Protecting Migratory Species of Wild Animals from Climate Change°

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The Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) of 1979 was intended to protect the conservation of migratory species of wild animals in danger of extinction for current and future generations. It establishes a global framework for the rational conservation and sustainable use by migratory animals of the wild and of their natural habitats. Agenda 21 in the Rio Conference Report indicates that the CMS provides the international foundation for the protection and harvesting of migratory species of animals from the wild. In paragraph 203, The Future We Want *introduces some new elements, including a new focus on the social impact of wildlife conservation policies: beyond the narrow direct economic or environmental consequences of these policies, also the wider costs and benefits for the communities and groups affected by these policies are being more commonly introduced into the discussion. The protection of endangered migratory species of wild animals is linked to the notion of sustainable development. The 17 SDGs reflect analogous concerns. Climate change is seen by both wildlife experts and decision-makers as one of the biggest risks to endangered*

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migratory animals species. The CMS was drafted at a point in time when climate change was not considered a top concern for the international agenda. However, the CMS is an international instrument that may be interpreted broadly and in new ways in accordance with present-day conditions. As Article 31, para. 3 of the VCLT suggests, the CMS shall be interpreted with subsequent developments in international law in mind. Thus, there is room for interaction and integration with the Paris Agreement and the Glasgow Climate Pact. The question of main concern in this Article is whether that interaction and integration is auxiliary to strengthening the international climate normative framework. So far as climate change mitigation strategies are concerned the answer given by this work is a positive one: as a teleological interpretation shows, the CMS obliges states to adopt appropriate measures to protect endangered migratory species of animals not only from overexploitation, but also from any other analogous cause of damage and threat such as anthropogenic climate change and to that extent it does somehow strengthen the Paris Agreement and the Glasgow Climate Pact. As far as adaptation to counteract the effects of climate change is concerned, the relevance of the CMS is less evident and clear. The CMS does not specifically demand that states adapt to adverse changes in the wildlife environment, but the Paris Agreement does. At the same time, both the Paris Agreement and the Glasgow Climate Pact acknowledge the importance of adaptation as part of a response to climate change. As such, there is no reason to consider the CMS as an obstacle to adaptation. The more delicate question is whether by financially supporting climate resilience in wildlife-exporting countries GHG-emitting states might find a way of scaling down their domestic mitigation duties and obligations under the CMS, the Paris Agreement and the Glasgow Climate Pact.

> Clearly, besides international wildlife law, conservation success is also affected by international law addressing climate change.
>
> —Arie Trouwborst

I. INTRODUCTION

The 1979 Convention on the Conservation of Migratory Species of Wild Animals (hereinafter CMS or the Bonn Convention)[1] was intended to provide a global framework for the protection of migratory wild fauna species[2] which will facilitate their study, conservation and rational use.[3]

1. Convention on the Conservation of Migratory Species of Wild Animals, Nov. 6, 1983, 1651 U.N.T.S. 333. For the English version of the Convention, see the website at the following address: https://www.cms.int/sites/default/files/instrument/CMS-text.en_.PDF.

2. According to Article I, "For the purpose of this Convention: a) "Migratory species" means the entire population or any geographically separate part of the population of any species

As a comprehensive treaty intended for universal adhesion,[4] the CMS has largely succeeded in achieving these objectives.[5]

Agenda 21 in the 1992 Rio Conference Report[6] acknowledges that the CMS provides the international foundation for the protection and sustainable use of migratory species.[7] Paragraph 203 of *The Future We Want*, a UN General Assembly Resolution adopted in 2012, introduces some new elements, including a new focus on the social impact of conservation policies of wild species[8] and their natural habitats.[9] There is no longer a singular focus on the conservation costs of these policies, but rather a broader and deeper focus on the costs and benefits for the communities and groups directly impacted by them. Protection of endangered wild migratory species is closely linked with the notion of sustainable development. The twenty-year review of Agenda 21 explains this in clear terms when it stresses: "the importance of the conservation and protection of wildlife . . . ecosystems and cultural diversity for sustainable development" and when it commits states to apply an ecosystem approach in the management, in accordance with international law, of activities that have a negative impact on wildlife species, including wild migratory species.[10]

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or lower taxon of wild animal, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries[.]" *Id*. at art. 1.

3. *See* Simon Lyster, *The Convention on the Conservation of Migratory Species of Wild Animals (The Bonn Convention)*, 29 NAT. RES. J. 979, 979 (1989).

4. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1. The convention is ratified by several countries of the world, including the United Kingdom and India, and is legally binding. The convention, however, has not been ratified by China and the United States.

5. *See* Elisabeth Baldwin, *Twenty-Five Years under the Convention on Migratory Species: Migration Conservation Lessons from Europe*, 41 ENV'T. L. 535, 537 (2011); Douglas Hykle, *The Convention on Migratory Species and Other International Instruments Relevant to Marine Turtle Conservation: Pros and Cons*, 5 J. INT'L WILDLIFE L. & POL'Y. 105, 109 (2002); Elizabeth Maruma Mrema, *The Bonn Convention on Migratory Species—the Trailblazer of the UN in Bonn*, *in* NACHHALTIG INS 21. JAHRHUNDERT: 15 JAHRE UNO-STADT BONN 116, 118 (Bouvier Verlag, 2011).

6. Agenda 21 emerged as a consensus from the Earth Summit. *See* Chip Lindner, *Agenda 21*, *in* THE WAY FORWARD: BEYOND AGENDA 21 3, 4 (Routledge, 1st ed., 1997).

7. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1. This is the conclusion that may be drawn from the recognition of CMS as an international agreement that stands at the intersection between the environment, trade, and development.

8. G.A. Res. 66/288, ¶ 203 (July 27, 2012).

9. According to Article I, for the purpose of the CMS, "'habitat' means any area in the range of a migratory species which contains suitable living conditions for that species[.]" *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. 1.

10. G.A. Res. 66/288, ¶ 130 (July 27, 2012).

The Agenda 2030 and the related UN Sustainable Development Goals (SDGs) reflect analogous concerns.[11] At least four SDGs assume relevance here. The first, SDG 15, commits states to "take urgent action to end poaching and trafficking of protected species of flora and fauna address both demand and supply of illegal wildlife products."[12] At least in form, it has done so by adopting the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) agreement.[13] The second, SDG 14, commits states to address "overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics."[14] In aiming to eradicate unregulated fishing practices, science-based management plans are specifically identified as priorities. The third, SDG 2 (5), aims to maintain "the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species."[15] The fourth, SDGs, commits states to take "urgent action" to deal with climate change and its impacts.[16] All four SDGs are closely inter-linked. None of this introduces anything new to international wildlife law and policy, but they do help in reaffirming existing commitments within the framework of a process whose outcomes the United Nations will review in due course.

International policy makers and wildlife scientists thus agree that climate change is one of the greatest threats[17] faced by the endangered

11. G.A. Res. 70/1, preamble (Sept. 25, 2015).

12. Goal 15 commits states to "[p]rotect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss," and Target 15.c of the UN's 17 Goals further commits states to "enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities." *#Envision2030 Goal 15: Life on Land*, UNITED NATIONS, https://www.un.org/development/desa/disabilities/envision2030-goal15.html#:~:text=Goal%2015%3A%20Protect%2C%20restore%20and,degradation%20and%20halt%20biodiversity%20loss (last visited Apr. 29, 2023) [hereinafter *#Envision2030*].

13. Convention on International Trade in Endangered Species of Wild Fauna and Flora, March 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243. The text of the agreement is also available at the CITES's official website at the following web address: https://cites.org/eng/disc/text.php.

14. *See #Envision2030*, *supra* note 12.

15. *Id*.

16. *Id*.

17. *See also* Ottavio Quirico, *Disentangling Climate Change Governance: A Legal Perspective*, 21 REV. EUR. CMTY. & INT'L L. 92, 92 (2012).

migratory species of wild animals today.[18] Unless real and significant reductions in greenhouse gas emissions are made following the adoption of the Paris Climate Accord[19] and the Glasgow Climate Pact,[20] the harmful impacts on migratory species of wild animals will continue. The consequences for wildlife exporting countries will be important and serious. The CMS agreement was drafted at a time when climate change was not considered a top priority on the world agenda. However, the CMS was not intended to be set in stone, and in fact it is a legal instrument that may be interpreted and applied broadly and in new ways in accordance with present-day conditions.[21] Other than this it is an instrument that may be subject to further evolution through amendments,[22] the incorporation by reference of generally acknowledged international provisions and rules, and the adoption of enforcing agreements and soft law.[23]

As Article 31, paragraph 3 of the Vienna Convention on the Law of Treaties of 1969[24] suggests, the CMS shall be interpreted and applied with subsequent developments in international law and policy in mind.[25] Thus, there is room for interaction with the UN Framework Convention on Climate Change (UNFCCC) and the Glasgow Climate Pact.[26]

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18. *See, e.g.*, Erica Lyman, *Rethinking International Environmental Linkages: A Functional Cohesion Agenda for Species Conservation in a Time of Climate Change*, 27 FORDHAM ENV'T. L. REV. 1, 1 (2012) (stressing that climate change is having a "significant impact on species conservation").

19. Framework Convention on Climate Change, *Adoption of the Paris Agreement*, FCCC/CP/2015/L.9/Rev.1 (Dec. 12, 2015).

20. The text in English of the Glasgow Climate Pact is available at: https://unfccc.int/documents/310475. For a discussion of the Glasgow Climate Pact, *see* Axel Michaelowa, *The Glasgow Climate Pact: A Robust Basis for the International Climate Regime in the 2020s*, 56 INTERECONOMICS 302, 302–03 (2021).

21. For more on the interpretation of the international environmental law agreements, *see* Rebecca Brown, *Invoking International Environmental Norms Through Treaty Interpretation*, 20 L. & PRAC. INT'L. CT. & TRIB. 235, 235 (2021).

22. *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. X.

23. *See* Brown, *supra* note 21.

24. Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331.

25. *Id*. Art. 31, ¶ 3 of the Vienna Convention on the Law of Treaties of 1969 provides that "[t]here shall be taken into account, together with the context: (a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions; (b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation; (c) any relevant rules of international law applicable in the relations between the parties." This provision can be considered to reflect customary international law on the matter. *See, e.g.*, Territorial Dispute (Libyan Arab Jamahiriya v. Chad), Judgment, 1994 I.C.J. 6 ¶ 41 (Feb. 3).

26. *See also* Karen N. Scott, *International Environmental Governance: Managing Fragmentation through Institutional Connection*, 12 MELB. J. INT'L. L., 1, 8 (2011); Bethany

The question of main concern in the present paper is whether that interaction is of help in strengthening the international climate legal framework,[27] or whether the CMS in some way hinders the effective enforcement of the mitigation and adaptation strategies elaborated in particular by the Paris Agreement and the Glasgow Climate Pact. So far as climate change mitigation strategies are concerned the answer given by this work is a positive one: if interpreted teleologically, the CMS requires State Parties to adopt or strengthen measures indispensable to protect migratory species of wild animals not only from overexploitation, but also from any other analogous causes of damage including anthropogenic climate change. To that extent it does strengthen the Paris Agreement and the Glasgow Climate Pact.[28]

So far as adaptation to counteract the effects of climate change is concerned,[29] the relevance of the CMS is less apparent and clear.[30] The CMS does not specifically require states to adapt to adverse changes in wildlife populations, but nor does the Paris Agreement. At the same time, both the Paris Agreement and the Glasgow Climate Pact acknowledge the importance of adaptation as part of a response to anthropogenic climate change.[31] Provided states do not violate CMS Article III by failing to take action to avoid any migratory species of

Lukitsch Hicks, *Treaty Congestion in International Environmental Law: The Need for Greater International Coordination*, 32 U. RICH. L. REV. 1643, 1646–47 (1999) (insisting on the need to achieve a coordination of international environmental agreements).

27. For a good introduction to the international climate legal framework, *see* DANIEL BODANSKY ET AL., INTERNATIONAL CLIMATE CHANGE LAW 118 (Oxford Univ. Press 2014); Susan Biniaz, *An Overview of International Climate Change Law, Including the Paris Agreement*, 92 AUSTL. L. J. 750, 750 (2018).

28. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1. The preamble that forged the CMS gives clear evidence of the above-mentioned allegation when it provides that "the States are and must be the protectors of the migratory species of wild animals that live within or pass through their national jurisdictional boundaries[.]" *Id* at pmbl.

29. *See* Agata Bator & Agnieszka Borek, *Adaption to Climate Change under Climate Change Treaties*, 23 INT'L. CMTY. L. REV. 158, 158 (2021).

30. Tom Dillon, *Glasgow Deal to Tackle Emissions Includes Nature-Based Solutions*, PEW (Nov. 18, 2021), https://www.pewtrusts.org/en/research-and-analysis/articles/2021/11/18/glasgow-deal-to-tackle-emissions-includes-nature-based-solutions. The role of nature to mitigate the impacts of a warming climate—and help wildlife, ecosystems, and people adapt and build resilience to those changes—was a core topic of attention at the 26th Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change in Glasgow, Scotland.

31. *See* Alexandra Lesnikowski, *What Does the Paris Agreement Mean for Adaptation?*, 17 CLIMATE POL'Y. 825, 825 (2017); Edward Morgana et al., *Assessing the Alignment of National-Level Adaptation Plans to the Paris Agreement*, 93 ENV'T. SCI. & POL'Y. 208, 208 (2019).

wild animals becoming endangered and extinct,[32] there is no reason to envisage the CMS as an obstacle to adaptation.[33] The more delicate question is whether by financially supporting climate resilience and adaptation in wildlife exporting countries GHG-emitting states might find a way of scaling down their mitigation duties under the CMS, the Paris Agreement and the Glasgow Climate Pact.

II. CLIMATE CHANGE MITIGATION DUTIES UNDER ARTICLES II AND V OF THE CMS

The scientific evidence shows clearly that anthropogenic GHG emissions have caused wildlife damage.[34] In particular there is the rising of temperatures of the Earth's air and water that lowers many species' survival rates due to changes that lead to less successful reproduction, less food, and that interferes with their habitats (including the natural environment of migratory species of wild animals as protected by Articles II, III, IV and V of the CMS).[35] Reducing rapidly the rising of earth and water temperatures is thus indispensable to save wildlife species and their original habitats.[36] The dramatic fall in population of leopards of Africa with the rising temperatures may corroborate this statement.[37] And so also the tragedy of the collapse of polar bear

32. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. III.

33. For the assertion that illegal trade in wildlife can undermine climate change adaptation efforts, particularly ecosystem-based adaptation which uses ecosystems and biodiversity as an overall adaptation strategy, *see* Ibrahim Thiaw, *The Critical Link Between Resource Plunder and Illegal Trade in Wildlife*, UNITED NATIONS, https://www.un.org/africarenewal/web-features/critical-link-between-resource-plunder-and-illegal-trade-wildlife (last visited Apr. 21, 2023).

34. *See, e.g.*, Sylvie Brouder, *Greenhouse Gas Emissions and Pelicans: Ecological Accounting in Bioenergy Cropping Systems*, JOINT RESEARCH CENTER FOR ECOSYSTEM AND ENVIRONMENTAL CHANGE 82, 83 (2010), https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.646.4219&rep=rep1&type=pdf#page=84; William F. Laurance et al., *Tropical Forest Fragmentation and Greenhouse Gas Emissions*, 110 FOREST ECOLOGY & MGMT. 173, 173 (1998).

35. *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at arts. II-V.

36. *See, e.g.*, Erik Hofmeister et al., *Climate Change and Wildlife Health: Direct and Indirect Effects*, U.S. GEOLOGICAL SURV., https://pubs.usgs.gov/fs/2010/3017/pdf/fs2010-3017_rev2012.pdf.

37. For more in general on the protection of wild animals in international law, *see* Yann Prisner-Levyne, *La Protection de la Faune Sauvage Terrestre en Droit International* (Apr. 25, 2018) (Thèse de doctorat, Université Panthéon-Sorbonne-Paris I); Maria Clara Maffei, *La protezione delle specie, degli habitat e della biodiversità* [*The Protection of Species, Habitats and Biodiversity*], *in* LA PROTEZIONE DELL'AMBIENTE NEL DIRITOO INTERNAZIONALE [THE PROTECTION OF THE ENVIRONMENT IN INTERNATIONAL LAW], 263-331 (Alessandro Fodella &

numbers as a result of the melting of the Arctic sea ice.[38] The science shows that the warming of Earth's air and water temperatures cannot easily be reversed and that it is, in that sense, 'persistent'. Its toxic effects include loss of biodiversity and ecosystems. Climate change thus degrades the wildlife environment and causes loss to any individual or community group that is dependent on or involved with the use, management or trade of wildlife resources.[39] These harmful, toxic, and persistent effects more than satisfy the requirement established in Article II of the CMS for the provision of immediate protection for migratory species that are threatened by extinction.[40] Thus, in principle, Articles II to V of the CMS apply to climate change insofar as it has or is likely to have deleterious effects on the preservation of endangered species of wild animals.[41]

The core of Articles II to V is the obligation set out in Article II, paragraph two, section b, to provide immediate protection for migratory species of animals that are included in Appendix I.[42] The wording of this provision, when read in combination with the Preamble to the CMS in the part where it provides that "the States are and must be the protectors of the migratory species of wild animals that live within or pass through their national jurisdictional boundaries,"[43] suggests that Article II, paragraph 2, section b extends to 'protection' of wildlife species of migratory animals from any future damage and 'preservation' in the sense of maintaining their present condition.[44] It therefore covers both current and future impacts.

The content of Article II is informed by the other provisions of the CMS agreement and other applicable rules and general principles of international law.[45] Article III, paragraph 4, section b is perhaps the most important of these.[46] Article III, paragraph 4, section b requires states to

Laura Pineschi eds., 2009); Maria Clara Maffei, *Evolving Trends in the International Protection of Species*, 36 GER. Y.B. INT'L L. 131, 135 (1993).

38. *See, e.g.*, Péter K. Molnár et al., *Predicting Survival, Reproduction and Abundance of Polar Bears Under Climate Change*, 143 BIOLOGICAL CONSERVATION 1612, 1613 (2010).

39. *See also* Orly Razgour et al., *An Integrated Framework to Identify Wildlife Populations Under Threat From Climate Change*, 18 MOLECULAR ECOLOGY RES. 18, 19 (2018).

40. *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. II.

41. *See id*. at arts. II-V.

42. *Id*.

43. *Id*.

44. *Id*.

45. *Id*.

46. *Id*.

"prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species."[47] Although anthropogenic GHG emissions are not specifically classified as adverse effects or obstacles to the migratory species of wild animals, it is plausible to include them within Article III when they aggravate or contribute to the endangerment of these species, as they do generally. The focus of Article III is clearly on mitigation of damaging effects on migratory species rather than on promoting adaptation.

CMS Parties have made several decisions that prioritize actions to reduce climate change impacts on migratory species of wild animals, and it has never been suggested that these decisions were not admissible under the CMS agreement.[48] If there were any doubt or uncertainty about this, reference could also be made to Article I, paragraph one, section b, that introduces the notion of the conservation status of a migratory species.[49] Article I, paragraph one, section b broadly defines that status as "the sum of the influences acting on the migratory species that may affect their long-term distribution and abundance."[50] According to this interpretation, it is questionable whether or not Article I, paragraph one, section b also refers to actions that result in greenhouse gas (GHG) emissions that have an impact on the survival or wellbeing of migratory species of wild animals and their natural surroundings.[51] Article III, paragraph four, section b would similarly encompass a reference to GHG emissions when it establishes the duty "to prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species."[52] When read collectively, Articles I, II, and III appear to cover all actions that have a negative effect on migratory wild animal species, including GHG emissions.[53] Articles I to III do not specifically mention private parties, but they do hold states parties accountable for

47. *Id*. at art. VIII, ¶ 1 ("These shall include measures: (a) to penalize trade in, or possession of, such specimens, or both; and (b) to provide for the confiscation or return to the State of export of such specimens.").

48. John Atkinson et al., *Climate Change Impacts on Migratory Species: The Path Ahead*, THE ZOOLOGICAL SCHOOL OF LONDON, https://www.cbd.int/cop/cop-10/doc/unep-cms-cop10-cc-en.pdf.

49. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. 1.

50. *Id*.

51. *Id*.

52. *Id*.

53. *Id*.

regulating and limiting the risk that private sector activities in their territory pose to migratory species of wild animals.[54] Fundamentally, states have a due diligence duty to take the necessary precautions to prevent or decrease harmful emissions, including, as mentioned above, GHG emissions.[55] In light of this, states are required to regulate and reduce GHG emissions from any source that could harm migratory species or harm their natural habitats and ecosystems.

The standard of conduct outlined in Article III, paragraph four, section b is general and states that one should "remove, compensate for, or minimize" any negative effects.[56] However, this does not imply that all activities or obstacles that seriously hinder or prevent a species' ability to migrate should be stopped, nor does it require that anthropogenic GHG emissions stop immediately or even eventually. In this case, mitigation does not immediately imply discontinuance. It would be sufficient to take actions that gradually cut emissions over time in order to lessen the negative effects of activities on migratory species of wild animals. When interpreting and applying the CMS as regards harm brought on by GHG emissions, the United Nations Framework Convention on Climate Change (UNFCCC) would be pertinent.[57] The UNFCCC's Article 2 specifically bears mention as it mandates stabilizing GHG concentrations at a level high enough to prevent "dangerous anthropogenic interference with the climate system" but does not require complete GHG eradication.[58] According to this Article, there will be enough time to ensure that food production is not threatened and to ensure that ecosystems can adjust naturally to climate change, and to enable economic development to proceed in a sustainable

54. *Id*.

55. *See* Chiara Macchi, *The Climate Change Dimension of Business and Human Rights: The Gradual Consolidation of a Concept of "Climate Due Diligence,"* 6 BUS. & HUM. RTS. J. 93, 93 (2020); Kristian Høyer Toft, *Climate Change as a Business and Human Rights Issue: A Proposal for a Moral Typology*, 5 BUS. & HUM. RTS. J. 1, 10 (2020); Stephanie Wartelle, *Oh the Tides They Are a Changin': Climate Change Due Diligence, and How the Standard of Care Should Change to Reflect the Current Technologies in Flood Mapping*, 10 LSU J. ENERGY L. & RES. 274, 275 (2002); MARGARETHA WEWERINKE-SINGH, STATE RESPONSIBILITY, CLIMATE CHANGE AND HUMAN RIGHTS UNDER INTERNATIONAL LAW 57 (Hart Publishing, 2019).

56. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. III.

57. United Nations Framework Convention on Climate Change, May 9, 1992, S. TREATY DOC NO. 102-38, 1771 U.N.T.S. 107.

58. *See* M. Oppenheimer & A. Petsonk, *Article 2 of the UNFCCC: Historical Origins, Recent Interpretations* 73 Climate Change, 195, 203 (2005); Andreas Schaefer et al., Reasoning Goals of Climate Protection. Specification of Article 2 UNFCCC (Umweltbundesamt [Federal Environmental Agency], 2004).

manner. The actions that are adopted must be precautionary due to the danger and the scientific uncertainty that GHG emissions pose to migratory species and their habitats. The UNFCCC's Article 3 paragraph three states that parties 'should' adopt precautionary measures.[59]

The most obvious response is that, with regard to GHG emissions contaminating migratory species of wild animals and their natural habitats, the Paris Agreement indicates the "necessary measures" and constitutes the widely acknowledged international standards referred to in this Article.[60] This standard is what CMS Article III, paragraph four, sections b and c implicitly requires in order to be put into effect.[61] Therefore, the advantage of making a specific state's or states' noncompliance with the Paris Agreement a litigable matter in CMS proceedings based on noncompliance with the obligations and duties outlined in Article III is presented by this argument.

We can discern a possible counterargument, namely that Article III is cautious in its citation of international laws and norms and is phrased in a way that might give the impression that it gives the underlying responsibility of due diligence no particular meaning. States sought to preserve for themselves as much freedom of action as feasible while formulating this Article by weighing the demands of their own economies against protection measures for migratory species that have been designated as being at risk of extinction. Because of this, Article III, paragraph 4, section c states that the Parties only accept to act "to the extent feasible and reasonable, to prevent, minimize, or control elements that are endangering or are likely to further endanger."[62]

If at all, how may this wording affect the claim that CMS Article III, paragraph four, sections b and c, include applicable norms and rules

59. United Nations Framework Convention on Climate Change, May 9, 1992, S. TREATY DOC NO. 102-38, 1771 U.N.T.S. 107 ("The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.").

60. *See generally Adoption of the Paris Agreement*, *supra* note 19.

61. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1.

62. *Id.*

from the Paris Agreement?[63] If this is the case, would it then follow that CMS states are not legally required to enforce the regulations and standards of the Paris Agreement but are instead just required to take them into account, an obviously less important requirement? CMS Article XII, Paragraph 2, which only states that "the provisions of the CMS Convention shall . . . not alter the rights or responsibilities of any Party arising from any existing treaty, convention, or Agreement," seems to support a positive response to this query.[64]

Even while this is significant, it is insufficient to draw a definitive conclusion. In fact, Article III, paragraph four, section c requires parties to "prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating, already introduced exotic species."[65] This is because Article III, paragraph four, sections b and c are not quite as vague and generic as they initially appear.[66] As we saw above, persistent GHG emissions including carbon dioxide, methane, nitrous oxide, and other synthetic chemicals are toxic and damaging to the lives and habitats of migratory animals.[67] Given their impacts on migratory animal species, as well as on the ecosystems and habitats in which they live, states arguably need to take significant action to address climate change in order to comply with Article III.

Any other reading and interpretation of Article III, paragraph four, sections b and c, would weaken the cooperation that is unquestionably at the core of the implementation of CMS principles and would undermine the significance of participating in the Paris Agreement.[68] So, we are brought back to the previous conclusion: that the Paris Agreement primarily defines the rights and obligations of parties to the CMS with regard to mitigating climate change.[69] The only proviso is clearly that only signatories to the Paris Agreement may use this interpretive strategy.

63. *Id*.
64. *Id*.
65. *Id*.
66. *Id*.
67. *See, e.g*., Brouder, *supra* note 34, at 83; Laurance et al., *supra* note 34, at 173.
68. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. III.
69. *See generally Adoption of the Paris Agreement*, *supra* note 19.

III. THE PARIS AGREEMENT ON CLIMATE CHANGE

The Paris Agreement, which was adopted at the COP21 climate conference in Paris in December 2015, lays out an extraordinary new program for the implementation of the UN SDGs and UNFCCC.[70] First, it intends to "pursue efforts" to keep global warming to 1.5 degrees Celsius and to keep it far below two degrees Celsius.[71] To attain the agreement's temperature goal, all states parties are required to "plan, communicate, and sustain consecutive nationally decided contributions."[72] Second, through encouraging development with minimal CO_2 emissions, the Paris Agreement seeks to improve climate resilience and adaptation.[73] It achieves this primarily by restating the UNFCCC's funding clauses.[74] Thus, the Paris Agreement contains an implicit commitment that low carbon dioxide emissions development is necessary for sustainable development.

Despite being hotly debated and unsettled, the Paris Agreement maintains the Kyoto Protocol's foundational idea of shared but distinct responsibilities.[75] But it accomplished it by taking a different tack than the Kyoto Protocol.[76] In contrast to the Kyoto Protocol, which only refers to the developed states parties, the Paris Agreement establishes that all Contracting Parties are expected to contribute in some way to ensuring that GHGs peak as soon as possible and then rapidly decline to become stable in the second half of the twenty-first century.[77]

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70. *See* Daniel Bodansky, *Climate Change: Reversing the Past and Advancing the Future*, 115 AJIL UNBOUND 80, 80-85 (2021).

71. *See* Joeri Rogelj et al., *Paris Agreement Climate Proposals Need a Boost to Keep Warming Below 2°C*, NATURE 534, 631-39 (2016). Although it is evident that the Paris Agreement's primary goal is to strengthen international efforts to combat climate change, it is not clear what is meant by "global average temperature" or what time period qualifies as "pre-industrial."

72. *See* Rowena Cantley-Smith, *Article 2 Aims, Objectives, and Principles, in* THE PARIS AGREEMENT ON CLIMATE CHANGE: A COMMENTARY 81-82 (Geert Van Calster & Leonie Reins eds., 2021).

73. *See, e.g.*, Richard S. J. Tol, *Adaptation and Mitigation: Trade-offs in Substance and Methods*, 8 ENV'T SCI. & POL'Y., 572, 572-78 (2005) (discussing the distinction between mitigation and adaptation).

74. *See generally Adoption of the Paris Agreement*, *supra* note 19.

75. *See, e.g.*, Christopher Stone, *Common But Differentiated Responsibilities in International Law*, 98 AM. J. INT'L. L. 276, 276; Joyeeta Gupta, *A History of International Climate Change Policy*, 1 WIRES CLIMATE CHANGE 636, 638 (2010).

76. *See* Alan Boyle, *Protecting the Marine Environment from Climate Change: The LOSC Part XII Regime*, *in* THE LAW OF THE SEA AND CLIMATE CHANGE: SOLUTIONS AND CONSTRAINTS 91-92 (Elise Johansen & Signe Busch eds., 2021).

77. *See* L. Rajamani, *Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics*, 65 INT'L & COMP. L.Q. 493, 496 (2016).

The contribution of each party will be determined by each according to its potential and capabilities; it has not been predetermined.[78] Developed nations will continue to take the lead,[79] but emerging nations, like China, the largest emitter of greenhouse gases globally, and India, the third-largest emitter, are no longer free from emissions reductions, as they were under the Kyoto Protocol.[80] Each party's unilaterally determined commitment essentially replicates Article III of the CMS's underlying due diligence obligation.[81] However, it is understood by all parties to the Paris Agreement that GHG emission reductions will gradually grow, to the extent that each nation's circumstances permit, "on the basis of equality, and in the context of sustainable development and efforts to eradicate poverty."[82] Thus, the obligation has an evolving nature and is situated within the Article 2 global temperature aim.[83] The Paris Agreement at least acknowledges that industrialized governments are not the only ones responsible for climate change and that it cannot be effectively handled by oversimplified notions of historical blame. This development marks a significant turning point.

Having stated that, the question that demands response is if the Paris Agreement is more effective at reducing GHG emissions than the Kyoto Protocol. Positively, the system of international climate law includes a goal that is fully measurable and explicitly stated. This goal offers a helpful framework for understanding and implementing the conduct responsibilities envisioned in Articles 3 to 5 of the Paris Agreement.[84] On the downside, based on the legal pledges made thus far, unless states quickly adopt plans for curbing their emissions, global temperatures will continue to rise to above two degrees Celcius. The Paris Agreement may succeed or it may completely fail.[85]

With that conclusion in mind, we could argue that the CMS is more demanding and that compliance with the Paris Agreement is not always

78. *See, e.g.*, *Adoption of the Paris Agreement*, *supra* note 19, at art. 4, ¶ 11 ("A Party may at any time adjust its existing nationally determined contribution with a view to enhancing its level of ambition, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement").

79. *Id*. at art. 4, ¶ 4.

80. *Id*.

81. *Id*.

82. *Id*.

83. *See* Carl-Friedrich Schleussner et. al., *Science and Policy Characteristics of the Paris Agreement Temperature Goal*, 6 NATURE CLIMATE CHANGE 827, 830 (2016).

84. *Adoption of the Paris Agreement*, *supra* note 19.

85. *See* Boyle, *supra* note 76, at 92-93.

enough to satisfy the mitigation requirements of Article III of the CMS, particularly when taken in conjunction with the general precautionary principle and the aforementioned duty of due diligence.[86] This seems like a good idea on the surface since it might encourage all parties to adopt a stricter standard for reducing GHG emissions, which would address the shortcomings of the Paris Agreement's obligations to do so. If there is sufficient proof that migratory species of wild animals are suffering substantial or irreparable harm, we may certainly argue that more aggressive preventative measures should be taken.

That is a valid argument, but there is a stronger counterargument, namely that of the *lex specialis* problem. Can it be claimed that the CMS regulates climate change impacts on migratory species of wild animals in isolation from the Paris Agreement? Other biodiversity conventions provide the evolutionary content for Article III duties, including the Convention on Biological Diversity (CBD)[87] and the Agreement on the Conservation of Albatrosses and Petrels (ACAP).[88] Why should the Paris Agreement be different?[89]

States attempting to make the case that adherence to the Paris Agreement is insufficient to meet CMS commitments would not be helped by this strategy. Although much will depend on the context in which the question arises, it might be possible to argue that Article III, paragraph four, sections a and b require states to adopt additional measures that do not fall within the scope of application of the Paris Agreement.[90] This, however, only brings us back to the issues with

86. *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. III.

87. *See* Convention on Biological Diversity, *Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity*, CBD/COP/DEC/XIII/24 (Dec. 16, 2016); Convention on the Conservation of Migratory Species of Wild Animals, *Gandhinagar Declaration on CMS and the Post-2020 Global Biodiversity Framework*, UNEP/CMS/COP13/CRP1/Rev.2 (Feb. 20, 2022); Lyle Glowka, *Complementarities Between the Convention on Migratory Species and the Convention on Biological Diversity*, 3 J. INT'L WILDLIFE L. & POL'Y 205, 245 (2000); Claire Shine, *Selected Agreements Concluded Pursuant to the Convention on the Conservation of Migratory Species of Wild Animals*, *in* COMMITMENT AND COMPLIANCE: THE ROLE OF NON-BINDING NORMS IN THE INTERNATIONAL LEGAL SYSTEM 200-01 (Dinah Shelton ed., 2000).

88. Agreement on the Conservation of Albatrosses and Petrels, Feb. 1, 2004, (2004) ATS 5.

89. *See* Nele Matz, *Chaos or Coherence?: Implementing and Enforcing the Conservation of Migratory Species Through Various Legal Instruments*, 65 ZEITSCHRIFT FÜR AUSLÄNDISCHES ÖFFENTLICHES RECHT UND VÖLKERRECHT [J. FOR FOREIGN PUB. L. & INT'L L.] 197, 207 (2005).

90. *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. III.

applying Article III.[91] The conclusion that Article III of the CMS does not oblige governments to go above and beyond the Paris Agreement's implementation requirements is the more compelling one.[92]

But that leaves a question: What does the Paris Agreement prescribe and how far does it take us towards the objective of holding down global temperature increases to "well below" two degrees? It seems necessary to suggest that going beyond the Paris Agreement would be indispensable given the parties' evolving commitments; the terms of the Agreement are undoubtedly broad enough to support whatever level of due diligence is necessary to accomplish the goal stated in Article 2.[93]

If we want to find out what Article III of the CMS requires from states parties we should, thus, first find out what the Paris Agreement requires from them. Clearly, a thorough examination of that matter is outside the purview of the present work, but there are two significant considerations that deserve being mentioned. First, the Paris Agreement is not soft law in the traditional sense despite including "a mix of hard, soft, and non-obligations between which there is dynamic interplay;"[94] rather, it is a binding agreement to which the Vienna Convention on the Law of Treaties applies, and has been ratified by 193 states.[95] Therefore, the Paris Agreement could be used for the purpose of the interpretation and application of Article III of the CMS.[96]

Second, even within the terms of the Agreement, the actions that each party is expected to take under the Paris Agreement must be "ambitious, . . . reflect a development over time,' and be done with a view to achieving the Agreement's goals.[97] Based on this formulation, we can infer that significant GHG-emitting states cannot afford to take a passive or inactive approach. Article 4 also requires the parties to "prepare, communicate, and maintain successive nationally determined contributions" that "aim to reach global peaking of greenhouse gas emissions as soon as possible . . . and to undertake rapid reductions thereafter in accordance with best available science," despite being

91. *Id*.
92. *Id*.
93. *Id*.
94. *Id*.
95. *Id*.
96. *See* Boyle, *supra* note 76, at 92-93, 95.
97. *See* Bernard H. Oxman, *The Duty to Respect Generally Accepted International Standards*, 24 N.Y.U. J. INT'L L. & POL. 109, 113 (1991).

subject to stringent caveats.[98] Again, this wording does not support doing little to nothing; rather, it strengthens the UNFCCC's already-made pledges.

Although the language of these Articles is intentionally vague, it is consistent with an evolving duty of due diligence, such as the one envisioned by Article III of the CMS.[99] Since the wording of the Paris Agreement purposefully leaves the nature of those duties and obligations open to debate, it would be difficult to prove that a state is not upholding its corresponding duties and obligations.[100] For this reason, the system of mandatory dispute settlement outlined in Article XIII of the CMS is of significance and utility in this situation.[101]

IV. THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS AND CLIMATE DISPUTES

The significance of CMS Article XIII for climate-related disputes concerning the migratory species of wild animals and their natural habitats is that it may provide a legal vehicle for the mandatory arbitration of disputes, which is simply not possible under the current international climate law regime. However, it is essential to recognize the political difficulty of bringing legal action against the states that produce the majority of the world's current GHG emissions.[102] Small developing states have already given it some thought and pulled back.[103] Many rely greatly on the states they may otherwise seek to sue economically. There is always a chance that litigation would stymie discussions, but in practice, it frequently has the opposite effect—

98. *Adoption of the Paris Agreement*, *supra* note 19.

99. Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. III.

100. *See* Mark Roelfsema, *Taking Stock of National Climate Policies to Evaluate Implementation of the Paris Agreement*, 11 NATURE COMMUNICATIONS 1, 2 (2020); Benoit Mayer, *Construing International Climate Change Law as a Compliance Regime*, 7 TRANSNAT'L ENV'T. L. 115, 117 (2018); Anna Riddell, *Human Rights Responsibility of Private Corporations for Climate Change? The State as a Catalyst for Compliance*, *in* CLIMATE CHANGE AND HUMAN RIGHTS—AN INTERNATIONAL AND COMPARATIVE LAW PERSPECTIVE 63 (Ottavio Quirico & Mouloud Boumghar eds., 2017).

101. *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. XIII.

102. *See* Elliott Davis Jr., *Some States Are Making Bold Climate Commitments, But Is It Enough?*, U.S. NEWS, (Jan. 14, 2022, 11:25 A.M.), https://www.usnews.com/news/best-states/articles/2022-01-14/some-states-are-taking-action-against-climate-change-but-does-it-matter.

103. *Commonwealth and Small States Call for Action on Climate Change*, THE COMMONWEALTH, (Oct. 24, 2011), https://thecommonwealth.org/news/commonwealth-and-small-states-call-action-climate-change.

pressuring reluctant actors to compromise. But there are hazards because litigation is costly and may not succeed.[104] Also, even legal victory comes with risks as the unsuccessful respondent state may choose to leave the CMS or, more likely, the Paris Agreement.[105] However, no state has yet chosen to leave the CMS. The Paris Agreement obligations of states parties under CMS do not depend on continued participation in the Paris Agreement, but rather on the role that the Paris Agreement plays in clarifying the content of "the necessary measures to remove, compensate for, or minimize the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species *and their habitats*."[106] Exiting either treaty would not change the binding force of a judgment against that state, and opting out of the Paris Agreement would not change those obligations and duties.

Furthermore, there is a solid case to be made that issues involving the effects of climate change on the migratory species of wild animals fall under CMS Article XIII's mandatory jurisdiction. The most convincing justification is that any disagreement involving the interpretation and application of the CMS is covered by Article XIII. And, in fact, the wording of Article XIII does not exclude a dispute concerning interpretation and application of Articles II and III of the CMS. Does it matter if there is also a disagreement over the UNFCCC and the Paris Agreement? Could it be claimed that in these situations there is no CMS dispute? According to one perspective, a disagreement under the CMS may exist even in the presence of a conflict under other treaties. The rationale behind this perspective is that there may be multiple disputes under different treaties, each subject to its own dispute settlement regime.

The same inquiry may also be made in the following manner: Does Article 14 of the UNFCCC supersede the CMS? In accordance with the terms of Article 14, any disagreement under the UNFCCC, including one involving the Paris Agreement, must be resolved by mandatory

104. *See* Maiko Meguro, *Litigating Climate Change through International Law: Obligations Strategy and Rights Strategy*, 33 LEIDEN J. INT'L L. 933, 933 (2020); CESAR RODRIGUEZ-GARAVITO, LITIGATING THE CLIMATE EMERGENCY: THE GLOBAL RISE OF HUMAN RIGHTS-BASED LITIGATION FOR CLIMATE CHANGE ACTION 33 (2021).

105. *See* Michael B. Gerrard, *Climate Change Litigation in the United States: High Volume of Cases, Mostly About Statutes*, *in* CLIMATE CHANGE LITIGATION: GLOBAL PERSPECTIVES 30 (Ivano Alogna, Christine Bakker & Jean-Pierre Gauci eds., 2021).

106. *See* Convention on the Conservation of Migratory Species of Wild Animals, *supra* note 1, at art. III.

conciliation.[107] Could we argue that the parties to a climate-related dispute concerning the migratory species of wild animals and their natural habitats should first use the UNFCCC conciliation procedure and that there is CMS compulsory jurisdiction only if UNFCCC conciliation fails to settle the dispute? That is a viable argument, yet the UNFCCC uses Article 14 conciliation for conflicts.[108] A CMS climate dispute, even if the issues overlap substantially with the Paris Agreement, is not the same dispute. One case uses the Paris Agreement to interpret and apply the UNFCCC. The other case interprets and applies the CMS by reference to the Paris Agreement. These appear to be two distinct cases.

V. CONCLUDING REMARKS

Despite being of utmost relevance, the relationship between climate change and the CMS is not clear-cut. What does seem arguable is that, in the context of Article III of the CMS, the Paris Agreement outlines the measures for safeguarding the migratory species of wild animals and their natural habitats from the harmful effects of GHG emissions and climate change. As a result, it is correct to argue that the Paris Agreement contributes to the evolution of the CMS's Article III. As such the Paris Agreement focuses on reducing GHG emissions rather than adapting to their negative effects.

The majority of environmental law treaties build on the requirement for due diligence and compel parties to adopt ever-stronger actions or adhere to global standards and norms. It is exceedingly challenging to maintain the claim that the due diligence obligation has a separate and, if necessary, a more onerous character once certain procedures, regulations, or standards have been agreed upon. The UNFCCC and the Paris Agreement are all examples of compromises that must be made between what is technically possible and what is commercially viable.[109] Therefore, the focus under CMS Article III has to be on what states have actually agreed rather than on what they should have agreed in some ideal world.

The UNFCCC regime noticeably lacks a mechanism for mandatory dispute settlement, which the CMS at best offers. Any state party may use Article XIII proceedings if another state violates its responsibilities arising from CMS Article III by failing to implement the Paris

107. United Nations Framework Convention on Climate Change, May 9, 1992, S. TREATY DOC NO. 102-38, 1771 U.N.T.S. 107.

108. *Id.*

109. *See* Boyle, *supra* note 76, at 102.

Agreement. Furthermore, rather than giving Article III a distinct and additional effect, governments' interpretation and application of the Paris Agreement will determine how well the migratory species of wild animals and their natural habitats are protected from catastrophic climate change.