. Goodwin, eds., *Research Handbook on Biodiversity and Law* (Cheltenham: Edward Elgar, 2015, forthcoming), pp. 7-8, 11; Jutta Brunnée, "Common Areas, Common Heritage, and Common Concern", in Daniel Bodansky, Jutta Brunnee and Helen Hey, eds., *The Oxford Handbook of International Environmental Law* (Oxford: Oxford University Press, 2007), p. 565; Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment*, third ed. (Oxford: Oxford University Press, 2009), pp. 128-130; Dinah Shelton, "Common Concern of Humanity", *Environmental Policy and Law*, vol. 39 (2) (2009), pp. 83-96; *Ditto*, "Equitable Utilization of the Atmosphere: Rights-based Approach to Climate Change?", in *Human Rights and Climate Change* (Cambridge: Cambridge University Press) 2010; Stephen Stec, "Humanitarian Limits to Sovereignty: Common Concern and Common Heritage Approaches to Natural Resources and Environment", *International Community Law Review*, vol. 12, Issue 3 (2010), pp. 361-389.

[77] See the first report, paras. 87-88; It may be noted that the notion of common concern is "conceptually more open ended" than that of common heritage which is inherently limited by its focus on certain resources. It should also be noted "the concept [of common heritage] is targeted more narrowly at specific environmental processes or protective actions". Jutta Brunnée, p. 564.

(emphasis added).[78] Likewise, the preamble to the Convention on Biological Diversity (opened for signature in 1992) declares the parties thereto to be "[c]onscious … of the importance of biological diversity for evolution and for maintaining life sustaining systems of the biosphere" (second para.), and affirms that "the conservation of biological diversity is a *common concern of humankind*" (third para., emphasis added).[79] In its prologue, the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, adopted in 1994, utilized phrases similar to "common concern", including "centre of concerns", "urgent concern of the international community" and "problems of global dimension" in the context of combating desertification and drought.[80] It should be noted that in those conventions, which enjoy universal acceptance,[81] virtually all States agreed that there was a strong need for the international community's collective commitment to tackling these global problems.[82] In this regard, the main benefit of employing the term "common concern" in prior relevant environmental treaty practice has been to encourage participation, collaboration and action rather than discord, which the Special Rapporteur finds especially important with regard to the topic at hand.

31. The Special Rapporteur considers employment of the term "common concern of humankind" to be justified in the transboundary context based on contemporary treaty practice. The Minamata Convention on Mercury (adopted in 2013) recognizes mercury as "a chemical of *global concern* owing to its long-range atmospheric transport" (first para. of the preamble, emphasis added).[83] The Minamata

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[78] Preamble, first paragraph, of the UNFCCC.

[79] The scope of application of the Biodiversity Convention clearly includes the atmosphere. (See Article 2, paragraph 1 (on the use of term) which provides that the "biological diversity" which means "the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems *and the ecological complexes of which they are part*", and Article 4 (on jurisdictional scope) which provides that the Convention is applicable to paragraph (b) "In case of processes and activities, *regardless of where their effects occur, carried out under its jurisdiction or control within the area of its national jurisdiction or beyond the limits of national jurisdiction*") (emphases added). The term "biosphere" refers to "sphere of life" or the "space where life exists or may exist". It is "the nature system comprised of the atmosphere, lithosphere, and hydrosphere, or air, soil, rock, minerals and water of the Earth, all of which support living organisms". Patricia M. Mische, "Ecological Security and the Need to Re-conceptualize Sovereignty", *Alternatives*, vol. 14 (1989), pp. 389-427.

[80] It goes without saying that desertification and draught have much to do with atmospheric conditions.

[81] As of 15 February 2015, the UNFCCC has 196 Parties, the Biodiversity Convention 195 and the Desertification Convention 195.

[82] It may be noted that, although the 1985 Vienna Convention on the Protection of Ozone Layer, which has 197 Parties, does not employ the term "common concern", it nonetheless expresses a similar foundational idea by postulating that the "measures to protect the ozone layer … require international cooperation and action" (paragraph 6 of the preamble). The 1987 Montreal Protocol (also 197 Parties) cautious against "the potential climatic effects of emissions of these [ozone depleting] substances" (paragraph 4 of the preamble).

[83] Minamata Convention on Mercury (Kumamoto, 10 October 2013) C.N.560.2014.TREATIES-XXVII.17. The Convention has 128 signatories and 10 parties as of 15 February 2015. (According to article 31, the Convention shall enter into force on the 90th day after the date of deposit of the 50th instrument of ratification, acceptance, approval or accession.)

Convention has been characterized in the recent work of leading researchers[84] as a treaty that identifies and seeks to tackle a particular threat. To that extent, it follows the Stockholm Convention on Persistent Organic Pollutants (adopted in 2001), which took a more descriptive approach, noting that "persistent organic pollutants … are *transported, through air*, water and migratory species, *across international boundaries and deposited far from their place of release*, where they accumulate in terrestrial and aquatic ecosystems" (preamble, emphasis added). The draft guidelines for the protection of the atmosphere follow the pattern of both conventions, which affirm the need for a collective response to the threats of environmental risk owing to its global nature, even if at its origin, the harm is of a transboundary nature.

32. Furthermore, it should be noted that the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to the 1979 Convention on Long-range Transboundary Air Pollution, adopted in Gothenburg, Sweden, in 1999, was amended on 4 May 2012 to include black carbon and tropospheric ozone, which have certain adverse effects on both transboundary air pollution and climate change.[85] The text of the preamble to the amended 1999 Protocol reads, in part, as follows:

> "*Concerned also* that emitted [chemical substances] are transported in the atmosphere over long distances and may have adverse transboundary effects" (third para.),
>
> "*Recognizing* the assessments of scientific knowledge by international organizations, such as the United Nations Environmental Programme, and by the Arctic Council, about the human health and climate co-benefits of reducing black carbon and ground-level ozone …" (fourth para.),
>
> "*Aware also* of the commitment that Parties have assumed under the United Nations Framework Convention on Climate Change" (last para.).

The objective of the amended Protocol, as set out in article 2, paragraph. 1, should also be noted:

> "The objective of the present Protocol is to control and reduce emission of [chemical substances] that are caused by anthropogenic activities and are likely to cause adverse effects on human health and the environment, natural ecosystems, materials, crops and *the climate* in the short and long term, due to acidification, eutrophication, particulate matter or ground-level ozone as a result of long-range transboundary atmospheric transport, and to ensure, as far as possible, that in the long term and in a stepwise approach, taking into account advances in scientific knowledge, atmospheric dispositions or concentrations do not exceed [critical levels as described in annex I, etc.]" (emphasis added).

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[84] Duncan French, "Common Concern, Common Heritage and Other Global(-ising) Concepts: Rhetorical Devices, Legal Principles or a Fundamental Challenge?" M. J. Bowman, P. G. G. Davies and E. J. Goodwin, eds., *Research Handbook on Biodiversity and Law* (Cheltenham: Edward Elgar, 2015 forthcoming), p. 13.

[85] Document of the Economic and Social Council ECE/EB.AIR/114 (6 May 2013, consolidated text) available at http://www.unece.org/fileadmin/DAM/env/documents/2013/air/eb/ECE.EB.AIR.114_ENG.pdf The amendments to Annex I to the Protocol became effective for all Parties to the Protocol on 5 June 2013, while the amendments of the text of and Annexes II to IX and addition of new Annexes X and XI are not yet in force.

Thus, there exists a significant treaty practice of addressing the linkage between transboundary air pollution and climate change. Against the backdrop of such a growing recognition of this inherent linkage, application of the concept of "common concern" to the issues in the transboundary context should be considered appropriate to the extent that a relationship exists with atmospheric problems of global dimension.

33. The endeavour, in the work on the present topic, is to establish a cooperative framework for atmospheric protection, without seeking either to establish common ownership or management or to mold a liability regime of atmospheric protection. This narrow application of the concept of "common concern" is in line with existing applications of the concept in international environmental law, as described above, and reflects the understanding that it is not a particular resource that is common, but rather that *threats* to that resource are of common concern, since States both jointly contribute to the problem and share in its effects. To the extent that transboundary air pollution is a global phenomenon, the concept of "common concern of humankind" would apply, since "transboundary or regional environmental issues which cannot be effectively managed by national or regional efforts can give rise to common concern".[86] Furthermore, the principle of *sic utere tuo ut alienum non laedas* has been imported into the concept of global atmospheric protection in a multiplicity of ways. That this principle is not now limited to the narrow context of bilateral transboundary harm has been confirmed in the jurisprudence of the International Court of Justice. Further, the principle was recognized in the eighth paragraph of the preamble to the United Nations Framework Convention on Climate Change, and in article 2, paragraph 2 (b), of the 1985 Vienna Convention for the Protection of the Ozone Layer. The import of the *sic utere tuo* principle into the global issues of international environmental law attests to the juridical linkage between transboundary harm and global issues surrounding atmospheric protection. Thus, the expansion of the scope of application of this principle has been recognized by judicial precedents, in treaty practice and in the literature, as discussed further in section V.B below.

34. The work of the Commission on the codification and progressive development of international law requires the use of both inductive and deductive approaches. Even the codification exercise, which is supposed to entail the recitation of the rules of existing customary international law, to be identified by the usual inductive approaches, includes the work of "more precise formulation and systematization" (article 15 of the statute of the Commission). During formulation and systematization, some elements of deduction inevitably enter into the process. This is even more the case with respect to the work of progressive development of international law in dealing with subjects "which have not yet been regulated by international law or in regard to which the law has not yet been sufficiently developed in the practice of States". While the concept of "common concern of humankind" appears to have received widespread acceptance in State practice, it still may be regarded in part as a developing notion, in which case a deductive

[86] Alexander Kiss, "The Common Concern of Mankind", *Environmental Policy and Law*, vol. 27 (4) (1997), p. 246.

approach may be justified to the extent that it conforms to the emergent principles and rules of customary international law.[87]

35. As stated in the first report,[88] according to the legal content of the concept of common concern, the matter in question does not fall solely within the domestic jurisdiction of States, owing to its global importance and consequences for all.[89] What is at stake in the protection of the atmosphere and the protection of the environment in general may not be in the immediate interest of a State or States, but, instead, may reflect a more remote, general concern: a benefit for (or the prevention of harm to) all humankind, which can be achieved only through the acceptance of basic and general obligations by all States and international cooperation, even if they reap no immediate gains or returns.[90]

36. It should be noted that the Rio Conventions do not identify climate and biological diversity per se as being of common concern. The emphasis in respect of common concern is placed on the necessity for international cooperation, not on the resources in and of themselves. It is therefore considered that the raison d'être of common concern is the collective responsibility to act.[91] In other words, common concern reflects a willingness by the international community to act collectively to protect the integrity of the biosphere and of the atmosphere by entitling — or even requiring — all States to cooperate on the international level to address the concern.[92] For all of the above-mentioned reasons, the Special Rapporteur finds that common concern forms the soundest basis for international cooperation to protect the atmosphere.

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[87] During the Commission's debate at its sixty-sixth session in 2014, a few members made a critical comment that the Special Rapporteur was "putting a cart before the horse", to which he responded in his summation that, in this context, a better metaphor might be "putting a baby carriage before the mother". It means that it is the responsibility of the present generation (mother) to push and encourage the development of such a concept as "common concern of humankind" for the future generation (baby). (A/CN.4/SR.3214).

[88] A/AC.4/667, para. 89.

[89] Kiss, "The Common Concern of Mankind", p. 247.

[90] Kiss, p. 245. The implications of the concept of common concern of mankind in relation to global environmental issues were examined at a meeting of the UNEP Group of Legal Experts held in Malta from 13-15 December, 1990. It has been noted that the "'common concern' concept has at least two important facets: spatial and temporal. Spatial aspect means that common concern implies cooperation of all states on matters being similarly important to all nations, to the whole international community. Temporal aspect arises from long-term implications of major environmental challenges which affect the rights and obligations not only of present but also of future generations." (UNEP/Executive Director and Secretariat, *Note to the Group of Legal Experts to Examine the Implications of the "Common Concern of Mankind" Concept on Global Environmental Issues*, Malta Meeting, 13-15 Dec. 1990, document UNEP/ELIU/WG.1/112). A. A. Cançado-Trindade and D. J. Attard, "The Implication of the 'Common Concern of Mankind' Concept on Global Environmental Issues", in Toru Iwama, ed., *Policies and Laws on Global Warming: International and Comparative Analysis* (Tokyo: Environmental Research Center, 1991), pp. 7-13.

[91] Duncan French, "Common Concern, Common Heritage and Other Global(-ising) Concepts: Rhetorical Devices, Legal Principles or a Fundamental Challenge?", p. 13.

[92] Jutta Brunnée, "Common Areas, Common Heritage, and Common Concern", p. 566. See also Charlotte Kreuter-Kirchhoff, "Atmosphere, International Protection", *Max Planck Encyclopedia of Public International Law*, vol. I, Rüdiger Wolfrum, ed. (Oxford: Oxford University Press, 2012), pp. 737-744 (the atmosphere as a "common concern of mankind").

37. The concept of common concern may be interpreted broadly or narrowly. A broad interpretation would include a legal effect that gives all States a legal interest, or standing, in the enforcement of rules concerning protection of the atmosphere. However, as discussed in the next section on the general obligation of States, since there are no appropriate procedures yet established in international law enabling *actio popularis*, this expansive interpretation cannot be sustained.[93] According to another possible interpretation, the concept of common concern creates rights for individuals and future generations. This interpretation, however, also lacks, as yet, a solid legal basis in contemporary international law on the protection of the atmosphere, which makes no reference to individual rights. The preamble to the United Nations Framework Convention on Climate Change does refer to the interests of future generations, but only as an object of concern; further, there are no institutions or procedures in place to enable future generations to be represented or given rights.[94] According to a third interpretation, common concern creates substantive obligations for the protection of the atmosphere.[95] Since the concept of common concern does not imply a specific rule of conduct for States,[96] it is difficult to conceive how the concept itself can lead to the creation of specific substantive obligations for States.[97] However, it can certainly serve as a supplement in the creation of two general obligations of States, namely, to protect the atmosphere (as discussed in sect. V) and to cooperate with each other for the protection of the atmosphere (as discussed in sect. VI).

38. One means of articulating the concept of common concern in relation to the atmosphere is to stipulate proactively that the *protection* of the atmosphere is a common concern. This approach was taken by the Special Rapporteur in his first report, and is similar in kind to that reflected in the third paragraph of the prologue to the Convention on Biological Diversity, which provides "that the *conservation* of biological diversity is a common concern of humankind" (emphasis added). Another way of expressing common concern could be through the (more passive) recognition of deteriorating atmospheric conditions as being a matter of common concern, in line with the first paragraph of the preamble to the United Nations Framework Convention on Climate Change, which acknowledges "that *change in the Earth's climate and its adverse effects* are a common concern of humankind" (emphasis added). Given the need for prudence in pursuing the present topic, the latter approach may be considered more readily acceptable as regards the present draft guideline. The wording of draft guideline 3 has therefore been changed accordingly.

39. The justification and scientific basis of other concepts employed in draft guideline 3 below, such as that of "the atmosphere as a natural resource", have already been fully discussed in the Special Rapporteur's first report[98] and are not repeated here. Pursuant to the above, draft guideline 3 reads as follows:

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[93] Alan E. Boyle, "International Law and the Protection of the Global Atmosphere: Concepts, Categories and Principles", Robin Churchill and David Freestone, eds., *International Law and Global Climate Change* (Leiden: Kluwer Academic Publishing, 1991), pp. 11-12.

[94] Ibid., pp. 12-13.

[95] Ibid., p. 13.

[96] Jutta Brunnée, "Common Areas, Common Heritage, and Common Concern", p. 566.

[97] "[C]ommon concern … is a general concept which does not connote specific rules and obligations, but establishes the general basis for the community concerned to act." Kiss, "The Common Concern of Mankind", p. 246.

[98] First report (A/CN.4/667), paras. 64-81.

Draft guideline 3: Common concern of humankind

The atmosphere is a natural resource essential for sustaining life on Earth, human health and welfare, and aquatic and terrestrial ecosystems, and hence the degradation of atmospheric conditions is a common concern of humankind.

40. As outlined above, application of the concept of the common concern of humankind has two important corollaries as regards the protection of the atmosphere (which are considered below): the general obligation of States to protect the atmosphere and international cooperation for the protection of the atmosphere.

V. General obligation of States to protect the atmosphere

41. Article 192 of the United Nations Convention on the Law of the Sea sets out the general obligation of States "to protect and preserve the marine environment", which could also be characterized as an obligation *erga omnes*. This report submits that the same general obligation is applicable to the protection of the atmosphere. In order that this may be substantiated, it is first necessary to discuss the meaning and function of the term "obligations *erga omnes*".

A. Obligation *erga omnes*

42. As is well known, it was in the famous obiter dictum of the judgment in the *Barcelona Traction* case that the International Court of Justice invoked the notion of obligations *erga omnes*, which referred to "obligations of a State towards the international community as a whole", that is, obligations that "by their very nature … are the concern of all States".[99] The Court thus identified the notion of obligations existing towards the international community as a whole with that of obligations existing towards all States, which possess corresponding "rights", in contrast to the notion of the traditional type of "reciprocal obligations" owed by a State vis-à-vis another State within their bilateral relationship, in which only the latter State has the corresponding right. The Court went on to state that "[i]n view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations *erga omnes*".[100]

43. As a reflection of the changing structure of the international legal order, the importance of protecting community interests has been increasingly emphasized by authors.[101] The International Court of Justice has played a significant role in the development of this process. For instance, the Court considered that respect for self-determination is a right and obligation *erga omnes* in both the 1995 *East Timor* case[102] and the 2004 *Construction of a Wall* case.[103] In the latter case, the Court

[99] *I.C.J. Reports 1970*, p. 32, para. 33.

[100] Ibid.

[101] See, C. Annacker, "The Legal Regime of Erga Omnes Obligations in International Law," *Austrian Journal of Public International Law*, Vol. 46, (1994), pp. 131-166; Bruno Simma, "From Bilateralism to Community Interests in International Law," *Recueil des cours*, vol. 250, (1994), pp. 217-384; Christian Tomuschat, "International Law, Ensuring the Survival of Mankind on the Eve of a New Century," *Recueil des cours*, vol. 281, (1999), pp. 9-438.

[102] *East Timor (Portugal v. Australia), Judgment of 5 February 1995, I.C.J. Reports 1995*, p. 105, para. 29.

[103] *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion of 9 July 2004, I.C.J. Reports 2004*, p. 172, para. 88, p. 199, para. 155.

took the view that obligations *erga omnes* are by their nature "the concern of all States" and "[i]n view of the importance of the rights involved, all States can be held to have a legal interest in their protection".[104] It will also be recalled that the Court discussed the nature of obligations under the Genocide Convention in the cases of the *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*[105] and *Armed Activities in the Congo* (New Application, 2002),[106] which discussion has also been reiterated in the recent judgment on the *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Croatia v. Serbia)* (2015).[107]

44. Earlier, in its application in the *Nuclear Tests* cases, Australia asked the Court "to adjudge and declare that … the carrying out of further atmospheric nuclear weapon tests in the South Pacific Ocean is not consistent with applicable rules of international law and to order that the French Republic shall not carry out further such tests".[108] While the Court had previously indicated provisional measures on 22 June 1973, it rendered a final judgment on 20 December 1974, holding that the objective pursued by the applicants, namely, the cessation of the nuclear tests, had been achieved by French declarations not to continue atmospheric tests, and therefore that the Court was not called upon to give a decision on the claims put forward by the applicants.[109] It may be noted that Australia filed this case on the grounds of protecting not only its own legal interests, but also the interests of *other* States, since it considered the nuclear tests of France a violation of the freedom of the high seas. Its memorial stated, inter alia, that: "The sea is not static; its life systems are complex and closely interrelated. It is evident, therefore, that no one can say that pollution — especially pollution involving radioactivity — in one place

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[104] Ibid.

[105] *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro), Preliminary Objections, Judgment of 11 July 1996, I.C.J. Reports 1996*, p. 616, para. 31.

[106] *Armed Activities on the Territory of the Congo (New Application: 2002) (Democratic Republic of the Congo v. Rwanda), Judgment of 3 February 2006, I.C.J. Reports 2006*, pp. 31-32, para. 64.

[107] *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Croatia v. Serbia) Judgment of 3 February 2015, I.C.J. Reports 2015*, paras. 87-88.

[108] Memorial by Australia, Pleadings, *I.C.J. Reports 1973*, pp. 338-343, paras. 462-485.

[109] *Nuclear Tests* case (Australia v. France) (Interim Measures) *I.C.J. Reports 1973*, p. 99; (Jurisdiction), *I.C.J. Reports 1974*, p. 253; (New Zealand v. France) (Interim Measures) *I.C.J. Reports 1973*, p. 135; (Jurisdiction), *I.C.J. Reports 1974*, p. 457. See, H. Thierry, "Les arrêts du 20 décembre 1974 et les relations de la France avec la Cour internationale de justice", *Annuaire français de droit international*, vol. 20 (1974), pp. 286-298; T. M. Franck, "Word-made Law: The Decision of the ICJ in the Nuclear Tests Cases", *American Journal of International Law*, vol. 69 (1975), pp. 612-620; P. Lellouche, "The International Court of Justice: The Nuclear Tests Cases", *Harvard International Law Journal*, vol. 16 (1975), pp. 614-637; E. McWhinney, "International Law-Making and the Judicial Process, The World Court and the French Nuclear Tests Case", *Syracuse Journal of International Law and Commerce*, vol. 3 (1975), pp. 9-46; S. Sur, "Les affaires des essais nucléaires", *Revue general de droit international public*, vol. 79 (1975), pp. 972-1027; Ronald S. J. MacDonald & B. Hough, "The Nuclear Tests Case Revisited", *German Yearbook of International Law*, vol. 20 (1977), pp. 337-357.

The Court stated that "the unilateral statements of the French authorities … made outside the Court, publicly and *erga omnes*", implying that France became bound towards all States. *I.C.J. Reports 1974*, at 269, para. 50. However, this passage is only relevant as an explanation of the legal effect of unilateral declarations and not so much to the legal nature of the obligations in question.

cannot eventually have consequences in another. It would, indeed, be quite out of keeping with the function of the Court to protect by judicial means the interests of the international community, if it were to disregard considerations of this character."[110] On this point, the joint dissenting opinion of Judges Onyeama, Dillard, Jiménez de Aréchaga and Waldock, stated:

> With regard to the right to be free from atmospheric tests, said to be possessed by Australia in common with other States, the question of "legal interest" again appears to us to be part of the general legal merits of the case. If the materials adduced by Australia were to convince the Court of the existence of a general rule of international law, prohibiting atmospheric nuclear tests, the Court would at the same time have to determine what is the precise character and content of that rule and, in particular, whether it confers a right on every State individually to prosecute a claim to secure respect for the rule. In short, the question of "legal interest" cannot be separated from the substantive legal issue of the existence and scope of the alleged rule of customary international law. Although we recognize that the existence of a so-called *actio popularis* in international law is a matter of controversy, the observations of this Court in the *Barcelona Traction, Light and Power Company, Limited* case (*Second Phase, I.C.J. Reports 1970*, at p. 32) suffice to show that the question is one that may be considered as capable of rational legal argument and a proper subject of litigation before this Court.[111]

Thus, the joint dissenting opinion stopped short of determining the consequential impact of the obligation *erga omnes* in substantive law that it may have on the procedural law dimension. This apparent "disconnect" between substantive law and procedural law is the major difficulty inherent in the concept of obligations *erga omnes*.

45. The Institute of International Law (Institut de droit international) confirmed this legal situation when it adopted in 2005 a resolution entitled "Obligations *erga omnes* in international law" (fifth commission, Professor Giorgio Gaja as Rapporteur). Article 1 (a) defines an obligation *erga omnes* as "an obligation under general international law that a State owes in any given case to the international community, in view of its common values and its concern for compliance, so that a breach of that obligation enables all States to take action". Article 1 (b) defines an obligation "*erga omnes partes*" (although the resolution does not employ this terminology but simply uses the same term, *erga omnes*, for both cases) as "an obligation under a multilateral treaty that a State party to the treaty owes in any given case to all the other States parties to the same treaty, in view of their common values and concern for compliance, so that a breach of that obligation enables all these States to take action". With regard to the procedural requirements for giving effect to these obligations, the resolution states that there should be "a jurisdictional link between a State alleged to have committed a breach of an obligation *erga omnes* and a State to which the obligation is owed" in order for the latter State to have "standing to bring a claim to the International Court of Justice or other

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[110] Memorial on Jurisdiction and Admissibility submitted by the Government of Australia, *I.C.J. Pleadings, Nuclear Tests Cases*, vol. 1, pp. 337-338.

[111] *I.C.J. Reports 1974*, p. 312; paras. 116-117. It will be recalled that, in the 1966 judgment of the *South West Africa* case, the Court stated that "the argument [of the applicants, Ethiopia and Liberia] amounts to a plea that the Court should allow the equivalent of an '*actio popularis*' … it is not known to international law as it stands at present. *ICJ Reports 1966*, p. 47, para. 88.

international judicial institutions in relation to a dispute concerning compliance with that obligation" (article 3). For a State to participate in the proceedings before the Court or that institution relating to that obligation, "[s]pecific rules should govern this participation" (article 4), without which no participation is possible.[112] Nonetheless, it is significant that the Institute has clearly confirmed the existence and function of the obligations *erga omnes* in international law as it stands at present.[113]

46. It will be recalled that the Commission dealt with the question of obligations *erga omnes* with regard to draft article 48 on "Invocation of responsibility by a State other than an injured State" in its 2001 articles on responsibility of states for internationally wrongful acts. Draft article 48, paragraph 1, provides that "[a]ny State other than an injured State is entitled to invoke the responsibility of another State … if: (a) the obligation breached is owed to a group of States including that State, and is established for the protection of a collective interest of the group; or (b) the obligation breached is owed to the international community as a whole".[114] Subparagraph (a) refers to obligations *erga omnes partes* owed to a group of States, while subparagraph (b) refers to obligations erga omnes owed to the international community as a whole.[115] With regard to the issue of standing of the non-injured State, the Commission seems to have been neutral in respect of the existence of a collective interest of the group and of the legal nature of the obligation imposed by a multilateral treaty. The answer can be given only through the interpretation of the treaty in question.[116]

47. The question of applicants' standing before international courts based on community interests incorporated in multilateral treaties has been at issue for many years, dating back to the *S.S. Wimbledon* case of the Permanent Court of International Justice (PCIJ) in 1923.[117] The Court found in this case that article 380 of the Treaty of Versailles on the free passage of the Kiel Canal was a provision with a general and peremptory character, and that the four Applicants had a legal

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[112] *Annuaire, Institut de droit international*, 2005; See also the Rapporteur's first report (2002) in *Annuaire*, vol. 71, tome 1, pp. 119-151; second report (2004), Ibid., pp. 189-212; replies and observations of the Commission, ibid., pp. 153-187.

[113] Malgosia Fitzmaurice, "The International Court of Justice and International Environmental Law", in C. J. Tams and J. Sloan eds., *The Development of International Law by International Court of Justice* (Oxford: Oxford University Press, 2013), p. 358.

[114] *Yearbook of the International Law Commission, 2001*, vol. II (Part Two), pp. 126-128.

[115] Ibid. See also James Crawford, *The International Law Commission's Articles on State Responsibility: Introduction, Text and Commentaries* (Cambridge: Cambridge University Press, 2002), pp. 277 (6), 278 (9). The Commentary explains that "obligations protecting a collective interest of the group" under subparagraph (a), "have sometimes been referred to as 'obligations *erga omnes partes*'". As for subparagraph (b), "the articles avoid use of the term 'obligations *erga omnes*', because that term 'conveys less information than the Court's reference … and has sometimes been confused with obligations owed to all the parties to a treaty'". See also, James Crawford, "Responsibility for Breaches of Communitarian Norms: An Appraisal of Article 48 of the ILA Articles on Responsibility of States for Internationally Wrongful Acts", Ulrich Fastenrath, et al., eds., *From Bilateralism to Community Interest* (Essays in Honour of Judge Bruno Simma) (Oxford: Oxford University Press, 2011), pp. 224-240.

[116] Giorgio Gaja, "States Having an Interest in Compliance with the Obligation Breached", in James Crawford, Alain Pellet and Simon Olleson, eds., *The Law of International Responsibility* (Oxford: Oxford University Press, 2010), pp. 959.

[117] *S.S. Wimbledon (France, Italy, Japan and U.K. v. Germany), Judgment of 17 August 1923, P.C.I.J. Series A, No. 1*, pp. 16-20.

interest and therefore standing under the Treaty.[118] The 1966 *South West Africa* judgment, by a narrow majority, rejected the claim of standing as "appertained to the merits"[119] of Ethiopia and Liberia who had claimed, as members of the League of Nations, standing under the relevant Mandate whose purpose was to ensure its proper administration as the "sacred trust" of the community interests shared by the League members. However, the Court of 1966 took the view, distinguishing between the "conduct" and "special interests" provisions in the Mandate, that the right to claim due performance of the mandate did not derive from the mere fact of membership of the League of Nations. Consequently, it concluded that the Applicants did not, in their individual capacity as States, possess "any separate self-contained right which they could assert, independently of, or additionally to, the right of the League, in the pursuit of its collective, institutional activity, in order to require the due performance of the Mandate in discharge of the 'sacred trust'".[120] In contrast, the International Court of Justice has accepted a more liberal view in a recent case, *Obligation to Prosecute or Extradite*,[121] with regard to the standing of the Applicant based on the obligations *erga omnes partes* that is provided for in a multilateral treaty, the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.[122] As to the standing of Belgium in the case, the Court admitted that all the States parties had a common interest in compliance with the obligations to prevent torture and to take measures for prosecution, and "[t]hat common interest implies that the obligations in question are owed by any State party to all the other States parties to the Convention". It therefore considered that "[a]ll the States parties 'have a legal interest' in the protection of the rights involved" and that "[t]hese obligations may be defined as 'obligations *erga omnes partes*' in the sense that each State party has an interest in compliance with them in any given case".[123] The Court concluded that "any State party to the Convention may invoke the responsibility of another State party with a view to ascertaining the alleged failure to comply with its obligations *erga omnes partes* such as those under Article 6, paragraph 2, and Article 7, paragraph 1, of the Convention, and to bring that failure to an end" and that for this purpose, "a special interest" was not

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[118] See James Crawford, "Responsibility for Breaches of Communitarian Norms: An Appraisal of Article 48 of the ILA Articles on Responsibility of States for Internationally Wrongful Acts", Ulrich Fastenrath, et al., eds., *From Bilateralism to Community Interest* (Essays in Honour of Judge Bruno Simma) (Oxford: Oxford University Press, 2011), pp. 224-240. See also Mariko Kawano, "Standing of a State in the Contentious Proceedings of the International Court of Justice: Judicial Proceedings on the Basis of the Consent of the Parties and the Development of International Legal Rules to Protect the Common Interests of the International Community as a Whole or as Established by a Treaty", *Japanese Yearbook of International Law*, vol. 55 (2012), pp. 208f., p. 221-223.

[119] The 1962 Court's judgment affirmed its jurisdiction over the case as well as the standing of the applicants on the basis of Article 7, paragraph 2 of the Mandate. (*South West Africa (Ethiopia v. South Africa), Preliminary Objections, Judgment of 21 December 1962, I.C.J. Reports 1962*, pp. 335-342.) The 1966 judgment, however, considered that their standing could not be recognized as a "matter that appertained to the merits" of the case. (*South West Africa (Ethiopia v. South Africa), Second Phase, Judgment of 18 July 1966, I.C.J. Reports 1966*, p. 18, para. 4.)

[120] Ibid., p. 29, para. 33. See, Kawano, pp. 223-224.

[121] *Questions Relating to the Obligation to Prosecute or Extradite (Belgium v. Senegal) Judgment of 20 July 2012, I.C.J. Reports 2012*, p. 6, para. 1.

[122] Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, United Nations, *Treaty Series*, vol. 1465, p. 85.

[123] *Belgium v. Senegal*, para. 68.

required.[124] Thus, the jurisprudence of the Court confirms that the question of whether or not standing is recognized for obligations *erga omnes partes* depends upon the interpretation of the relevant multilateral treaty.[125] By contrast, in the absence of any procedural rules in general international law for obligations *erga omnes* owed to the international community as a whole, it is difficult to conceive of similar standing for any State to bring a claim before international courts and tribunals.[126]

48. As mentioned earlier, article 192 of the United Nations Convention on the Law of the Sea provides for a general obligation, which could be characterized also as an obligation *erga omnes*, that "States have the obligation to protect and preserve the marine environment". This provision is an essential component of the comprehensive approach in Part XII of the Convention to the protection and preservation of the marine environment.[127] While the basic structure of the Convention on the Law of the Sea is based on the allocation of burden to protect the marine environment in accordance with area-based divisions of the sea (such as territorial waters, contiguous zones, exclusive economic zones and high seas), it is significant that the Convention nonetheless provides for this umbrella clause on the general obligation of States to protect the marine environment. It should be further noted that provisions for a general obligation to protect certain natural resources are found in the previous work of the Commission, including in article 20 of the Convention on the Law of the Non-navigational Uses of International Watercourses and draft article 10 of the draft articles on the law of transboundary aquifers. These provisions were modelled on article 192 of the Convention on the Law of the Sea.[128] The commentary to the Watercourses Convention states that "[i]n view of the general nature of the obligation contained in this article, the Commission was of the view that it should precede the other more specific articles".[129] Given these precedents in the work of the Commission, the Special Rapporteur submits that the same general obligation should be included in the present draft guidelines with regard to the protection of the atmosphere, on the basis of the following State practice and jurisprudence.

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[124] Ibid., para. 69.

[125] In its application instituting proceedings against Japan in the *Whaling in the Antarctic* case, Australia invoked an obligation *erga omnes partes* under the International Convention for the Regulation of Whaling. (Crawford, "Responsibility for Breaches of Communitarian Norms: An Appraisal of Article 48 of the ILC Articles on Responsibility of States for Internationally Wrongful Acts", pp. 235-236.) Japan did not challenge this assertion, and consequently, the Court did not touch on this point in its judgment. It may have been difficult to imagine that the Court would reverse its position on the obligation *erga omnes partes* after the *Obligation to Prosecute or Extradite* case judgment of 2012. Nonetheless, an argument could have been made that the ICRW, unless under an evolutionary interpretation (which the Court rejected), with an entirely different procedural setting as compared with the 1984 Torture Convention, was hardly contemplated in 1946 to grant standing to a non-injured party.

[126] Hugh Thirlway, *The Sources of International Law* (Oxford: Oxford University Press, 2013), pp. 143-153.

[127] Myron H. Nordquist, et al., eds., *United Nations Convention on the Law of the Sea 1982: Commentary*, vol. IV (Dordrecht, Martinus Nijhoff Publishers, 1990), p. 36.

[128] *Yearbook …, 1994*, vol. II, Part Two, p. 118; *Official Records of the General Assembly, Sixty-third session, Supplement No. 10* (A/63/10), p. 55.

[129] Ibid., p. 118 (1).

49. The Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water (1963)[130] provides that the parties, "desiring to put an end to the contamination of man's environment by radioactive substances" (preamble), undertake "to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion … in the atmosphere" (article 1). Although the number of the parties to the Treaty remains at 124 (as of February 2015), subsequent to the announcement of France indicating its intention to terminate atmospheric nuclear tests in 1974, it seems inconceivable that a State today would dare to challenge the partial prohibition of nuclear weapons tests achieved by the Treaty, thereby making the obligation applicable to all States on the basis of customary international law.[131]

50. In the advisory proceedings of the International Court of Justice on the *Legality of the Threat or Use of Nuclear Weapons* case (request by the General Assembly) (1996),[132] it was questioned whether the use of nuclear weapons would lead to damage to the environment, presumably including the global atmospheric environment. The Court recognized "that the environment is under daily threat and that the use of nuclear weapons could constitute a catastrophe for the environment [and] that the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn".[133] The Court pronounced that "[t]he existence of *the general obligation of States* to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment" (emphasis added).[134]

51. Needless to say, protection of the atmosphere relating to global issues such as ozone depletion and climate change is clearly under the general obligation of States.[135] With regard to the question whether transboundary air pollution of a bilateral or regional nature could also be regarded as falling under the general obligation to protect the atmosphere, it has already been pointed out in the first as well as the present report that there exist strong links between transboundary air pollution and the global issues of ozone depletion and climate change, and if the latter categories are to come under the general obligation, then the former should also be regarded as the object of the same obligation. This is reflected in the

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[130] United Nations, *Treaty Series*, vol. 480, p. 44.

[131] Although the customary law status of the Test Ban Treaty was not considered by the Court due to its declaring the cases moot, it was nonetheless pointed out that the question should have been considered. Joint Dissenting Opinion by Judges Onyeama, etc., p. 368. See, Anthony D'Amato, "Legal Aspects of the French Nuclear Tests", *American Journal of International Law*, vol. 61 (1967), pp. 66-67; S. A. Tiewul, "International Law and Nuclear Test Explosions on the High Seas", *Cornell International Law Journal*, vol. 8 (1975), p. 56.

[132] *I.C.J. Reports 1996*, p. 241.

[133] Ibid. para. 29.

[134] Ibid.

[135] The 1985 Ozone Convention provides in art 2 (General obligation), paragraph 1, that "[t]he Parties shall take appropriate measures … against adverse effects … which modify or are likely to modify the ozone layer"; The 1992 UNFCCC provides in art. 3 (Principles), paragraph 1, that "[t]he Parties should protect the climate system for the benefit of present and future generations …", a principle that is presumably applicable to both developed and developing countries. The quoted sentence is qualified by the phrase "in accordance with their common but differentiated responsibilities and respective capabilities". The words "common responsibilities" dictate that all States have the general obligation to protect the climate system, while the degree of "responsibilities" should be "differentiated" according to their "respective capabilities".

transformation of the *sic utere tuo ut alienum non laedas* principle: its application to the relationship between adjacent States has expanded in scope to encompass the broader context of the international community as a whole, as discussed in some detail directly below. The Special Rapporteur intends to refer to *sic utere tuo* in his third report in 2016 as one of the basic principles underpinning the protection of the atmosphere. The description below is intended to give a preliminary account of certain changes in the application of the principle with respect to the general obligations of States.

B. The *sic utere tuo ut alienum non laedas* principle

52. The *sic utere tuo ut alienum non laedas* principle ("use your own property so as not to injure that of another") was originally intended to apply to the relationship with an "adjacent State" sharing a common territorial border. The principle was a corollary to that of the territorial sovereignty and equality of States, according to which a State can exclusively exercise its jurisdiction or control over activities within it,[136] while acknowledging the dictum of Judge Max Huber in the *Island of Palmas* case stating that "the exclusive right" involved in territorial sovereignty "has as corollary a duty: the obligation to protect within the territory the rights of other States".[137] It was initially in the context of a traditional, bilateral type of transboundary air pollution that the principle was applied, for example, in the *Trail Smelter* case. The arbitral tribunal in *Trail Smelter* stated that "under the principles of international law … no State has the right to use … its territory in such a manner as to cause injury by fumes in or to the territory of another, or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence".[138] Naturally, the *sic utere tuo* principle was invoked in that instance in regard to the relations between adjacent States.

53. It will be recalled that, in the 1949 *Corfu Channel* case, the International Court of Justice referred to "certain general and well-recognized principles", reaffirming "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States".[139] A series of orders and judgments in the *Nuclear Tests* cases served as the litmus test for the customary-law status of the *sic utere tuo* principle as applicable to transboundary atmospheric pollution not limited only to adjacent States. In indicating the provisional measures in the case, the Court stated in its order that "the French Government should avoid nuclear tests causing the deposit of radioactive fall-out on Australian territory [and the territory of New Zealand]",[140] covering a broad range of areas. Because the object of the provisional measures was to preserve the *rights* of the Parties, it is considered from the orders

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[136] Jutta Brunnée, "Sic utere tuo ut alienum non laedas", in Rüdiger Wolfrum, ed., *Max Planck Encyclopedia of Public International Law*, vol. IX (Oxford: Oxford University Press, 2012), p. 189, paras. 5-6.

[137] *Island of Palmas* case (Netherlands, USA), 4 April 1928, *Reports of International Arbitral Awards*, vol. II, p. 839.

[138] *Trail Smelter* case (United States, Canada), 11 March 1941, *Reports of International Arbitral Awards*, vol. III, p. 1965.

[139] *Corfu Channel Case, Judgment of April 9th, 1949, I.C.J. Reports 1949*, p. 22.

[140] *Nuclear Tests (Australia* v. *France), Interim Protection, Order of 22 June 1973, I.C.J. Reports 1973*, p. 106; *Nuclear Tests (New Zealand* v. *France), Interim Protection, Order of 22 June 1973, I.C.J. Reports 1973*, p. 142.

of the Court that the basis of the Court's decision was the *sic utere tuo* principle when it acknowledged the *rights* of the Applicants.[141]

54. In its judgment of 20 December 1974 (*Nuclear Tests I*), the International Court of Justice reasoned that the declaration of France indicating its intention not to continue atmospheric nuclear tests rendered moot the claims of Australia and New Zealand. However, this did not mean that the Court did not consider the *sic utere tuo* principle. Rather, as Judge Petrén pointed out in his separate opinion: "As there is no treaty link between Australia and France in the matter of nuclear tests, the Application presupposes the existence of a rule of customary international law whereby States are prohibited from causing, through atmospheric nuclear tests, the deposit of radio-active fall-out on the territory of other States. It is therefore the existence or non-existence of such a customary rule which has to be determined."[142] Judge de Castro answered this question affirmatively in his dissenting opinion, stating that "[t]he principle *sic utere tuo ut alienum non laedas* is a feature of law both ancient and modern" and that "[i]n international law, the duty of each State not to use its territory for acts contrary to the rights of other States might be mentioned".[143] The joint dissenting opinion of Judges Onyeama, Dillard, Jiménez de Aréchaga and Waldock also inferred the existence of the customary rule, stating that "we cannot fail to observe that … the Applicant also rests its case on long-established — indeed elemental — rights, the character of which as *lex lata* is beyond question".[144] In contrast, Judge Gros observed that "[i]n the absence of any rule which can be opposed to the French Government for the purpose of obtaining from the Court a declaration prohibiting the French tests and those alone, the whole case must collapse".[145] Judge Petrén also observed that "one may ask what has been the attitude of the numerous States on whose territory radio-active fall-out from the atmospheric tests of the nuclear Powers has been deposited and continues to be deposited". He asked: "Have they … protested to these Powers, pointing out that their tests were in breach of customary international law?" and concluded that he did "not observe that such has been the case".[146] Because of the conflicting opinions with regard to the existence of customary international law not to cause harm to other States, it can be stated that "[b]y the close of the 1974 proceedings it would be difficult to conclude that the status in international law of the rule … was widely accepted".[147]

55. Two decades later, however, the customary status of the principle was affirmatively recognized in the 1995 *Nuclear Tests II* case. Although the request in which New Zealand protested underground nuclear tests was dismissed, the Court

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[141] The Applicant claimed potential damage not only to "Australian territory" but also to "elsewhere in the southern hemisphere". However, the Court indicated interim measures only "in respect of the deposit of radio-active fall-out *on her territory*", while it did not indicate measures "in respect of other rights". *Nuclear Tests (Australia* v. *France), Interim Protection, Order of 22 June 1973, I.C.J. Reports 1973*, pp. 104-105, paras. 27-31 (emphasis added).

[142] *Nuclear Tests (Australia* v. *France), Judgment, I.C.J. Reports 1974*, p. 304.

[143] Ibid., p. 388, para. 4.

[144] Ibid., p. 367, para. 113.

[145] Ibid., p. 288, para. 21.

[146] Ibid., p. 306.

[147] Philippe Sands, "Pleadings and the Pursuit of International Law: Nuclear Tests II (New Zealand v. France)", in Antony Anghie and Garry Sturgess, eds., *Legal Visions of the 21st Century: Essays in Honour of Judge Christopher Weeramantry* (The Hague: Kluwer Law International, 1998), p. 615.

observed that "the present Order is without prejudice to *the obligations of States to respect and protect the natural environment*, obligations to which both New Zealand and France have in the present instance reaffirmed their commitment" (emphasis added).[148] Although the Court did not clarify in full detail the extent of the obligations, Judge Weeramantry in his dissenting opinion stated that the principle that damage must not be caused to other nations is "a fundamental principle of modern environmental law…well entrenched in international law", and as "a deeply entrenched principle, grounded in common sense, case law, international conventions, and customary international law".[149] Judge Koroma also considered in his dissenting opinion, though cautiously, that: "Under contemporary international law, there is probably a duty not to cause gross or serious damage which can reasonably be avoided, together with a duty not to permit the escape of dangerous substances."[150] Furthermore, Judge Palmer cited the *Nuclear Tests I* case, the *Corfu Channel* case, the *Trail Smelter* case and the *Lake Lanoux* case as "a quartet of cases that offer some protection for the environment through the medium of customary international law", and concluded that "[t]he principles established by these cases have been included in" the *sic utere tuo* principle.[151] In light of these opinions, it follows that "the obligations of States to respect and protect the natural environment" in the majority Order include the *sic utere tuo* principle as customary international law.[152] In addition, the International Court of Justice, in the recent *Pulp Mills* case, also reiterated the key principle as stated in the *Corfu Channel* case, pointing out that "the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory".[153] These cases confirmed the principle not to cause significant harm to the atmospheric environment of *other* States, not limited exclusively to adjacent States, as an established principle of customary international law.

56. While the traditional principle dealt only with transboundary harm to other States in a narrow sense, the development of the principle has resulted in an extension of its territorial scope to include addressing the subject of the global commons per se.[154] Principle 21 of the Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), a reformulation of this principle provides that "States have…the responsibility [devoir] to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or *of areas beyond the limits of national jurisdiction*" (emphasis added). This part of the principle was reiterated in principle 2 of the Rio Declaration on Environment and Development. The areas beyond the jurisdiction and sovereignty of any State, generally referred to as the "global commons", are

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[148] *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand* v. *France) Case, I.C.J. Reports 1995*, p. 306, para. 64.

[149] Ibid., pp. 346-347.

[150] Ibid., p. 378.

[151] Ibid., p. 408.

[152] Philippe Sands, "Pleadings and the Pursuit of International Law: Nuclear Tests II (New Zealand v. France)" in Antony Anghie and Garry Sturgess, eds., *Legal Visions of the 21st Century: Essays in Honour of Judge Christopher Weeramantry* (The Hague: Kluwer Law International, 1998), p. 616.

[153] *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), Judgment, I.C.J. Reports 2010*, p. 55, para. 101.

[154] Xue Hanqin, *Transboundary Damage in International Law* (Cambridge: Cambridge University Press, 2003), p. 191.

assumed to include the high seas, outer space and the global atmosphere. Although the concept of the atmosphere, which is not area-based, does not conform to that of "areas beyond the limits of national jurisdiction", it is nonetheless clear that the atmosphere existing above those areas is now covered by principle 21 of the Stockholm Declaration.[155]

57. It is noteworthy that the *sic utere tuo* principle, when applied to global phenomena such as long-distance, transcontinental air pollution, ozone depletion and climate change, has been confronted with certain difficulties. In such cases, the chain of causation, i.e., the physical link between cause (activity) and effect (harm), is difficult to establish, because of the widespread, long-term and cumulative character of their effects. The adverse effects, because of their complex and synergetic nature, arise from multiple sources, and therefore such adverse effects are not attributable to any one activity. In the global setting, virtually all States are likely to be contributing States as well as victim States. Consequently, even where actual harm has occurred, it is difficult, if not impossible, to identify a single responsible State of origin.[156] The difficulty of establishing the causal link between the wrongful act and the harm suffered has already been acknowledged in the Convention on Long-range Transboundary Air Pollution (1979). Article 1 of that Convention defines long-range transboundary air pollution as pollution "at such a distance that it is not generally possible to distinguish the contribution of individual emission sources or groups of sources". That definition notwithstanding, the Convention does enshrine principle 21 of the Stockholm Declaration in its fifth preambular paragraph as expressing a "common conviction". The Vienna Convention for the Protection of the Ozone Layer and the United Nations Framework Convention on Climate Change recognize the above-mentioned difficulties as well. However, they also expressly incorporate the content of principle 21 of the Stockholm Declaration in their preambles and therefore bolster the case for considering it an integral component of international law.[157]

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[155] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment*, third ed. (Oxford: Oxford University Press, 2009), p. 145.

[156] In contrast, an "injured State" for the purpose of law on state responsibility may be identified even in that case. According to article 42(b)(i) of the Articles on Responsibility of States for Internationally Wrongful Acts, where the obligation breached is owed to the international community as a whole, a specially affected State is considered to be an injured State. According to the Commentary, "[e]ven in cases where the legal effects of an internationally wrongful act extend by implication … to the international community as a whole, the wrongful act may have particular adverse effects on one State or on a small number of States". James Crawford, ed., *The International Law Commission's Articles on State Responsibility: Introduction, Text and Commentaries* (Cambridge: Cambridge University Press, 2002), p. 259, para. (12). An example given in the Commentary is the pollution of the high seas, which constitutes a breach of the customary rule, where this pollution has a particular impact on the territorial sea of a certain State. In this case, "the breach exists in respect of all other States, but among these the coastal State which is particularly affected by the pollution is to be considered as 'specially' affected". Giorgio Gaja, "The Concept of an Injured State", James Crawford, Alain Pellet and Simon Olleson, eds., *The Law of International Responsibility* (Oxford: Oxford University Press, 2010), p. 947. The same can be applied, for example, to the acid rain resulting from the transboundary air pollution or the ozone hole.

[157] Yoshida Osamu, *The International Legal Régime for the Protection of the Stratospheric Ozone Layer* (The Hague: Kluwer Law International, 2001), pp. 62-67; Malgosia Fitzmaurice, "Responsibility and Climate Change", *German Yearbook of International Law*, vol. 53 (2010), pp. 117-118.

58. In fact, it was confirmed in the International Court of Justice advisory opinion on *Nuclear Weapons* that the provisions of principle 21 of the Stockholm Declaration and principle 2 of the Rio Declaration are "now part of the corpus of international law relating to the environment".[158] In the *Gabčikovo-Nagymaros Project* case, the Court reaffirmed that phrase, recognizing further that "it has recently had occasion to stress…the great significance that it attaches to respect for the environment, not only for States *but also for the whole of mankind*" (emphasis added).[159] The Court also cited that phrase in the judgment in the *Pulp Mills* case.[160] In addition, in the *Iron Rhine Railway* case, the tribunal stated: "Environmental law…require[s] that where development may cause significant harm to the environment there is a duty to prevent, or at least mitigate, such harm. This duty … has now become a principle of general international law."[161]

59. The following draft guideline is therefore proposed:

Draft guideline 4: General obligation of States to protect the atmosphere

States have the obligation to protect the atmosphere.

VI. International cooperation

A. Development of the principle of cooperation in international law

60. Modern international law is often characterized as being a "law of cooperation" as opposed to the "law of coexistence" (a law of reciprocity and/or law of coordination) of traditional international law.[162] This is in large part a reflection of structural change in the present-day world whereby the principle of cooperation has become recognized as a legal obligation rather than as merely a moral duty.

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[158] *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996*, pp. 241-242, para. 29.

[159] *Gabčikovo-Nagymaros Project (Hungary/Slovakia), Judgment, I.C.J. Reports 1997*, p. 41, para. 53.

[160] *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010*, p. 78, para. 193.

[161] Award in the Arbitration regarding the *Iron Rhine* ("Ijzeren Rijn") Railway between the Kingdom of Belgium and the Kingdom of the Netherlands, decision of 24 May 2005, *Report of International Arbitral Awards*, vol. XXVII, pp. 66-67, para. 59.

It may have been premature to say that Principle 21 was only a starting point and that the principle had not yet entered into customary international law at the time of the adoption of the Stockholm Declaration in 1972. However, subsequent developments of jurisprudence, such as the 1995 *Nuclear Tests II* case, the 1996 *Nuclear Weapons* case, the 1997 *Gabčikovo-Nagymaros Project* case and the 2010 *Pulp Mills* case, confirm the customary status of the principle, consolidated by State practice and *opinio juris* as well; see Birnie, Boyle and Redgwell, *International Law and the Environment*, p. 143; Paolo Galizzi, "Air, Atmosphere and Climate Change", in *Routledge Handbook of International Environmental Law*, Shawkat Alam, *et al*., eds. (London: Routledge, 2014), pp. 333-347, p. 337.

[162] W. Friedmann, *The Changing Structure of International Law* (London: Stevens & Sons, 1964), pp. 60-71; Charles Leben, "The Changing Structure of International Law Revisited by Way of Introduction", *European Journal of International Law,* vol. 3 (1997), pp. 399-408. See also, Jost Delbrück, "The International Obligation to Cooperate — An Empty Shell or a Hard Law Principle of International Law? — A Critical Look at a Much Debated Paradigm of Modern International Law", H. P. Hestermeyer, *et al.*, eds., *Coexistence, Cooperation and Solidarity* (Liber Amicorum Rüdiger Wolfrum), vol.1 (Leiden: Martinus Njihoff, 2012), pp. 3-16.

Many multilateral treaties today provide for international cooperation of varying content and legal character. The international cooperation provided under these treaties is often premised on specific obligations and designed to induce compliance therewith.[163] Indeed, the concept of international cooperation is now built to a large extent upon the notion of the "common interests" of the "international community as a whole", rather than on the "arithmetic aggregate" of bilateral collaborative relations in the traditional "international society".[164]

61. One of the main purposes of the United Nations, as provided in Article 1, paragraph 3, of the Charter of the United Nations is "[t]o achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character". Further, Article 13, paragraph 1 (b), provides that the General Assembly "shall initiate studies and make recommendations for the purpose of promoting international cooperation in the economic, social, cultural, educational and health fields". Article 56 in Chapter IX of the Charter, entitled "International economic and social cooperation", provides that "[a]ll Members pledge themselves to take joint and separate action in cooperation with the Organization". Important as it was that the Charter provide for the duty to cooperate, this entailed merely a "pledge" on the part of Member States, which was limited to "action in cooperation with the Organization". The nature of the duty was ambiguous: was it a legal or merely a moral duty? Moreover, this duty would be assumed only by States Members of the United Nations and not by all States. The focus was specifically on Member States "in cooperation with the Organization" rather than on other States in their reciprocal relations.[165] It was the 1970 Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States in

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[163] Beyerlin, *et al.* distinguish between two types of treaties in relation to multilateral environmental agreements: one being a category of "result-oriented treaties" and the second consisting of "action-oriented treaties". The former includes the 1987 Montreal Protocol and the 1997 Kyoto Protocol, while the latter includes the 1946 Whaling Convention, the 1973 Convention on International Trade of Endangered Species (CITES), 1989 Basel Convention and 1992 Biodiversity Convention and the 2003 Cartagena Protocol. It is pointed out that the instruments of the latter category have only ambiguous provisions on the methods for achieving their objectives, often making it difficult to assess how far the stated objectives have been achieved. Layer Ulrich Beyerlin, Peter Tobias Stoll, Rüdiger Wolfrum, *Ensuring Compliance with Multilateral Environmental Agreements: A Dialogue Between Practitioners and Academia* (Studies on the Law of Treaties, vol. II) (Leiden: Brill, 2006), pp. 3-4. Regarding the duty to cooperate in article 100 of the UNCLOS which provides for the obligation of conduct and not of result, see *e.g.* Yaron Gottlieb, "Combatting Maritime Piracy: Inter-Disciplinary Cooperation and Information Sharing", *Case Western Reserve Journal of International Law*, vol. 46 (2013), p. 312.

[164] Naoya Okuwaki, "On Compliance with the Obligation to Cooperate: New Developments of 'International Law for Cooperation'", in Jun'ichi Eto, ed., *Aspects of International Law Studies* (Festschrift for Shinya Murase) (Tokyo: Shinzansha, 2015), pp. 5-46; pp. 16-17 (in Japanese).

[165] Rüdiger Wolfrum, "Article 56", in Bruno Simma, ed., *The Charter of the United Nations: A Commentary*, 2nd ed., Vol. 2 (Oxford: Oxford University Press, 2002,) p. 942, para. 3 and p . 943, para. 7. The Commentary emphasizes the shortcoming of "the limited bearing of Art. 56 as far as the obligation of member States is concerned". According to the Commentary, "Article 56 not only requires co-operation among the member States but between the member States and the Organization." See also, Tobias Stoll, "Article 56", in Bruno Simma, Daniel-Erasmus Khan, Georg Nolte and Andreas Paulus, eds., *The Charter of the United Nations: A Commentary*, third edition (Oxford: Oxford University Press, 2012,) p. 1604. para. 3 and p. 1605, para. 10. With regard to Article 55 of the Charter, see Tobias Stoll, "Article 55 (a) and (b)", in ibid., pp. 1551-1554, paras. 63-74.

accordance with the Charter of the United Nations, approved by the Assembly in 1970, that expanded the scope of cooperation to include all States and in their relations with one another, providing, under its fourth principle, that States have the duty "to cooperate with one another in accordance with the Charter".[166]

62. The Charter of the United Nations did not include any specific provisions on environmental protection, nor did the Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States make any reference to cooperation on environmental protection.[167] However, Article 1, paragraph 3, of the Charter, as cited above, does provide the basis for the competence of the United Nations with respect to dealing with problems of environmental protection. It was in the late 1960s that the United Nations began addressing environmental issues, through interpretation of the purposes of the Organization enumerated in Article 1, paragraph 3, as including the promotion of international cooperation for protection of the environment.[168] Thus, "the absence of any explicit mention of the environment in the Declaration on Principles of Friendly Relations should not be seen as implying that the principles of … cooperation it sets out have no importance in an environmental context".[169]

63. By its resolution 2398 (XXIII) of 3 December 1968, the General Assembly decided to convene in 1972 the United Nations Conference on the Human Environment which proclaimed, on 16 June 1972, the Declaration of the United Nations Conference on the Human Environment. Principle 24 of the Declaration declared:

> International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big or small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.

Although principle 24 did not elaborate detailed rules on international cooperation, the Assembly, in its resolution 2995 (XXVII) of 15 December 1972, entitled

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[166] Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States in accordance with the Charter of the United Nations, Assembly resolution 2625 (XXV), 24 October 1970. See, Bogdan Babović, "The Duty of States to Cooperate with One Another in Accordance with the Charter", Milan Šahović (ed.), *Principles of International Law Concerning Friendly Relations and Cooperation* (1972), pp. 277-321, Piet-Hein Houben, "Principles of International Law Concerning Friendly Relations and Cooperation among States", *American Journal of International Law*, vol. 61 (1967), pp. 720-723, E. McWhinney, "The 'New' Countries and the 'New' International Law: The United Nations' Special Conference on Friendly Relations and Co-operation among States", *American Journal International Law*, vol. 60 (1966), pp. 1-33.

[167] It was pointed out: "the declaration's emphasis on economic sovereignty and the promotion of economic growth suggests that environmental matters were not a priority concern of the drafters of this resolution". Alan E. Boyle, "The Principle of Co-operation: The Environment", in Vaughan Lowe and Colin Warbrick, eds., *The United Nations and the Principles of International Law: Essays in Memory of Michael Akehurst* (London: Routledge, 1994), p. 120.

[168] Philippe Sands and Jacqueline Peel, with Adriana Fabra and Ruth MacKenzie, *Principles of International Environmental Law*, third edition (Cambridge: Cambridge University Press, 2012), pp, 27, 56-57.

[169] Boyle (The Principle of Co-operation), p. 121.

"Cooperation between States in the field of the environment", recognized that cooperation between States in the field of the environment would be effectively achieved if States exchanged information effectively.[170] Twenty years later, in June 1992, the Rio Declaration on Environment and Development was proclaimed by the United Nations Conference on Environment and Development. Principle 27 of the Rio Declaration stressed that "States and people [should] cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in [the] Declaration and in the further development of international law in the field of sustainable development". The principles of the Declaration have evolved into more detailed rules in subsequent treaties.

B. Treaties and other instruments

Global treaties

64. International cooperation is among the core provisions of global environmental treaties. The Vienna Convention for the Protection of the Ozone Layer (1985) provides in its preamble that the Parties to this Convention are "[*a*]*ware* that measures to protect the ozone layer from modifications due to human activities require international cooperation and action, and should be based on relevant scientific and technical considerations"; and in paragraph 1 of article 4, on co-operation in the legal, scientific and technical fields, the Convention provides that: "[t]he Parties shall facilitate and encourage the exchange of scientific, technical, socioeconomic, commercial and legal information relevant to this Convention as further elaborated in annex II" and that "[s]uch information shall be supplied to bodies agreed upon by the Parties". Annex II of the Convention sets out a detailed list of the types of information to be exchanged, , which should be useful for the present guidelines.[171] Paragraph 2 of article 4 provides for cooperation in the

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[170] General Assembly Resolution 2995 (XXVII) (1972). Paragraph 2 of the resolution "[r]ecognized that co-operation between States in the field of the environment, including co-operation towards the implementation of principles 21 and 22 of the Declaration of the United Nations Conference on the Human Environment, will be effectively achieved if official and public knowledge is provided of the technical data relating to the work to be carried out by States within their national jurisdiction, with a view to avoiding significant harm that may occur in the environment of the adjacent area". Thus, the linkages among the duty to supply information, the duty of co-operation between the parties and the duty of prevention, recognized in the *Pulp Mills* case judgment (see para. 58), had been affirmed by the General Assembly already in 1970s.

[171] Annex II (Information Exchange) of the Ozone Convention provides as follows:

1. The Parties to the Convention recognize that the collection and sharing of information is an important means of implementing the objectives of this Convention and of assuring that any actions that may be taken are appropriate and equitable. Therefore, Parties shall exchange scientific, technical, socio-economic, business, commercial and legal information.

2. The Parties to the Convention, in deciding what information is to be collected and exchanged, should take into account the usefulness of the information and the costs of obtaining it. The Parties further recognize that co-operation under this annex has to be consistent with national laws, regulations and practices regarding patents, trade secrets, and protection of confidential and proprietary information.

3. *Scientific information*

This includes information on: (a) Planned and ongoing research, both governmental and private, to facilitate the co-ordination of research programmes so as to make the most effective use of available national and international resources; (b) The emission data needed for research;

technical fields, such as through the transfer of technology, taking into account the needs of developing countries.

65. The preamble to the United Nations Framework Convention on Climate Change (1992) acknowledges that "the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response" and reaffirms "the principle of sovereignty of States in international cooperation to address climate change". Article 4 (Commitments), paragraph 1, provides that all Parties should:

"(e) Cooperate in preparing for adaptation to the impacts of climate change;

"(g) Promote and cooperate in scientific, technological, technical, socioeconomic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;

"(h) Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socioeconomic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies."[172]

Regional agreements

66. International cooperation is provided for in regional instruments in the field of transboundary air pollution, which include the following: (a) the Final Act of the Conference on Security and Cooperation in Europe (Helsinki, 1975), which states that "[t]he participating States are resolved that cooperation in the field of the environment will be implemented in particular through … exchanges of scientific and technical information, documentation and research results"; and (b) the Convention on Long-range Transboundary Air Pollution (1979), whose parties

(c) Scientific results published in peer-reviewed literature on the understanding of the physics and chemistry of the Earth's atmosphere and of its susceptibility to change, in particular on the state of the ozone layer and effects on human health, environment and climate which would result from changes on all time-scales in either the total column content or the vertical distribution of ozone; (d) The assessment of research results and the recommendation for future research.

4. *Technical information*

This includes information on: (a) The availability and cost of chemical substitutes and of alternative technologies to reduce the emissions of ozone-modifying substances and related planned and ongoing research; (b) The limitations and any risks involved in using chemical or other substitutes and alternative technologies.

5. *Socio-economic and commercial information on the substances referred to in annex I*

This includes information on: (a) Production and production capacity; (b) Use and use patterns; (c) Imports/exports; (d) The costs, risks and benefits of human activities which may indirectly modify the ozone layer and of the impacts of regulatory actions taken or being considered to control these activities.

6. *Legal information*

This includes information on: (a) National laws, administrative measures and legal research relevant to the protection of the ozone layer; (b) International agreements, including bilateral agreements, relevant to the protection of the ozone layer; (c) Methods and terms of licensing and availability of patents relevant to the protection of the ozone layer.

[172] Paragraph (c) also provides for cooperation on transfer of technology.

thereto, recalling in the preamble the Final Act of the Conference on Security and Cooperation in Europe, express their cognizance "of the references in the chapter on environment of the Final Act of the Conference on Security and Cooperation in Europe calling for cooperation to control air pollution and its effects, including long-range transport of air pollutants, and to the development through international cooperation of an extensive programme for the monitoring and evaluation of long-range transport of air pollutants … [and] affirm their willingness to reinforce active international cooperation to develop appropriate national policies and by means of exchange of information, consultation, research and monitoring, to coordinate national action for combating air pollution including long-range transboundary air pollution". Article 4 of the Convention provides that "[t]he Contracting Parties shall exchange information on and review their policies, scientific activities and technical measures aimed at combating, as far as possible, the discharge of air pollutants which may have adverse effects, thereby contributing to the reduction of air pollution including long-range transboundary air pollution".[173]

67. The Eastern Africa Regional Framework Agreement on Air Pollution (Nairobi Agreement, 2008)[174] and the West and Central Africa Regional Framework Agreement on Air Pollution (Abidjan Agreement, 2009)[175] have identical provisions on international cooperation. They agree to the following actions as constituting forms of regional cooperation: "1.2 Consider the synergies and co-benefits of taking joint measures against the emission of air pollutants and greenhouse gases; 1.4 Promote the exchange of educational and research information on air-quality management; 1.5 Promote regional cooperation to strengthen the regulatory institutions …" The Association of Southeast Asian Nations (ASEAN) Agreement on the Conservation of Nature and Natural Resources (1985)[176] provides in article 9 (Air) that "[t]he Contracting Parties shall, in view of the role of air in the functioning of natural ecosystems, endeavour to take all appropriate measures towards air-quality management compatible with sustainable development". Its article 18 (Cooperative activities) provides that: "1. The Contracting Parties shall cooperate together and with the competent international organizations, with a view to coordinating their activities in the field of conservation of nature and management of natural resources and assisting each other in fulfilling their obligations under [the] Agreement. (2) To that effect, they shall endeavour (b) to the greatest extent possible, to coordinate their research activities; (d) to exchange appropriate scientific and technical data, information and experience, on a regular basis. (3) In applying the principles of cooperation and coordination set forth above,

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[173] Cees Flinterman, Barbara Kwiatkowska and Johan G. Lammers, eds., *Transboundary Air Pollution: International Legal Aspects of the Co-operation of States* (Dordrecht: Martinus Nijhoff Publishers, 1986).

[174] 11 countries — Burundi, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda — agreed this framework agreement. http://www.unep.org/urban_environment/PDFs/EABAQ2008-AirPollutionAgreement.pdf.

[175] This agreement documents the recommendations resulting from the West and Central Africa Sub-regional Workshop on Better Air Quality. 21 countries — Côte d'Ivoire, Angola, Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Congo Brazzaville, Democratic Republic of Congo, Equatorial Guinea, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo agreed to this recommendation. http://www.unep.org/urban_environment/PDFs/BAQ09_AgreementEn.Pdf.

[176] Not yet entered into force. The Agreement shall enter into force after the deposit of the sixth instrument of ratification. Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand signed the Agreement in 1985, and Myanmar acceded in 1997.

the Contracting Parties shall forward to the Secretariat (b) Information, including reports and publications of a scientific, administrative or legal nature, and, in particular, information on (i) measures taken by the Parties in pursuance of the provisions of [the] Agreement".

C. Previous work of the Commission

68. Provisions on international cooperation in the previous work of the Commission should also be noted. Article 8 (General obligation to cooperate) of the Convention on the Law of the Non-navigational Uses of International Watercourses (1994/1997),[177] provides that: "[w]atercourse States shall cooperate on the basis of sovereign equality, territorial integrity and mutual benefit in order to attain optimal utilization and adequate protection of an international watercourse". Article 9 (Regular exchange of data and information) provides as follows:

> "1. Pursuant to Article 8, watercourse States shall on a regular basis exchange readily available data and information on the condition of the watercourse, in particular that of a hydrological, meteorological, hydrogeological and ecological nature … as well as related forecasts.
>
> "2. If a watercourse State is requested by another watercourse State to provide data or information that is not readily available, it shall employ its best efforts to comply with the request but may condition its compliance upon payment by the requesting State of the reasonable costs of collecting and, where appropriate, processing such data or information.
>
> "3. Watercourse States shall employ their best efforts to collect and, where appropriate, to process data and information in a manner which facilitates its utilization by the other watercourse States to which it is communicated."

69. The draft articles on prevention of transboundary harm from hazardous activities (2001)[178] provide (in draft article 4 (Cooperation)) that "States concerned shall cooperate in good faith and, as necessary, seek the assistance of one or more competent international organizations in preventing significant transboundary harm or at any event in minimizing the risk thereof". It is stated in the commentary to this article that "[t]he principle of cooperation between States is essential in designing and implementing effective policies to prevent significant transboundary harm or at any event to minimize the risk thereof", and that "[p]rinciple 24 of the Stockholm Declaration and principle 7 of the Rio Declaration recognize cooperation as an essential element in any effective planning for the protection of the environment".[179]

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[177] *Yearbook ... 1994*, vol. II, Part Two, pp. 105, 107.

[178] *Yearbook ... 2001*, vol. II, Part Two, p. 155.

[179] Ibid. The initial intention of Mr. Quentin Quentin-Baxter, the first Special Rapporteur, appointed in 1978, for the topic on "international liability for the injurious consequences arising out of acts not prohibited by international law" was to establish a State "liability" regime in the realm of "lawfulness", in contrast to the regime of State "responsibility" in the realm of "wrongfulness". However, the focus of the project gradually shifted to "prevention" of transboundary harm and to the "cooperation" for prevention as the Special Rapporteur was succeeded by Mr. Julio Barbosa in 1985 and Mr. Pemmaraju Sreenivasa Rao in 1997. See C. O'Keefe, "Transboundary Pollution and Strict Liability Issue: The Work of the International Law Commission on the Topic of International Liability for Injurious Consequences Arising out

70. The draft articles on the law of transboundary aquifers (2008)[180] provide in draft article 7 (General obligation to cooperate) that: "1. Aquifer States shall cooperate on the basis of sovereign equality, territorial integrity, sustainable development, mutual benefit and good faith in order to attain equitable and reasonable utilization and appropriate protection of their transboundary aquifers or aquifer systems. 2. For the purpose of paragraph 1, aquifer States should establish joint mechanisms of cooperation." The second sentence of paragraph 4 of draft article 17 (Emergency situations) reads: "Cooperation may include coordination of international emergency actions and communications, making available emergency response personnel, emergency response equipment and supplies, scientific and technical expertise and humanitarian assistance."

71. The draft articles on the protection of persons in the event of disasters (provisionally adopted on first reading in 2014) provide (in draft article 8 (Duty to cooperate)) that "in accordance with the present draft articles, States shall, as appropriate, cooperate among themselves, and with the United Nations and other competent intergovernmental organizations, the International Federation of Red Cross and Red Crescent Societies and the International Committee of the Red Cross, and with relevant non-governmental organizations". With regard to the forms of cooperation, they provide (in draft article 9) that "[f]or the purposes of the present draft articles, cooperation includes humanitarian assistance, coordination of international relief actions and communications, and making available relief personnel, equipment and goods, and scientific, medical and technical resources". Further, draft article 10 (Cooperation for disaster risk reduction) provides that "[c]ooperation shall extend to the taking of measures intended to reduce the risk of disasters".

D. Judicial decisions

72. It may be appropriate here to briefly review how the International Court of Justice regarded the obligation of international cooperation in its recent cases: In the judgment in the 2010 *Pulp Mills* case, the Court emphasized linkages between the obligation to inform CARU (an international organization), cooperation between the parties and the obligation of prevention. The Court noted that, "it is by cooperating that the States concerned can jointly manage the risks of damage to the environment…so as to prevent the damage in question".[181] When discussing the precise content of the parties' obligation to cooperate, the Court referred to the obligation to inform CARU which "allows for the initiation of cooperation between the Parties which is necessary in order to fulfil the obligation of prevention".[182] In addition, the Court stated that "[t]hese obligations [the procedural obligations of informing, notifying and negotiating] are all the more vital when a shared resource

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of Acts Not Prohibited by International Law", *Denver Journal of International law and Policy*, vol. 18 145 (1989-90), p. 145, pp. 178f.; J. Barbosa, "International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law and Protection of the Environment", Hague Academy of International Law, *Recueil des cours*, Vol. 247 (1994), pp. 291-406.

[180] *General Assembly Official Records Sixty-third Session Supplement No. 10* (A/63/10), p. 48.

[181] *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), Judgment, I.C.J. Reports 2010*, p. 49, para. 77.

[182] Ibid., p. 56, para. 102.

is at issue…which can only be protected through close and continuous cooperation between the riparian States".[183] According to the Court, "the obligation to notify is intended to create the conditions for successful cooperation between the parties, enabling them to assess the plan's impact on the river on the basis of the fullest possible information and, if necessary, to negotiate the adjustments needed to avoid the potential damage that it might cause".[184]

73. As compared with those of the *Pulp Mills* case, the problems surrounding the obligation to cooperate became more complicated in the 2014 *Whaling in the Antarctic (Australia v. Japan, New Zealand Intervening)* case.[185] It was concerned with the obligation of a State party (in this case, Japan) to cooperate with the International Whaling Commission (IWC). New Zealand suggested some grounds for Japan's obligation to cooperate with IWC and the Scientific Committee in its written observation, arguing that it could be derived either from article 65 of the United Nations Convention on the Law of the Sea,[186] from the interpretation of paragraph 30 of the Schedule,[187] or from the advisory opinion of the International Court of Justice in the 1980 case of the *Interpretation of the Agreement between the WHO and Egypt*.[188] The Court referred to the "duty to co-operate with the IWC and the Scientific Committee"[189] and the consequential "obligation to give due regard to such [IWC's] recommendations",[190] but it did not elaborate on these points in its analyses of the relevant issues. It seems that the Court simply deduced the obligation to cooperate from the general duty of the States Parties to cooperate with treaty bodies.[191] To understand its position meaningfully, it could be considered that the Court based its holding, at least tacitly, on the same line of reasoning as that of the above *WHO-Egypt* advisory opinion, according to which a "special legal regime of mutual rights and obligations" has been created based on "the legal relationship between Egypt and the Organization…the very essence of which is a body of mutual obligations of cooperation and good faith".[192] This position of the Court may be regarded as consonant with the "trend" of the development of international law,[193] although whether the 1946 International Convention for the Regulation of Whaling could be construed as an evolutionary instrument that would justify such a holding is naturally quite a different matter.[194]

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[183] Ibid., p. 51, para. 81.

[184] Ibid., p. 58, para. 113.

[185] *Whaling in the Antarctic (Australia v. Japan, New Zealand Intervening), I.C.J. Reports 2014*.

[186] Written Observation of New Zealand, paras. 94-97. It should be noted, however, that Article 65 of UNCLOS obliges States to cooperate with each other "through international organizations" and not *with* them.

[187] Written Observation of New Zealand, para. 95; See also Judge *ad hoc* Charlesworth, separate opinion, paras. 13-14.

[188] *Interpretation of the Agreement between WHO and Egypt*, *I.C.J. Reports 1980*, p. 73.

[189] Paras. 83 and 240 of the *Whaling* judgment.

[190] Ibid., paras. 83, 137.

[191] Ibid., para. 83.

[192] *WHO-Egypt* advisory opinion, 1980, para. 43.

[193] Shinya Murase, "Legal Aspects of International Environmental Regimes: Ensuring Compliance with Treaty Obligations", in S. Murase, *International Lawmaking: Sources of International Law*, Tokyo: Toshindo, 2002, pp. 343-364 (in Japanese); ibid. (translated by Yihe Qin) (Beijing: Chinese People's Public Safety University Press, 2012), pp. 172-182 (in Chinese).

[194] While the Court squarely rejected the idea of interpretation by subsequent agreement or subsequent practice (*Whaling* case judgment, para. 83), not to mention "evolutionary interpretation" of the Convention, the Court nevertheless seems to have contradicted itself by

E. The principle of good faith

74. Before concluding this section on the obligation of States to cooperate, it is necessary to ascertain the nature of the principle of "good faith" which lies at the heart of the international law of cooperation.[195] Today, good faith is no longer a merely abstract principle or one of a wholly ethical nature.[196] As is well-known, in the 1973 *Nuclear Tests* cases, the International Court of Justice affirmed that "[o]ne of the basic principles governing the creation and performance of legal obligations, whatever their source, is the principle of good faith" and that "[t]rust and confidence are inherent in international cooperation, in particular in an age when this cooperation in many fields is becoming increasingly essential".[197] The Court reaffirmed this in the *Pulp Mills* case, stating that "the mechanism for co-operation between States is governed by the principle of good faith".[198] On the level of implementation of international rules, the Court specified that customary international law, as reflected in article 26 of the Vienna Convention on the Law of Treaties — i.e., the principle of *pacta sunt servanda* — "applies to all obligations established by a treaty, including procedural obligations which are essential to cooperation between States".[199]

75. The concept of good faith has absorbed concrete legal content through the accumulation of relevant State practice and the jurisprudence of international courts and tribunals, demonstrating its essential role at each stage of international law's life cycle:[200] first, in the creation of international rights and obligations,[201] second, on the level of interpretation and application of international rules,[202] and third, in

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introducing the idea of "evolutionary instrument" to which it gave, to use the words of Judge Hanqin Xue, a "sweeping effect". (Separate opinion, para. 12).

[195] It was noted by Hugo Grotius that "[f]or not only is every State sustained by good faith, [....], but also that greater society of States. As Aristotle said, if good faith has been taken away, all intercourse among men ceases to exist." Hugo Grotius, *De jure belli ac pacis libri tres*, vol. 2, Translation Book III by Francis W. Kelsey (Oxford: Clarendon Press, 1925), Chapter XXV, p. 860. See also J. F. O'Connor, *Good Faith in International Law* (Dartmouth: Dartmouth Publishing Co. Ltd., 1991), pp. 56 ff., 81-106; Shinya Murase, "Function of the Principle of Good Faith in International Disputes: States Parties Claims under International Regimes", in S. Murase, *International Lawmaking and the Sources of International Law* (Tokyo: Toshindo, 2002), pp. 569-595 (in Japanese); ibid. (translated by Yihe Qin) (Beijing: Chinese People's Public Safety University Press, 2012), pp. 267-279 (in Chinese).

[196] See Alfred Verdross, *Völkerrecht* (Vienna: Springer-Verlag, 1963), pp. 131-132; Alfred Verdross and Bruno Simma, *Universelles Völkerrecht: Theorie und Praxis*, 3. Aufl. (Vienna: Springer-Verlag, 1984), pp. 46-48.

[197] *I.C.J. Reports 1974*, para. 46, p. 268. See also *Border and Transborder Armed Actions* case, *I.C.J. Reports 1988*, para. 94, p. 105.

[198] *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), Judgment, I.C.J. Reports 2010*, p. 67, para. 145.

[199] Ibid.

[200] See Shinya Murase, *International Law: An Integrative Perspective on Transboundary Issues* (Tokyo: Sophia University Press, 2011), pp. 68, 112-113.

[201] See the *Nuclear Tests* cases, *I.C.J. Reports 1973*, p. 473, para. 49, stating that "Just as the very rule of *pacta sunt servanda* in the law of treaties is based on good faith, so also is the binding character of an international obligation assumed by unilateral declaration."

[202] The function of good faith in interpretation and application is well known as is provided for in article 31, paragraph 1, of the Vienna Convention of the Law of Treaties. See, in detail, Shabtai Rosenne, *Developments in the Law of Treaties 1945-1986* (Cambridge: Cambridge University Press, 1989), pp. 137 ff.; Ian Sinclair, *The Vienna Convention of the Law of Treaties*, Second

implementation thereof by States.[203] Thus, the principle of good faith is expected to contribute to guaranteeing the "coherence and unity" of legal order in an international community composed of States with diverse values and conflicting interests.[204]

76. As the international community becomes increasingly integrated on a functional basis, to the extent of building an international regime for specific objectives, States parties to a treaty are required to fulfil their obligation to cooperate in good faith with other States parties and relevant international organizations. Specifically, as early as 1980, when the International Court of Justice rendered its advisory opinion on the *Interpretation of the Agreement of 25 March 1951 between the WHO and Egypt* that "the paramount consideration…in every case must be [the] clear obligation to cooperate in good faith to promote the objectives and purposes of [the regime]",[205] the good faith obligation was present as a consideration. While it may still be premature in the field of the protection of the atmosphere to envisage a strong international regime in which a State party is required to fulfil such an obligation as an "agent" of the regime, it appears that the international community is moving gradually in the direction of good faith in this and other fields.[206] Based on consideration of all of the above factors, the conclusion can be drawn that the principle of good faith is regarded as one of the basic principles of modern international law, and that its intrinsic and underlying value as the basis for international cooperation is essential.

77. On the basis of the foregoing, the following draft guideline is proposed:

Draft guideline 5: International cooperation

(a) **States have the obligation to cooperate with each other and with relevant international organizations in good faith for the protection of the atmosphere.**

Edition (Manchester: Manchester University Press, 1984), pp. 119-120; Richard K. Gardiner, *Treaty Interpretation* (Oxford: Oxford University Press, 2008), pp. 147-161.

[203] On the level of implementation, a typical example of a good faith provision is Article 300 of the United Nations Law of the Sea Convention. There are three dimensions to be considered: (1) negotiation and consultation in good faith (e.g. judgment of the *North Sea Continental Shelf* case, *I.C.J. Reports 1969*, pp. 46-47, para. 85; *Fisheries Jurisdiction* case, *I.C.J. Reports 1974*, p. 33, para. 78, p. 202, para. 70; *Gulf of Maine* case, *I.C.J. Reports 1984*, p. 299, para. 112); (2) exclusion of the abuse of rights (cf. the case concerning the Constitution of the Maritime Safety Committee of the Inter-Governmental Maritime Consultative Organization, *I.C.J. Reports 1960*, p. 10); and (3) maintenance of a régime in good faith (e.g. Interpretation of the Agreement of 25 March 1951 between the WHO and Egypt, Advisory Opinion, *I.C.J. Reports 1980*, at p. 96, para. 41).

[204] Robert Kolb, *La bonne foi en droit international public: contribution à l'étude des principes généraux de droit* (Paris: Presses universitaires de France, 2000), pp. 685-686. Cf. Georg Schwarzenberger, in his *The Dynamics of International Law* (Worcester: Professional Books Ltd., 1976), observed: "the rules on good faith fulfill a relativizing function. They transform absolute legal rights into relative rights behind quasi-legal and quasi-logical façades, they temper the exercise of judicial discretion and contribute to an organic growth of the rules of international law. More clearly than any other rules, those on the interpretation of treaties and international responsibility bear witness to this dynamic function of good faith in the system of international law." (p. 71).

[205] *WHO-Egypt* advisory opinion, para. 49.

[206] Shinya Murase (International Lawmaking, in Japanese), p. 575; *Ditto* (in Chinese), p. 272.

(b) **States are encouraged to cooperate in further enhancing scientific knowledge relating to the causes and impacts of atmospheric degradation. Cooperation could include exchange of information and joint monitoring.**

VII. Conclusion

78. In this second report, the Special Rapporteur has aimed at presenting the general draft guidelines on the definition and scope of the project as well as three draft guidelines on the basic principles for the protection of the atmosphere. (All draft guidelines are reproduced in the annex below.) These three basic principles — common concern of humankind, general obligation of States, and international cooperation — are fundamentally interconnected, forming a trinity for the protection of the atmosphere. Further, they are well established in State practice. As the Special Rapporteur stressed in his first report, and as Commission members have emphasized, the basic role of the Commission is to analyse the problems of special regimes such as international environmental law from the perspective of general international law.[207] In his third, 2016 report, the Special Rapporteur will continue to use the same approach in proceeding with his study of the remaining basic principles including *sic utere tuo ut alienum non laedas*, sustainable development and equity.

79. With regard to the future workplan, the Special Rapporteur initially indicated its content in his first report (para. 92). The members of the Commission wished to be presented with a more detailed plan of work extending beyond the current quinquennium. Set out directly below are the details of the plan post-2016. It is hoped that the work on the topic will have been completed by 2020.

Third report (2016)

Part III. Basic principles (continued)

Draft guideline 6: Principle of *sic utere tuo ut alienum non laedas*

Draft guideline 7: Principle of sustainable development (utilization of the atmosphere and environmental impact assessment)

Draft guideline 8: Principle of equity

Draft guideline 9: Special circumstances and vulnerability

Fourth report (2017)

Part IV. Prevention and precaution

Draft guideline 10: Prevention

Draft guideline 11: Due diligence

Draft guideline 12: Precaution

[207] See paragraphs 17-18 of the First Report (A/CN.4/667).

Fifth report (2018)

Part V. Interrelationship with other relevant fields of international law

Draft guideline 13: Principles guiding interrelationship

Draft guideline 14: Law of the sea

Draft guideline 15: International trade law

Draft guideline 16: International human rights law

Sixth report (2019)

Part VI. Compliance and dispute settlement

Draft guideline 17: Compliance and implementation

Draft guideline 18: Dispute settlement

Draft preamble

Completion of the first reading of the draft guidelines

Seventh report (2020)

Second reading of the draft guidelines

Annex

Draft guidelines

Part I. General guidelines

Draft guideline 1: Use of terms

For the purposes of the present draft guidelines,

(a) **"Atmosphere" means the envelope of gases surrounding the Earth, within which the transport and dispersion of degrading substances occurs.**

(b) **"Air pollution" means the introduction by human activities, directly or indirectly, of substances or energy into the atmosphere resulting in deleterious effects on human life and health and the Earth's natural environment.**

(c) **"Atmospheric degradation" includes air pollution, stratospheric ozone depletion, climate change and any other alterations of atmospheric conditions resulting in significant adverse effects to human life and health and the Earth's natural environment.**

[Definition of other terms will be proposed at later stages.]

Draft guideline 2: Scope of the guidelines

(a) **The present draft guidelines address human activities that directly or indirectly introduce deleterious substances or energy into the atmosphere or alter the composition of the atmosphere, and that have or are likely to have significant adverse effects on human life and health and the Earth's natural environment.**

(b) **The present draft guidelines refer to the basic principles relating to the protection of the atmosphere as well as to their interrelationship with other relevant fields of international law.**

(c) **Nothing in the present draft guidelines is intended to affect the legal status of airspace under applicable international law.**

Part II. General principles

Draft guideline 3: Common concern of humankind

The atmosphere is a natural resource essential for sustaining life on Earth, human health and welfare, and aquatic and terrestrial ecosystems, and hence the degradation of atmospheric conditions is a common concern of humankind.

Draft guideline 4: General obligation of States to protect the atmosphere

States have the obligation to protect the atmosphere.

Draft guideline 5: International cooperation

(a) **States have the obligation to cooperate with each other and with relevant international organizations in good faith for the protection of the atmosphere.**

(b) **States are encouraged to cooperate in further enhancing scientific knowledge relating to the causes and impacts of atmospheric degradation. Cooperation could include exchange of information and joint monitoring.**