Sustainable Use and Shared Species: Navigating AEWA's Constraints on the Harvest of African-Eurasian Migratory Waterbirds

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INTRODUCTION

In the spring of 1822, a white stork, *Ciconia ciconia*, was shot and killed on an estate in Germany. Hardly a remarkable occurrence, were it not for the fact that this particular bird had also been injured in its African wintering grounds—not by a bullet, but by a spear that remained embedded in the unfortunate animal during its return to Europe. This *Pfeilstörche* ("arrow stork"[1]) provided the first tangible proof that European storks migrate as far as equatorial Africa.[2] Its story also illustrates an early anthropogenic cause of mortality amongst migratory birds: deliberate killing by humans in different parts of their range, for a variety of motivations and through a variety of methods.

1. A misnomer insofar as the bird was impaled by a spear rather than an arrow.
2. *See further* RAGNAR K. KINZELBACH, DAS BUCH VOM PFEILSTORCH (2005) (discussing the history of the *Pfeilstörche*).

In modern times, the harvesting of waterbirds (that is, their targeted removal, whether live or dead, from wild populations[3]) remains widespread.[4] Harvesting has the potential to offer a variety of conservation benefits.[5] However, it can also have adverse effects on population survival if it is poorly managed.[6] Because the harvesting of migratory birds along their flyways[7] has a cumulative impact, ensuring the ecological sustainability of harvest is a multilateral endeavor.[8] It is therefore unsurprising that, despite unsustainable harvest not being the only threat to migratory birds, provisions on killing, capturing and trading have, for over a century, featured prominently in bird conservation treaties.[9] Given the divergent views amongst states (and other stakeholders) concerning the harvest of wild animals,[10] it is also unsurprising that the negotiation and subsequent application of these provisions have sometimes encountered difficulties.

This Article focuses on the regulation of harvest by one particular treaty: the Agreement on the Conservation of African-Eurasian Migratory Waterbirds ("AEWA" or "the Agreement").[11] AEWA falls within the family of legal instruments that have been developed under the Convention on the Conservation of Migratory Species of Wild Animals ("CMS" or "Bonn Convention").[12] The Agreement attempts to coordinate the conservation and sustainable use of

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3. Jesper Madsen et al., *Guidelines on Sustainable Harvest of Migratory Waterbirds*, AEWA Technical Series No. 62, 12 (Nov. 2015); *see also* Niels Kanstrup, *Sustainable Harvest of Waterbirds: a Global Review*, *in* WATERBIRDS AROUND THE WORLD 98, 98 (G.C. Boere et al. eds., 2006) (explaining that "harvest" does not include *unintentional* taking/killing of birds). This Article focuses on the harvest of waterbirds themselves rather than the harvest of their products (such as eggs or down). Moreover, its focus is on harvest rather than the concept of "taking." Although these terms overlap in content, the latter covers a far broader collection of activities than the former, *see infra* Part III.A.

4. Kanstrup, *supra* note 3, at 100; WETLANDS INT'L, STATE OF THE WORLD'S WATERBIRDS 2010 13 (2010), https://perma.cc/5ET4-BNTE.

5. *See infra* Part I.A.

6. *Id.*

7. A flyway can be defined as "the entire range of a migratory bird species (or groups of related species or distinct populations of a single species) through which it moves on an annual basis from the breeding grounds to non-breeding areas, including intermediate resting and feeding places as well as the area within which the birds migrate." Gerard C. Boere & David A. Stroud, *The Flyway Concept: What It Is and What It Isn't*, *in* WATERBIRDS AROUND THE WORLD 40, 40 (G.C. Boere et al. eds., 2006).

8. *See, e.g.*, Convention on Biological Diversity, *Addis Ababa Principles and Guidelines*, https://perma.cc/5LFU-SJSB [hereinafter *Addis Ababa Principles*] (rationale for practical principle 8 explaining that the absence of arrangements for international cooperation in controlling the use of transboundary biodiversity resources "can lead to each state implementing separate management regimes which, when taken together, may mean that the resource is over-utilized").

9. This trend began with the first multilateral treaty dedicated to bird conservation. *See generally* the Convention for the Protection of Birds Useful to Agriculture, Mar. 19, 1902, https://perma.cc/WY7M-YMGL.

10. *See infra* Part I.B.

11. Agreement on the Conservation of African-Eurasian Migratory Waterbirds, Jun. 16, 1995, https://perma.cc/E8KK-KQ6Y (version of Agreement text and Annexes as amended at the 7th session of the Meeting of the Parties) [hereinafter AEWA].

12. Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, 1651 UNTS 356 [hereinafter CMS].

migratory waterbirds, including the white stork and an additional 254 species, across an Agreement Area comprising 119 range states.[13] Seventy-nine countries and the European Union ("EU") are currently parties to the Agreement.[14] Whilst not focused exclusively on sustainable harvest, it was discussions regarding this issue that initially triggered the decision to develop AEWA,[15] and this remains an area in which the Agreement is especially well-positioned to contribute to waterbird conservation.[16] AEWA's harvest-related provisions are also the most detailed aspect of the Agreement's legal text and the aspect of the Agreement that has generated the most controversy.[17]

A concern of several countries and hunting organizations during AEWA's initial drafting was that the Agreement would constitute a *de facto* expansion of the EU Birds Directive,[18] imposing rigid, protectionist restrictions on hunting activities.[19] The text that was ultimately adopted is, in some respects, considerably less restrictive than that of the Birds Directive.[20] Nevertheless, the Agreement prescribes various prohibitions and other restrictions regarding harvest, and concerns are occasionally voiced about these limitations. For instance, historically the Russian Federation has pointed to aspects of these provisions as presenting a hurdle to its accession to AEWA.[21] Some stakeholders are also of the view that certain restrictions are in need of relaxation,[22] while others consider aspects of AEWA's approach to be too permissive of harvest.[23] Beyond these tensions, difficulties arise insofar as AEWA's harvest-related provisions are extremely complex and, in places, unclear, resulting in occasional misunderstanding of, or disagreements over, their meaning.[24] A sound understanding of AEWA's restrictions on harvest, and the manner in which these interact with one another, is

13. AEWA, *supra* note 11, annexes 1, 2.

14. AEWA, *Parties and Range States*, https://perma.cc/J49L-H2SX (last visited Sept. 1, 2019).

15. GERARD C. BOERE, THE HISTORY OF THE AGREEMENT ON THE CONSERVATION OF AFRICAN-EURASIAN MIGRATORY WATERBIRDS: ITS DEVELOPMENT AND IMPLEMENTATION IN THE PERIOD 1985-2000, WITHIN THE BROADER CONTEXT OF WATERBIRD AND WETLAND CONSERVATION 25 (2010), https://perma.cc/AH35-3NHJ.

16. Melissa Lewis, *Migratory Waterbird Conservation at the Flyway Level: Distilling the Added Value of AEWA in Relation to the Ramsar Convention*, 34 Pace Envtl. L. Rev. 1, 66-68 (2016), https://perma.cc/ZRF2-JJSW (providing an overview of AEWA's role regarding waterbird harvest and commenting that this is "an area in which the Agreement has a particularly strong role to play").

17. *Id.*

18. Directive 2009/147/EC, of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds, 2010 O.J. (L 20) 7 [hereinafter Birds Directive].

19. BOERE, *supra* note 15, at 35, 52.

20. Examples of where this is the case are provided throughout the Article.

21. BOERE, *supra* note 15, at 68.

22. *See infra* III.B (discussing hunters' concerns regarding AEWA's strict prohibition of the harvest of certain populations).

23. *See infra* Parts IV.B (highlighting a concern raised by the EU regarding AEWA's acceptance of various methods of harvest when used for livelihood purposes), V.C (discussing some stakeholders' opposition to AEWA's promotion of the harvest of populations whose abundance is rapidly increasing).

24. *See, e.g., infra* Part III.C.1(b)(2) (exploring the interpretation of AEWA, *supra* note 11, annex 3 ¶ 2.1.1).

obviously essential—not only for parties endeavoring to comply with their AEWA commitments, but also for the Agreement's bodies when formulating harvest-related guidance (whether general or species-specific), when presented with allegations of non-compliance, and when determining whether or how to adjust the Agreement's legal text. Such an understanding can also enable non-party range states to more accurately weigh the potential costs and benefits of AEWA accession. However, this aspect of AEWA has thus far received little attention from legal scholars.

This Article seeks, first and foremost, to critically examine the restrictions that AEWA prescribes regarding the harvest of migratory waterbirds and the conditions under which parties may allow such harvest without violating the Agreement. In doing so, the Article identifies and suggests potential solutions to various interpretive uncertainties, further highlighting both practical hurdles that may be encountered in satisfying the Agreement's requirements and concerns that have been raised regarding aspects of its approach. In light of the latter, the Article's second objective is to examine the potential for adjusting AEWA's restrictions on harvest in the future. Given some stakeholders' initial concerns regarding the Birds Directive's influence on AEWA, the Article's third aim is to identify the ways in which the Directive, and the guidance which supports the implementation of both it and its counterpart (the EU Habitats Directive[25]), have influenced AEWA's approach to harvest regulation. Observations regarding this influence are therefore woven throughout the Article.

The Article builds upon a previous paper in which the author explored various interpretive complexities that have arisen from drafters' attempt to align portions of AEWA's legal text with both the CMS and the Birds Directive.[26] It does not attempt to explore in depth the extent to which waterbird harvest *should* be permitted or the objective validity of claims regarding the utility of harvest. Rather, it focuses on the extent to which harvest *can be* allowed within AEWA's existing legal framework and, where pressure exists to adjust this approach, the options for doing so if parties ultimately deem it desirable. The Article also does not aim to assess the extent to which parties' domestic legislation currently complies with AEWA's harvest-related provisions or the extent to which existing legislation is enforced and complied with in practice. Notably, however, parties' progress in providing legal protection for relevant AEWA populations was recently assessed as highly insufficient and has consequently been identified as an aspect of the Agreement's implementation that requires future prioritization and support.[27] As

25. Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, 1992 O.J. (L 206) 7 [hereinafter Habitats Directive], https://perma.cc/W8UZ-SCLG.

26. Melissa Lewis, *Deciphering the Complex Relationship Between AEWA's and the Bonn Convention's Respective Exemptions to the Prohibition of Taking*, 22 J. INT'L WILDLIFE L. & POL'Y 173 (2019).

27. UNEP/AEWA Secretariat, *Final Report on the Implementation of the AEWA Strategic Plan 2009-2018*, AEWA/MOP7.10, 11, 15 (Oct. 5, 2018); UN Environment World Conservation Monitoring

alluded to above, a prerequisite to parties establishing adequate AEWA-implementation legislation is that they fully appreciate the Agreement's provisions and their implications for harvest. Finally, the Article focuses specifically on the harvest of *waterbirds*, rather than other taxa. It therefore does not delve into AEWA's provisions on fisheries management.[28] Nevertheless, several of the Agreement's provisions have implications for the harvest of both waterbirds and other species, and this is noted where relevant.

Part I sets the stage for the Article's analysis by providing a brief overview of the conservation threats and benefits associated with waterbird harvest, the divergence in states' situations and attitudes concerning harvest, and several key considerations in ensuring that the harvest of migratory species is ecologically sustainable. This Part of the Article further presents an overview of sustainable use within the broader context of the Bonn Convention, which is relevant, *inter alia*, because the Convention influences the manner in which several of AEWA's provisions are interpreted. Part II introduces readers to AEWA's structure and provisions, the normative and institutional tools at its disposal, and their relevance for promoting sustainable harvest. It additionally examines the implications of AEWA's "Fundamental Principles" for the interpretation of the Agreement's provisions on harvest. These principles are especially important for determining the levels of waterbird harvest permitted by the Agreement, as well as appropriate regulatory responses in the face of uncertainty concerning, *inter alia*, the extent of harvest and its impacts on waterbird populations. The remainder of the Article proceeds to unpack the nuances of AEWA's constraints on waterbird harvest. Part III is dedicated to a discussion of populations in respect of which harvest is prohibited in principle (in the sense that AEWA prescribes full legal protection); while Part IV discusses populations for which harvest is permitted in principle but is subjected to various restrictions aimed at ensuring sustainability. The legal analysis in these two Parts of the Article focuses both on the scope of AEWA's prohibitions and the permissible deviations therefrom, and on complications that arise in interpreting, applying, and potentially adjusting these prohibitions and exemptions. Part V then examines the circumstances in which waterbird harvest either is *required* by AEWA's legal text or has been recommended by the Agreement's guidance documents. It highlights the legal considerations that must be taken into account in such instances, and the complexities that have arisen due to states' more onerous obligations under other international instruments.

The Article employs standard international law research methodology, identifying relevant provisions of AEWA and interpreting these in accordance with the

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Centre [UNEP-WCMC], *Analysis of the AEWA National Reports for the Triennium 2015-2017*, AEWA/MOP7.12, 117-18 (Oct. 5, 2018) (both identifying AEWA Strategic Plan targets that parties' national reports indicate have not been met and for which focus should therefore be a priority).

28. AEWA, *supra* note 11, annex 3 ¶¶ 4.3.7-4.3.8.

rules codified in the Vienna Convention on the Law of Treaties.[29] In interpreting specific provisions, the Article therefore considers the ordinary meaning of the terms used, in their context and in light of AEWA's object and purpose.[30] It further considers the existence of "[a]ny subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions,"[31] as reflected in guidance documents that the AEWA Meeting of the Parties ("MoP") has adopted by consensus. Where possible, the interpretations derived through this approach are confirmed by considering the drafting history of particular provisions,[32] as reflected in draft versions of the Agreement and the justifications that supported the amendments introduced since its adoption. Where a provision has yet to be authoritatively interpreted by the AEWA MoP but has been interpreted by the Agreement's Technical Committee or Standing Committee, this provides an indication of the approach that might ultimately be agreed by the parties[33] and is therefore taken into consideration. Interpretations that have been elaborated under other legal instruments using the same terminology as AEWA are similarly considered. These are useful insofar as the AEWA MoP, while not obliged to align its interpretations with those of other instruments, has often done so in practice.[34] The Article is further informed by relevant social science and ecological literature concerning the harvest of waterbirds and other species; by reports on harvest-related discussions in AEWA meetings and on parties' implementation of, and reservations to, the Agreement's provisions; and by the author's past involvement in a variety of AEWA processes.

I. BACKGROUND

Harvest presents both threats and opportunities for waterbird conservation. However, variation exists in states' acceptance of this practice, as well as in the motivations for waterbird harvest, the methods through which it is achieved, and the availability of data to inform harvest management. Understanding these differences, as well as the potential impacts of harvest and the conditions necessary for achieving the sustainable harvest of shared species, is important if one is to appreciate AEWA's current approach to harvest regulation, the difficulties that some states encounter in complying with this approach, and the arguments that some stakeholders have advanced concerning its adjustment. This Part therefore

29. Vienna Convention on the Law of Treaties, May 22, 1969, 1155 UNTS 331 [hereinafter VCLT].
30. *Id*. art. 31(1).
31. *Id*. art. 31(3).
32. *Id*. art. 32.
33. AEWA, *supra* note 11, art. VII(3) (mandating the Technical Committee to, *inter alia*, provide both the MoP and parties with technical advice, and make recommendations to the MoP concerning AEWA's implementation); AEWA Res. 2.6, *Institutional Arrangements: Standing Committee*, ¶ 1 (Sept. 25–27, 2002), https://perma.cc/B6MV-K3JR (mandating the Standing Committee to, *inter alia*, make recommendations to the MoP and carry out interim activities on its behalf).
34. Examples of this are provided throughout the Article.

provides a basis for interrogating AEWA's harvest-related provisions by briefly outlining the threats and benefits associated with waterbird harvest, the differences in states' situations and approaches concerning harvest, and accepted conditions for ensuring that this activity is ecologically sustainable. It also provides a brief overview of the Bonn Convention and its position on sustainable use. This is relevant, firstly, because the Convention influences the manner in which several of AEWA's provisions are interpreted and, secondly, because it provides a useful indication of the role that ancillary instruments within the CMS Family may play in respect of harvest management.

A. CONSERVATION THREATS AND BENEFITS ASSOCIATED WITH WATERBIRD HARVEST

There are various ways in which harvest can threaten the conservation of migratory waterbirds, justifying the imposition of certain restrictions. Especially when combined with other pressures, the cumulative impacts of harvest can result in overexploitation and have other negative effects on the population dynamics of target species. Indeed, history offers examples of waterbird species, such as the great auk, *Pinguinus impennis*, being completely extirpated by overexploitation,[35] and unsustainable harvest remains a key driver of population decline within AEWA's Agreement Area.[36]

Apart from potentially threatening the survival of target populations, harvest can impact non-target populations from which birds are accidentally taken due to the use of non-selective methods or misidentification. An example of the latter is the western palearctic population of lesser white-fronted goose, *Anser erythropus*, whose high mortality is partially attributed to accidental shooting by hunters targeting the, visually very similar, greater white-fronted goose, *Anser albifrons*.[37] Further, when lead shot is used for hunting in wetlands, this not only degrades waterbird habitat, but can result in additional mortality and sub-lethal physiological impacts when ingested by waterbirds mistaking it for grit.[38] Harvest can also cause significant disturbance to waterbirds, which may impact their behavior, distribution and population dynamics.[39]

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35. BirdLife International, *Pinguinus impennis. The IUCN Red List of Threatened Species*, 4 (2016), https://perma.cc/A8BD-JFJU (explaining that the great auk was driven to extinction in the nineteenth century by hunting for its feathers, meat, fat and oil, as well as specimen collecting).

36. Nina Mikander, *The African-Eurasian Migratory Waterbird Agreement. International Conservation and Sustainable Use of Migratory Waterbirds*, 54 ARCHIV DES VÖLKERRECHTS 505, 512 (2016).

37. Tim Jones et al., *International Single Species Action Plan for the Conservation of the Lesser White-fronted Goose (Western Palearctic population), Anser erythropus*, AEWA Technical Series No. 36, 29 (Oct. 2008).

38. GERARD BOERE & TIM DODMAN, THE FLYWAY APPROACH TO THE CONSERVATION AND WISE USE OF WATERBIRDS AND WETLANDS: A TRAINING KIT – MODULE 1: UNDERSTANDING THE FLYWAY APPROACH TO CONSERVATION 72-73 (2010), https://perma.cc/T6BG-NA73; Niels Kanstrup et al., *Hunting with lead ammunition is not sustainable: European perspectives*, 47 AMBIO 846, (2018).

39. Jesper Madsen & Anthony D. Fox, *Impacts of Hunting Disturbance on Waterbirds – A Review*, 1 WILDLIFE BIOLOGY 193 (1995).

However, there are also respects in which harvest can positively contribute to waterbird conservation and thereby further the objectives of conservation treaties, such as AEWA. Lethal measures play an important role in controlling non-native species that threaten native waterbird populations.[40] Harvest may also be necessary to control *native* populations of waterbirds that pose a threat to populations with a poorer conservation status—for instance, through predation.[41] When appropriately managed, waterbird harvest additionally has the potential to generate funding and/or incentives for these species' conservation. For example, the United States' Federal Duck Stamp (which hunters are required to purchase) has had remarkable success in raising funds for the conservation of waterfowl habitat,[42] and there are areas in Europe in which arable land has been converted to wetlands because of the value of, *inter alia*, waterfowl harvest.[43]

B. DEALING WITH BIRDS OF DIFFERENT FEATHERS: THE NEED TO ACCOMMODATE STATES' DIVERGENT CIRCUMSTANCES AND APPROACHES TO CONSERVATION WHILE ENSURING THAT HARVEST IS ECOLOGICALLY SUSTAINABLE

Although harvest is not *inherently* detrimental to waterbird conservation, and in some instances has the potential to offer conservation benefits, not all states are equally accepting of such practice. In her opening statement to the first session of the AEWA MoP, Dutch State Secretary for Agriculture, Nature Management and Fisheries Geke Faber described the international community as being made up of "birds of different feathers, different characters and different preferences."[44] These differences are especially evident in states' attitudes towards the deliberate killing or capture of wildlife. Indeed, this point was also highlighted by Ms. Faber, who, after (somewhat controversially) commenting that the Netherlands had banned the hunting of most migratory waterbirds and that she would like to see similarly strict restrictions in other countries, conceded that other states "have a different history and different problems, and that they may therefore choose different solutions."[45] Dutch law (at least in its restriction of hunting, as opposed to harvest for other purposes) takes a largely protectionist

40. *See infra* Part V.A.

41. *See infra* Part V.B.

42. *Migratory Bird Hunting and Conservation Stamp*, U.S. FISH & WILDLIFE SERV., https://perma.cc/K7V2-UE7S (last visited Jan. 12, 2019).

43. Andy J. Green & Johan Elmberg, *Ecosystem Services Provided by Waterbirds*, 89 BIOLOGICAL REVS. 105, 108 (2014). *See further What is the FACE Biodiversity Manifesto*, FACE, https://perma.cc/E6N8-ETXD (last visited Jan. 12, 2019) (providing examples of European hunters' contributions to wildlife conservation).

44. UNEP/AEWA Secretariat, *Proceedings of the First Session of the Meeting of the Parties to the Agreement on the Conservation of African-Eurasian Migratory Waterbirds*, 128 (Nov. 6–9, 1999), https://perma.cc/X59A-KRCC.

45. *Id.*

approach to conservation,[46] rather than one that facilitates, or even promotes as a conservation strategy, the harvest of animals at sustainable levels.[47] The extent to which each country endorses either approach is influenced by a variety of factors, such as tradition, culture, and ethics.[48] Moreover, in the developing world, ideas about integrating protectionist goals with the use of wildlife have evolved in tandem with ideas about community-based conservation.[49]

Not only do states differ in the extent to which they consider the harvesting of wildlife to be acceptable, but there is also considerable variation in the purposes for which, and methods through which, harvest occurs in different communities. Historically, the primary motivation for harvesting waterbirds was to supply food.[50] This remains a significant driver in parts of the world, such as the Arctic and the Sahel, where birds are one of the most accessible sources of protein and are harvested for subsistence and livelihoods purposes.[51] Other contemporary motivations for harvest include cultural, commercial, recreational and management incentives, though motivations are seldom exclusive.[52] As in the day of the arrow stork, harvest also continues to be achieved in a variety of ways, with the use of firearms being the primary method in developed countries, and the use of other instruments and methods, such as nets, traps and snares, being more prevalent in developing countries.[53] Notably, however, data concerning, *inter alia*, the types of, and motivations for, waterbird harvest and the ecology of these species is more sparse in some regions than in others.[54]

One of the challenges facing a treaty such as AEWA, which aims to conserve species whose range spans not just multiple countries but multiple continents, is how to accommodate range states' divergent circumstances and approaches to

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46. *See, e.g.*, Nederlandse Organisatie voor Jacht en Grondbeheer, *Hunting in the Netherlands*, https://perma.cc/4CKW-EPSX (last visited Jan. 6, 2019) (explaining that only five species are huntable as game in the Netherlands, but that others may be harvested for damage control). *See also* BOERE, *supra note* 15, at 30, 75–76, 103 (explaining that the Dutch stance regarding hunting led hunting organizations to repeatedly express concern regarding the Netherlands' key role in the development of AEWA).

47. *See generally* Jon M. Hutton & Nigel Leader-Williams, *Sustainable Use and Incentive-Driven Conservation: Realigning Human and Conservation Interests*, 37 ORYX, 215 (2003); John G. Robinson, *Using 'Sustainable Use' Approaches to Conserve Exploited Populations*, *in* CONSERVATION OF EXPLOITED SPECIES 485 (John D. Reynolds et al. eds., 2001).

48. Kanstrup, *supra* note 3, at 100 (discussing the societal elements influencing the political sustainability of waterbird harvest).

49. *See generally* William Adams & David Hulme, *Conservation & Community: Changing Narratives, Policies & Practices in African Conservation*, *in* AFRICAN WILDLIFE & LIVELIHOODS: THE PROMISE & PERFORMANCE OF COMMUNITY CONSERVATION 9 (David Hulme & Marshall Murphree eds., 2001) (discussing community-based approaches to conservation—i.e. bottom-up approaches that involve local communities in, and allow them to enjoy the benefits from, wildlife management).

50. Kanstrup, *supra* note 3, at 100–01.

51. Kanstrup, *supra* note 3, at 100–01; WETLANDS INT'L, *supra* note 4, at 14.

52. Kanstrup, *supra* note 3, at 100–01; WETLANDS INT'L, *supra* note 4, at 14; Madsen et al., *supra* note 3, at 10 (all discussing the various motivations for waterbird harvest).

53. Kanstrup, *supra* note 3, at 100, 102.

54. Madsen et al., *supra* note 3, at 10, 15.

conservation while ensuring that, to the extent that harvest is permitted, it is ecologically sustainable.[55] Sustainable harvest does not hinge upon all range states taking an identical approach to harvest regulation. It does, however, depend upon harvest levels being "adjusted to the capacity of the exploited population at any point in time."[56] For migratory populations, the determination of these levels needs to be made at the flyway scale, irrespective of jurisdictional boundaries. De Klemm and Shine describe these two conditions as "rational management" and "unit management,"[57] and they further emphasize the need for "ecological management." This third condition involves preserving "the ecological conditions that are necessary to the life and development of exploited species,"[58] and it reflects the recognition that it makes little sense to rigidly regulate a population's exploitation without addressing other, potentially more significant, drivers of its decline.[59] Similar sentiments are echoed in various international policy documents. For instance, the *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* stress the importance of, *inter alia*, managing natural resources at the appropriate spatial scale, monitoring and adjusting their management over time, and making "arrangements for international cooperation where multinational decision-making and coordination are needed."[60]

C. THE BONN CONVENTION, ITS LINKAGES TO AEWA, AND THE ROLE OF AGREEMENTS IN CONTROLLING AND MANAGING HARVEST

While AEWA is an independent treaty, an examination of the Agreement's legal text cannot be entirely divorced from that of its parent Convention (see *infra* Box 1). The Bonn Convention supports the conservation of migratory species, firstly, by requiring parties to implement specified conservation measures in respect of the endangered migratory species listed on Appendix I.[61] The most

55. "Sustainable use" is commonly defined as "the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations." Convention on Biological Diversity, Jun. 5, 1992, 1760 UNTS 79 [hereinafter CBD], 1; AEWA, *supra* note 11, annex 3 n.3. As suggested by this definition, for harvest to be considered ecologically sustainable, it must cause neither the extinction of a population nor its long-term decline. Kanstrup, *supra* note 3, at 99–100.

56. Cyrille de Klemm & Clare Shine, *Biological Diversity Conservation and the Law: Legal Mechanisms for Conserving Species and Ecosystems*, IUCN ENVTL. POL'Y & L. PAPER NO. 29, 136 (1993).

57. *Id*.

58. *Id*. at 137.

59. *See further* Cyrille de Klemm, *The Problem of Migratory Species in International Law*, *in* GREEN GLOBE Y.B. OF INT'L CO-OPERATION ON ENV'T AND DEV. 67, 75-76 (Helge Ole Bergesen & Georg Parmann eds., 1994).

60. *Addis Ababa Principles*, *supra* note 8, principles 4, 7, 8.

61. *See further* Melissa Lewis & Arie Trouwborst, *Bonn Convention on the Conservation of Migratory Species of Wild Animals 1979*, *in* ELGAR ENCYCLOPEDIA OF ENVIRONMENTAL LAW, VOL V: MULTILATERAL ENVIRONMENTAL TREATIES 25 (Malgosia Fitzmaurice et al. eds., 2017) (providing a concise overview of the CMS).

stringently-framed requirement is that the "taking" of animals from Appendix I species (that is, the "taking, hunting, . . . capturing, harassing, [or] deliberate killing" of such animals and attempts to engage in such conduct[62]) be prohibited, subject to limited exceptions.[63] This obligation is incorporated into AEWA for certain populations of migratory waterbirds.[64] So is the Convention's definition of "taking,"[65] which is relevant for interpreting several additional provisions of the Agreement. The scope of this definition and its implications for harvest are examined in detail in Part III.A below.

Rather than prescribing specific conservation measures for Appendix II species, the CMS requires that parties endeavor to conclude Agreements in respect thereof.[66] AEWA is an example of such an instrument.[67] The Convention specifies that the object of concluding Agreements is to restore species to, or maintain them at, a "favourable conservation status" ("FCS").[68] This is reflected in AEWA's provisions.[69] The concept of FCS, as defined by the CMS, is therefore central to AEWA's functioning. The implications of this for harvest receive further consideration in Part II.C below.

The Bonn Convention also provides guidance on the scope and content of Agreements, calling for each instrument, "[w]here appropriate and feasible," to provide for, *inter alia*, "measures based on sound ecological principles to control and manage the taking of the migratory species."[70] Notably, early discussions on the development of an international convention on migratory species envisaged considerably more detailed provisions on this issue. For instance, a draft text prepared by the IUCN in 1974 required that ancillary instruments provide for the organization of periodical censuses to determine the maximum number of animals that could be harvested each year, as well as procedures for dividing this quota between range states.[71] Such an approach would have been consistent with the conditions for sustainable harvest discussed above. However, it ultimately was not reflected in the adopted text. Nor was the IUCN's 1976 suggestion that species for which Agreements have been concluded be removed from Appendix I in order to provide an incentive for the conclusion of such instruments and allow

62. CMS, *supra* note 12, art. I(1)(i).

63. *Id*. art. III(5).

64. AEWA, *supra* note 11, art III(2)(a).

65. *Id*. art. I(2) (providing that the terms defined in art. I(1)(a)-(k) of the CMS "shall have the same meaning, *mutatis mutandis*, in this Agreement").

66. CMS, *supra* note 12, art. IV(3). Unless otherwise indicated, this Article uses the term "Agreement" to refer to those instruments called for by CMS art. IV(3), rather than art. IV(4).

67. AEWA, *supra* note 11, art. I(3).

68. CMS, *supra* note 12, art. IV(3).

69. *E.g*., AEWA, *supra* note 11, art. II(1) (identifying the restoration and maintenance of FCS as one of the Agreement's "Fundamental Principles").

70. CMS, *supra* note 12, art. V(5)(j).

71. *Draft International Convention on the Conservation of Migratory Species*, art. V(2)(a)-(b) (draft, Jun. 1974) (copy on file with author).

them to manage exploitation in a sustainable manner.[72] Subsequent to the Bonn Convention's entry into force, its Conference of the Parties ("CoP") has, however, been prepared to accept the potential for sustainable harvest as a justification for excluding populations from Appendix I.[73] It has further advised that Agreements should "provide for the sustainable use of species where this is consistent with their conservation"[74] and acknowledged that "sustainable use (both consumptive and non-consumptive) may provide incentives for conservation and restoration because of the social, cultural and economic benefits that people could derive from that use."[75] Thus, although it requires the strict protection of certain species, the Convention does not advocate for an exclusively protectionist approach[76] or expect that such an approach be taken by its ancillary Agreements.

II. OVERVIEW OF AEWA AND ITS APPROACH TO REGULATING WATERBIRD HARVEST

Although the Bonn Convention does not call for Agreements to strictly prohibit taking, the majority of its ancillary treaties are protectionist in outlook and do not provide detailed regulatory regimes to "manage the taking of migratory species."[77] In contrast, AEWA prescribes a complex collection of measures for regulating taking and has established institutional structures to coordinate their implementation at flyway-level. This Part of the Article briefly introduces readers to the Agreement's structure and harvest-related provisions, and the normative and institutional tools that support these provisions' implementation. It additionally examines the "Fundamental Principles" that inform AEWA's implementation and their implications for interpreting the Agreement's restrictions on harvest.

A. AEWA'S STRUCTURE AND HARVEST-RELATED PROVISIONS

AEWA is structured as a central Agreement text and three annexes, the latter being easier to amend than the former.[78] The annexes define the area and species to which the Agreement applies.[79] They also contain a legally binding "Action

72. *Revised Draft of Proposed Convention on the Conservation of Migratory Species of Wild Animals* (Draft R. 1), art. III(7) (Dec. 1976) (copy on file with author); *Notes on Revision of Draft R.1* (Dec. 1976) (copy on file with author).

73. *See*, *e.g.*, CMS Res. 10.28, *Saker Falcon, Falco cherrug* (Nov. 20-25, 2011), https://perma.cc/B826-ABSY (deciding that, in those instances in which the sustainable taking of Saker falcons from the wild is possible, parties may request exclusions from the species' Appendix I listing).

74. CMS Res. 4.4, *Strategy for the Future Development of the Convention*, annex ¶ 16 (Jun. 7-11, 1994), https://perma.cc/TWB3-SLM7.

75. CMS Res. 8.1, *Sustainable Use* (Nov. 20-25, 2005), https://perma.cc/F6MB-S8MQ.

76. *See also* MICHAEL BOWMAN ET AL., LYSTER'S INTERNATIONAL WILDLIFE LAW 538 (2nd ed., 2010) (discussing the Bonn Convention's balancing of protectionist and exploitative approaches).

77. *See* Lewis, *supra* note 26, at 174, fn.5 (identifying relevant taking prohibitions in the treaties belonging to the CMS Family).

78. AEWA, *supra* note 11, art. X(4)-(5).

79. *Id*. annexes 1 & 2.

Plan" and a table ("Table 1"), which divides the Agreement's 255 species into 554 populations and assigns these to particular columns and categories according to their conservation status.[80] The Agreement text identifies the precautionary principle and the maintenance and restoration of FCS as fundamental principles[81] (see *infra* Part II.C). Article III further prescribes "General Conservation Measures"[82] regarding harvest and a variety of other issues. These are supplemented by a collection of more detailed conservation commitments, described in the Agreement's Action Plan and applying to populations listed in Table 1.[83]

The preamble to AEWA's Agreement text expresses parties' awareness of the "ecological, social, cultural and recreational benefits accruing from the taking of certain species of migratory waterbirds," but it additionally emphasizes that any taking of these species "must be conducted on a sustainable basis, taking into account the conservation status of the species concerned over their entire range as well as their biological characteristics."[84] As this preambular language, read with AEWA's fundamental principles, indicates, the Agreement accepts harvesting as a legitimate use of waterbirds, provided that it occurs sustainably and does not jeopardize the maintenance or restoration of FCS. Sustainable use is also explicitly entrenched as a legal commitment in AEWA's Agreement text,[85] while the AEWA Action Plan repeatedly stresses that where harvest occurs, it must be sustainable.[86] The Action Plan also explicitly emphasizes the need to take populations' full geographic range into account in ensuring that harvest is sustainable.[87]

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80. *Id*. annex 3.

81. *Id*. art. II.

82. *Id*. art. III.

83. *See also* Rachelle Adam, *Waterbirds, the 2010 Biodiversity Target, and Beyond: AEWA's Contribution to Global Biodiversity Governance*, 38 ENVTL L. 87 (2008); Melissa Lewis, *AEWA at Twenty: An Appraisal of the African-Eurasian Waterbird Agreement and its Unique Place in International Environmental Law*, 19 J. INT'L WILDLIFE L. & POL'Y 22 (2016); Melissa Lewis & Arie Trouwborst, *Agreements under the Convention on the Conservation of Migratory Species of Wild Animals*, *in* ELGAR ENCYCLOPEDIA OF ENVIRONMENTAL LAW, VOL. V: MULTILATERAL ENVIRONMENTAL TREATIES 35 (Malgosia Fitzmaurice et al. eds., 2017) (for a more detailed overview of AEWA's legal text and institutional framework).

84. AEWA, *supra* note 11, preamble.

85. *Id*. art. III(2)(b) (providing that parties shall "ensure that any use of migratory waterbirds is based on an assessment of the best available knowledge of their ecology and is sustainable for the species as well as for the ecological systems that support them").

86. *E.g*. *id*. annex 3 ¶¶ 2.1.1, 2.1.2 (*chapeaux*), 2.1.2(b) (*see* discussion *infra* Parts III & IV).

87. *Id*. annex 3 ¶ 4.1.1 (providing that "Parties shall cooperate to ensure that their hunting legislation implements the principle of sustainable use as envisaged in this Action Plan, *taking into account the full geographical range of the waterbird populations concerned* and their life history characteristics" (emphasis added)). Although this provision only refers to harvest in the form of hunting, the Agreement's preambular recognition that the taking of migratory waterbirds needs to consider species' conservation status "over their entire range" informs the interpretation of AEWA's other harvest-related provisions (VCLT, *supra* note 29, art. 31(2), recognizing that a treaty's preamble forms part of the context relevant for interpreting its provisions).

The implication is that parties must consider the cumulative impact of harvest along entire flyways.[88]

The requirement that use be sustainable applies in respect of all AEWA-listed populations, regardless of their individual categorizations. Some other harvest-related provisions in the AEWA Action Plan are similarly general in nature. These include requirements concerning the phasing out of lead shot for hunting in wetlands, reduction of illegal taking, establishment of hunting clubs and organizations, promotion of proficiency tests for hunters, implementation of emergency measures (which may need to include temporary hunting bans[89]), and wise and sustainable use of wetlands.[90] Note should further be taken of the Action Plan's provisions on research and monitoring, and the relevance of these to waterbird harvest. States' ability to determine sustainable levels of harvest depends on the availability of reliable data concerning not only population size,[91] but various other factors, such as population trends and levels of harvest mortality.[92] AEWA's parties undertake to collect various types of data and make it available.[93] Admittedly, these obligations are expressed in qualified language.[94] However, to the extent that the sustainability of harvest cannot be ensured without such information, its collection (whether through legal requirements or voluntary schemes) is arguably a prerequisite for parties' compliance with their more rigorously-framed obligation to ensure sustainable use. The question of whether it is permissible to allow harvest to occur in the absence of reliable data is further explored in the discussion of the precautionary principle below.

Beyond these requirements, the AEWA Action Plan prescribes a complex regime of harvest restrictions and other protections in respect of the populations listed in Columns A and B of Table 1. These are explored in detail in Parts III and IV below (*see also infra* Box 2). The restrictions are similar to those appearing, to varying degrees, in other regional conservation instruments. However, there are

88. *See also* Lydia Slobodian et al., *Guidelines on National Legislation for the Protection of Species of Migratory Waterbirds and their Habitats*, AEWA Technical Series No. 53, 26 (Nov. 2015, 2d ed.) (advising AEWA's parties that, when drafting legislative provisions on hunting, "it is especially important to remember that the taking of birds from migratory populations has a cumulative impact along their flyways" and that "what constitutes sustainable take for any one country [therefore] depends on the level of taking in all other range states").

89. Wetlands Int'l, *Guidelines on Identifying and Tackling Emergency Situations for Migratory Waterbirds*, AEWA Technical Series No. 16, 6 (2005) (discussing shooting bans as a measure to assist waterbirds during extreme weather conditions).

90. AEWA, *supra* note 11, annex 3 ¶¶ 4.1.4, 4.1.6-4.1.8, 2.3, 3.2.3, 3.3.

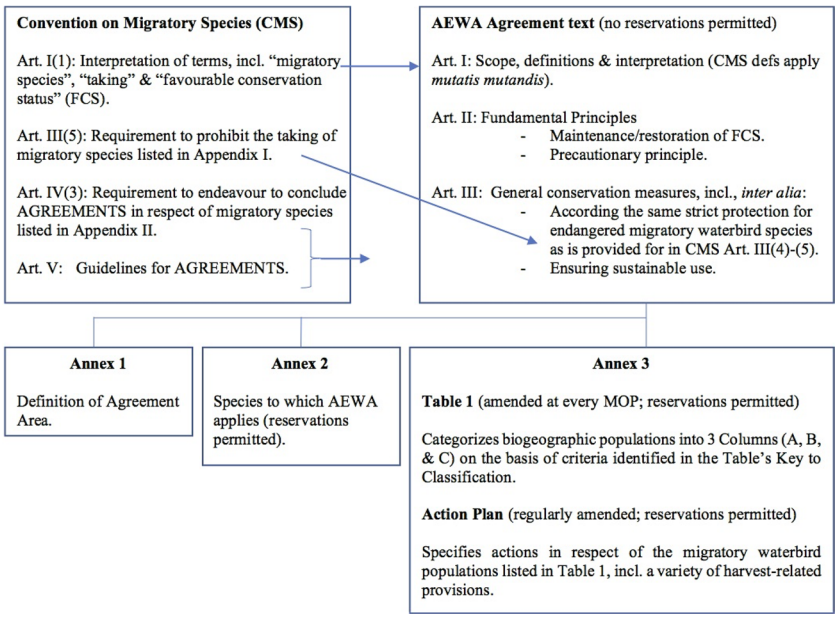
91. Johan Elmberg et al., *The Scientific Basis for New and Sustainable Management of Migratory European Ducks*, 12 WILDLIFE BIOLOGY 121, 123 (2006) (explaining that "knowing the sheer numbers of the different species really does not do the job when it comes to forecasting population change or to devising sustainable management strategies").

92. *See generally* Madsen et al., *supra* note 3, part 5.

93. AEWA, *supra* note 11, annex 3 ¶¶ 4.1.3, 5.

94. *E.g.*, *id.* annex 3 ¶ 4.1.3 (requiring that parties "cooperate *with a view to* developing a reliable and harmonized system for the collection of harvest data" (emphasis added)), ¶ 5.2 (requiring that parties "*endeavour* to monitor the populations listed in Table 1" (emphasis added)).

differences in the level of protection that specific species, or biogeographic populations thereof, receive under each instrument.[95] This has led to several complications, which are touched upon in the course of this Article.



BOX 1: Overview of AEWA's Structure and Linkages to the CMS

B. AEWA'S NORMATIVE AND INSTITUTIONAL TOOLS AND THEIR RELEVANCE FOR WATERBIRD HARVEST

Various types of normative instruments have been adopted by AEWA's MoP to guide parties and other stakeholders in implementing the Agreement and to inform the interpretation of its provisions. These include a Strategic Plan; a dedicated Plan of Action to guide the Strategic Plan's implementation in Africa; a comprehensive series of "Conservation Guidelines"; a collection of less detailed, issue-specific resolutions; and several species- or population-specific international species action plans and management plans ("ISAPs" and "ISMPs").[96] The sustainable harvest of waterbirds has received considerable attention in this growing body of guidance,[97] although gaps in data do not currently allow for very

95. *See generally* Lewis, *supra* note 83, at 25–26 (detailing the different instruments and their applicability).

96. *See generally id*. at 34–38, 45–47.

97. *See*, *e.g.*, AEWA, *AEWA Strategic Plan 2019-2027*, AEWA/MOP7.15, 5 (Oct. 2018), https://perma.cc/ML7X-B9HZ [hereinafter *AEWA Strategic Plan 2019-2027*]; Madsen et al., *supra* note 3; AEWA Res. 6.4, *Conservation and Sustainable Use of Migratory Waterbirds* (Nov. 9-14, 2015), https://perma.cc/N3WC-CAAD.

BOX 2: AEWA'S TABLE 1 CATEGORIZATIONS AND ACCOMPANYING RESTRICTIONS ON HARVEST

Column & Category	# of populations*	Harvest restrictions
Col. A, Cat. 1	122	Taking prohibited (para.** 2.1.1) unless para. 2.1.3's conditions for exemption are satisfied.
Col. A, Cat. 2 or 3 w/out asterisk	85	Taking prohibited (para. 2.1.1) unless para. 2.1.3's conditions for exemption are satisfied.
Col. A, Cat. 2 or 3 with asterisk, & Cat. 4	25	Hunting permitted if sustainable & within the framework of an international species action plan (ISAP) endeavoring to implement adaptive harvest management (AHM) (para. 2.1.1). All other taking of birds only permitted if para. 2.1.3's conditions for exemption are satisfied.
Col. B, Cat. 1 or 2	155	Taking prohibited during stages of reproduction, rearing & return to breeding grounds if this would have an unfavorable impact on conservation status (para. 2.1.2(a)). Certain methods of taking prohibited unless sustainable and occurring for livelihood purposes (para. 2.1.2 (b)), or unless para. 2.1.3's conditions for exemption are satisfied.
Col. C, Cat. 1	167	No dedicated restrictions on taking, but use must be sustainable (art. III(2)(b)), such that the population is maintained in an FCS (art. II(1)).***

*Numbers based on MoP7 amendments (entered into force March 2019).
**All paragraph numbers refer to relevant provisions of the AEWA Action Plan.
***In addition to the restrictions explicitly prescribed for each category, a population's spatial & temporal overlap with populations in a higher protection category may necessitate further restrictions in order to protect the latter populations.

precise guidance on all harvest types occurring in the Agreement Area.[98] The Agreement and its partners have also established a variety of mechanisms to support, coordinate and monitor parties' implementation of their AEWA commitments. These include, for instance, International Species Working Groups;[99] an online tool to assist parties in identifying the AEWA-protected species occurring in their territories and look-alikes thereof;[100] and an Implementation Review

98. Madsen et al., *supra* note 3, at 6, 10.
99. *AEWA International Species Working Groups (ISWG)*, AEWA, https://perma.cc/64BY-PD6S (last visited Jan. 13, 2019).
100. *Guidance*, CRITICAL SITE NETWORK, https://perma.cc/3HV4-5294 (last visited Jan. 13, 2019).

Process ("IRP") for assessing instances of alleged non-compliance.[101] In recognition of the need for sustainability to be achieved through participatory approaches,[102] AEWA's various institutions are relatively inclusive in nature, providing platforms for cooperation and trust-building between, *inter alia*, governments, the international conservation and hunting communities, and the scientific community.[103]

An especially noteworthy aspect of AEWA's work is its increasing emphasis on adaptive harvest management ("AHM") as a means of ensuring that the harvest of waterbirds is sustainable. AEWA defines AHM as "the periodic process of setting hunting regulations based on a system of population and habitat monitoring, harvest-level recording, data analysis and defining regulatory options."[104] The Agreement's Action Plan[105] and the various AEWA guidance documents[106] recognize flyway-level AHM as being appropriate for certain waterbird populations, and that ISAPs and ISMPs provide suitable frameworks for achieving this. The utility of, and controversies that have arisen involving, both types of plans are canvassed in Parts III and V below. Thus far, the Agreement's efforts to implement AHM have focused on populations of European geese, for which the process is currently supported by an AEWA European Goose Management Platform ("EGMP").[107] The EGMP's primary coordinating and decision-making body is the European Goose Management International Working Group ("EGM IWG"), which meets annually to make decisions concerning the conservation and management of populations within its remit. These include decisions on harvest quotas and their division between states. The scientific analysis and proposals on

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101. AEWA Res. 4.6, *Establishment of an Implementation Review Process* (Sept. 15–19, 2008), https://perma.cc/X67W-J3GM.

102. *See*, *e.g.*, *Addis Ababa Principles*, *supra* note 8, principle 9 (explaining the importance of applying an "interdisciplinary, participatory approach . . . at the appropriate levels of management and governance related to use").

103. For instance, membership of the AEWA Technical Committee is reserved not only for regional and thematic experts (including experts in game management and rural economics), but also for three NGOs (AEWA, *supra* note 11, art VII(1)). One of the Committee's NGO members is the International Council for Game and Wildlife Conservation ("CIC"), whose mission is to promote conservation through sustainable use, including hunting. *The CIC*, INT'L COUNCIL FOR GAME & WILDLIFE CONSERVATION, https://perma.cc/S8NN-N433 (last visited Jan. 12, 2019). The international conservation and hunting communities are also represented via observers in AEWA's other institutions and processes. *See further* Mikander, *supra* note 36, at 522 (commenting that AEWA "has managed to establish inter-governmental yet inclusive and transparent processes, through which potentially contentious issues can be addressed and tackled by involving all stakeholders and acting on the basis of best available scientific knowledge and the precautionary principle").

104. AEWA, *supra* note 11, annex 3 n.4.

105. *Id.* annex 3 ¶ 2.1.1 (allowing certain populations to be hunted within the framework of ISAPs through which parties "endeavour to implement the principles of adaptive harvest management").

106. *See*, *e.g.*, *AEWA Strategic Plan 2019-2027*, *supra* note 97, at 18; Madsen et al., *supra* note 3, part 6.

107. *See European Goose Management Platform*, AEWA, https://perma.cc/R2GW-DM39 (last visited Jan. 12, 2019).

which the EGM IWG's decisions are based are provided by an EGMP Data Centre, which also coordinates an International Modelling Consortium.[108]

As reflected in Part I's descriptions of the negotiation of the CMS and of de Klemm and Shine's interwoven concepts of rational management and unit management, the need for a coordinated and adaptive approach to managing the harvest of migratory species has long been recognized. Indeed, a protocol for the AHM of waterfowl has been in place in the United States since the mid-1990s[109] and calls have gradually emerged for a similar system to be introduced in Europe.[110] However, many wildlife managers have historically held the view that such an approach could not be successfully implemented in the European context due to, *inter alia*, the number of countries, languages, and hunting traditions involved; variations in countries' approaches to hunting regulation; and the fact that Europe's monitoring programs for waterbirds are not as advanced as those in North America.[111] AEWA's efforts in respect of geese consequently represent the first attempt to achieve flyway-level AHM in Europe.[112] These efforts have the potential to assist states in satisfying both their AEWA commitments and their sustainable use obligations under other legal instruments[113] that lack similarly advanced platforms for coordinating data-collection and analysis, information-sharing, and decision-making.[114]

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108. *See further* AEWA, *Report of the EGMP Secretariat and Data Centre (2017/2018)*, AEWA/EGMIWG/3.3/Rev.1 (Jun. 6, 2018), https://perma.cc/3SZL-WFUN (providing a more detailed description of the EGMP's institutional structure and functioning).

109. *See generally* Fred A. Johnson et al., *Multilevel Learning in the Adaptive Management of Waterfowl Harvests: 20 Years and Counting*, 39 WILDLIFE SOC'Y BULL. 9 (2015).

110. *E.g.*, Elmberg et al., *supra* note 91, at 125 (calling, in 2006, for the introduction of adaptive harvest management for European duck populations).

111. James D. Nichols et al., *Adaptive Harvest Management of North American Waterfowl Populations: a Brief History and Future Prospects*, 148 J. ORNITHOL. 343, 347–348 (2007) (also providing arguments to counter these concerns).

112. *See further* Mikander, *supra* note 36, at 514–16 (discussing AEWA's efforts to support the AHM of conflict species); Jesper Madsen et al., *Implementation of the First Adaptive Management Plan for a European Migratory Waterbird Population: The Case of the Svalbard Pink-Footed Goose* Anser brachyrhynchus, 46 AMBIO 275 (2017) (discussing AEWA's first test case in AHM).

113. *E.g.*, Convention on the Conservation of European Wildlife and Natural Habitats, Sept. 19, 1979, ETS 104, art. 7(2) [hereinafter Bern Convention] (requiring that "[a]ny exploitation of wild fauna specified in Appendix III shall be regulated in order to keep the populations out of danger, taking into account the requirements of Article 2"). If this approach is ultimately extended beyond Europe, it will also have the potential to support implementation of such instruments as the African Convention on the Conservation of Nature and Natural Resources, Jul. 11, 2003, art. IX(3)(b)(iii), https://perma.cc/QV57-CM6M [hereinafter Revised African Convention] (*e.g.*, art. IX(2)(b) (requiring that harvestable populations be managed in a sustainable manner)); and the Convention on the Conservation of Wildlife and their Natural Habitats in the Countries of the Gulf Cooperation Council, Dec. 30, 2011, https://perma.cc/H7VD-QFKF (*e.g.*, art. 3(1)(C) (requiring that any exploitation of Appendix III species be done in a rationalized way that does not threaten the species' survival or existence in nature)).

114. *See also infra* Part V.C (discussing AEWA's potential to assist EU Member States in satisfying certain requirements of the Birds Directive).

C. AEWA'S FUNDAMENTAL PRINCIPLES AND THEIR RELEVANCE FOR WATERBIRD HARVEST

1. Maintaining or Restoring Favorable Conservation Status

Per Article II(1) of AEWA's Agreement text, parties commit to taking "coordinated measures to maintain migratory waterbird species in a favourable conservation status or to restore them to such a status." It is to this end that parties shall apply the measures prescribed by Article III and the Agreement's Action Plan.[115] It is implicit from this provision that the harvesting of migratory waterbirds must not be allowed to occur in a manner or at a level that would either impair the prospect of restoring FCS or deteriorate conservation status to an extent that it becomes unfavorable. This fundamental principle is explicitly reflected in several of the harvest-related provisions discussed in Parts III–IV below and informs the interpretation of *all* of parties' conservation commitments under the Agreement. Given the relevance of FCS in the context of harvest-regulation, this section briefly examines the scale at which FCS must be achieved and the manner in which this concept is defined.

Article II(1) of AEWA refers to the FCS of "species." However, it is clear from the definition of "migratory species" (articulated in the CMS and endorsed by AEWA) that "species" should be interpreted broadly to refer to the entire population, or any geographically separate part of the population, of any species or lower taxon of waterbirds.[116] In those instances in which a species' range extends beyond AEWA's Agreement Area, parties' ability to restore or maintain the conservation status of its *global* population is obviously limited. Aspects of AEWA's design and guidance documents consider species' global conservation status and reflect the need for parties to contribute to ensuring that this is favorable.[117] However, the Agreement's emphasis is on securing FCS within the AEWA range—more specifically, at the level of the populations identified in Table 1.[118]

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115. AEWA, *supra* note 11, art. II(1).

116. *Id*. art. I(2), read with CMS, *supra* note 12, art. I(1)(a) (defining "migratory species" to mean "the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries").

117. *E.g*., *infra* Part III.B (discussing AEWA's consideration of species-level assessments in its categorization of Table 1 populations); *AEWA Strategic Plan 2019-2027*, *supra* note 97, at 7 (explaining that the Plan's goal is to "maintain migratory waterbird species and their populations in a favourable conservation status or to restore them to such a status throughout their flyways"). Note also that the conservation status of global populations is identified as an indicator for assessing the success of several AEWA ISAPs, some of which were developed in cooperation with the CMS so as to provide frameworks for conservation beyond AEWA's Agreement Area. *See, e.g*., James A. Robinson & Baz Hughes, *International Single Species Action Plan for the Conservation of the Ferruginous Duck* Aythya nyroca, CMS Technical Series No. 12, AEWA Technical Series No. 7, 31 (Jun. 2006).

118. AEWA, *supra* note 11, annex 3 ¶ 2.1.2 (providing that the object of regulating the taking of birds and eggs of Column B populations is "to maintain or contribute to the restoration of those populations to a favourable conservation status"), ¶ 2.1.2(a) (requiring parties to prohibit taking during specified periods "if the taking has an unfavourable impact on the conservation status of the population concerned"), ¶ 2.2.2 (requiring the preparation and implementation of ISAPs for certain Table 1

A question arises concerning whether FCS must additionally be achieved at the level of individual states. In the absence of a framework to coordinate range states' contributions to the restoration or maintenance of FCS, an argument can potentially be made that such a requirement is necessary for holding states individually accountable and preventing them from hiding behind the performance of others.[119] It would, however, appear to be unnecessary if an ISAP or ISMP is in place and parties have agreed upon each range state's expected contribution to maintaining or restoring FCS at flyway-level. Indeed, the AEWA Technical Committee has previously supported the interpretation that, "[i]n the context of AEWA Species Action and Management Plans, *the FCS should be defined at the flyway level* based on separate assessments for the breeding, staging and non-breeding areas and the status of the population should be assessed based on the most limiting part of the annual cycle."[120] It has further advised that "[e]ach Principal Range State's contribution to maintaining or restoring FCS should also be specified and agreed [to] in the context of these plans."[121]

Turning from the scale to the meaning of FCS, the following definition of this term is provided by the CMS and also applies to AEWA:

> "Conservation status" will be taken as "favourable" when:
> 1. population dynamics data indicate that the migratory species is maintaining itself on a long-term basis as a viable component of its ecosystems;
> 2. the range of the migratory species is neither currently being reduced, nor is likely to be reduced, on a long-term basis;
> 3. there is, and will be in the foreseeable future sufficient habitat to maintain the population of the migratory species on a long-term basis; and
> 4. the distribution and abundance of the migratory species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife management[.][122]

This definition includes parameters concerning population dynamic, range, habitat, and historic coverage and levels, all of which must be satisfied for a population to be considered to have an FCS. Harvest can therefore contribute to a population's conservation status becoming unfavorable if it results in contractions of

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populations "with a view to improving their overall conservation status"); *see also AEWA Strategic Plan 2019-2027*, *supra* note 97, at 7–8 (in which the purpose-level indicators for assessing the Plan's success focus on the status of Table 1 populations).

119. *See also* Arie Trouwborst et al., *Interpreting 'Favourable Conservation Status' for Large Carnivores in Europe: How Many are Needed and How Many are Wanted?* 26 BIODIVERSITY & CONSERVATION 37, 49–52 (2017) (unpacking this argument in detail in the context of the EU Habitats Directive).

120. AEWA Technical Committee [hereinafter AEWA TC], *Guidance on the Interpretation of Favourable Conservation Status in the Context of Setting Population Targets for AEWA International Species Action and Management Plans*, AEWA/GGMPWS Inf.1.3, ¶ 2 (2017) (emphasis added).

121. *Id*. at ¶¶ 2, 14.

122. AEWA, *supra* note 11, art. I(2), read with CMS, *supra* note 12, art. I(1)(c).

the population's range (for example, by causing the abandonment of traditional sites) or severely degrades its habitat. Of particular relevance, however, are those components of the definition relating to population size (that is, parts 1 and 4). These are crucial for determining permissible levels of harvest, whether with the objective of recovery or sustainable management. A distinction must be made between the minimum population size that is *needed* to satisfy the legal requirement of FCS (the so-called "favorable reference population") and the population size that is *wanted* once FCS has been surpassed. The legal implications of limiting population numbers on the basis of the latter are considered in Part V.C below. A variety of socio-economic factors will inevitably influence the population size considered to be desirable. Importantly, however, considerations of a social, cultural or economic nature are not reflected in the first three elements of the FCS definition,[123] which instead prioritize ecological considerations.

Despite defining FCS, the CMS does not provide clear criteria to guide the application of this definition in practice. The Convention's CoP has agreed that taxa assessed as "Extinct in the Wild," "Critically Endangered," "Endangered," "Vulnerable," or "Near Threatened" using the IUCN Red List criteria meet the Convention's definition of "unfavourable conservation status."[124] This interpretation is also reflected in several AEWA ISAPs, which identify species' removal from these Red List categories as being an indicator that FCS has been restored.[125] However, neither the CMS CoP nor the AEWA MoP has done much to elucidate the four components of the FCS definition[126] so as to inform the process of identifying, *inter alia*, favorable reference populations. In the absence of an agreed position from the MoP, the AEWA Technical Committee has endorsed guidance to facilitate the setting of population targets.[127] The development of this

123. Regarding the definition's fourth element, the consideration of socio-economic factors is arguably encompassed by the concept of "wise wildlife management."

124. CMS Res. 11.33(Rev. COP12), *Guidelines for Assessing Listing Proposals to Appendices I or II of the Convention*, annex 1 ¶ 4(c) (Oct. 23-28, 2017), https://perma.cc/JEP5-VQ7H.

125. *See*, *e.g.*, Robinson & Hughes, *supra* note 117, at 31 (identifying the ferruginous duck's removal from the IUCN Red List as an objectively verifiable indicator that the goal of restoring this species to FCS has been achieved). Note also that, as a proxy for the more complicated definition of FCS, the drafters of AEWA's triennial Conservation Status Review have considered populations listed in Category 1 of Column B, or in Column C, of AEWA's Table 1 to have an FCS. Szabolcs Nagy & Tom Langendoen, *Report on the Conservation Status of Migratory Waterbirds in the Agreement Area*, AEWA/MOP7.14 Corr. 1, 52 (Oct. 2018, 7th ed.), https://perma.cc/K84H-5HHM.

126. The only aspect of the FCS definition for which the CoP and MoP have adopted a more detailed interpretation is its fourth component. *See* CMS Res. 12.21, *Climate Change and Migratory Species*, ¶ 9 (Oct. 23-28, 2017), https://perma.cc/2YT9-PKQ4; AEWA Res. 7.9, *Climate Resilient Flyways*, ¶ 10 (Dec. 4-8, 2018), https://perma.cc/DWM6-37ZN (both agreeing that conservation action will increasingly need to be taken not only within but also *beyond* migratory species' historic ranges in order to ensure FCS). Note, however, that this interpretation was agreed with climate-induced range *shifts* in mind and that questions remain concerning how to determine FCS in respect of populations whose distributions are *expanding* beyond their historic coverage.

127. AEWA TC, *supra* note 120.

guidance was informed by, *inter alia*, the existing guidance[128] and academic literature[129] on operationalizing FCS in the context of the EU Habitats Directive.[130] Notably, the Technical Committee's guidance has thus far only been applied in the management planning processes for two species of geese.[131] The document was not intended to provide exhaustive guidance on all elements of FCS, and it is envisaged that it will be adjusted in the future based on the practical experience gained with these two species.[132] Until such time that a more detailed interpretation is developed, the compilers of AEWA ISAPs have been advised to "follow the key concepts and approaches presented in the explanatory notes and guidelines under the EU Habitats Directive Article 17."[133]

Despite not presenting a definitive interpretation, several aspects of the Technical Committee's guidance are worth noting for the purposes of this Article. Regarding the first component of the FCS definition, the guidance recognized the abovementioned distinction between identifying favorable reference populations and defining upper targets for population size, and it provided that, while the latter may require societal compromises to balance various types of impacts, "cultural, economic and recreational requirements cannot undermine the prospective of a population to remain a viable component of the ecosystem."[134] It further advised that the favorable reference population must exceed the minimum viable population,[135] but need not necessarily be set at carrying capacity,[136] which is more relevant for defining hypothetical *maximum* population sizes.[137] The guidance additionally provided that, "[t]o consider the population dynamic being

128. Douglas Evans & Marita Arvela, *Assessment and reporting under Article 17 of the Habitats Directive: Explanatory Notes & Guidelines for the period 2007-2012*, 15-26 (Jul. 2011), https://perma.cc/3K54-BTUM (discussing the use of favorable reference values for population size, range and habitat in assessing conservation status).

129. *See in particular* Yaffa Epstein et al., *A Legal-Ecological Understanding of Favorable Conservation Status for Species in Europe*, 9(2) CONSERVATION LETTERS 81 (2016); Yaffa Epstein, *Favourable Conservation Status for Species: Examining the Habitats Directive's Key Concept through a Case Study of the Swedish Wolf*, 28 J. ENV'L L. 221 (2016); Trouwborst et al., *supra* note 119.

130. There is considerable overlap between the Habitats Directive's definition of FCS and that used by AEWA, since the Directive's definition was derived from the first three portions of the CMS definition (*see* Epstein et al., *supra* note 129, at 85).

131. AEWA TC, *supra* note 120, at 1, fn.1; *see also infra* Part V.C.

132. *Id*.

133. Wetlands Int'l, *Draft Revised Format and Guidelines for AEWA International Single and Multi-species Action Plans*, AEWA/MOP7.22, at 17, fn.5 (Sept. 2018), https://perma.cc/CT5K-AZUF, *adopted through* AEWA Res. 7.5, *Adoption, Revision, Retirement, Extension and Implementation of International Species Action and Management Plans*, ¶ 15 (Dec. 4–8, 2018), https://perma.cc/E68H-BRDA.

134. AEWA TC, *supra* note 120, ¶ 6.

135. *Id*. ¶ 3 (further advising that the minimum viable population be "defined in a way that the probability of extinction of the population within 100 years is less than 1%").

136. I.e., the maximum population size that can be sustained by the habitat indefinitely.

137. AEWA TC, *supra* note 120, ¶ 5.

favourable, the population trend should indicate that the population will not decline below the [favorable reference population] in the foreseeable future."[138]

As regards the fourth component of the FCS definition, assessing whether a population's abundance approaches historic levels is complicated by both limitations in historical data[139] and the definition's failure to identify a baseline year.[140] The ordinary meaning of "historic" indicates that any baseline used must at least fall prior to the date on which AEWA entered into force (1999). However, this is not especially helpful insofar as it allows for the arbitrary selection of baseline population sizes and fails to account for population declines that occurred prior to the baseline year. The guidance endorsed by the Technical Committee in the goose management context did not identify a particular baseline year, but highlighted the need to consider historic abundance when determining favorable reference populations, and emphasized the relevance of population declines that occurred before the entry into force of the CMS (this being the instrument in which the definition of FCS was first agreed).[141] It further recognized that the requirement concerning abundance approaching historic levels is not absolute. Rather, this requirement is qualified by the existence of suitable ecosystems and the demands of wise wildlife management, which the Technical Committee interpreted to mean "sustainable" wildlife management.[142]

Notably, the fourth part of the FCS definition is not the same as a "stand still" clause, such as that appearing in Article 13 of the Birds Directive.[143] Depending on the population concerned, and its historic fluctuations in size, it may therefore be permissible to set a favorable reference population (and any associated minimum population target) at a number that is *lower* than the size of the population at the time AEWA entered into force. However, the need to ensure compliance with other legal instruments is taken into account in the development of AEWA ISAPs and ISMPs.[144] Provisions such as Article 13 of the Birds Directive may

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138. *Id.* ¶ 8.

139. *See, e.g.*, Anthony D. Fox & Jesper Madsen, *Threatened Species to Super-Abundance: The Unexpected International Implications of Successful Goose Conservation* 46 AMBIO 179, 181 (2017) (observing that "it is extraordinarily difficult to assess the population size of many goose populations before the middle of the last century").

140. *See also* Arie Trouwborst, *Transboundary Wildlife Conservation in A Changing Climate: Adaptation of the Bonn Convention on Migratory Species and Its Daughter Instruments to Climate Change*, 4 DIVERSITY 258, 279 (2012) (observing that the notion of historic coverage is problematic for the CMS regime "because it is not at all apparent what time period is meant by the term 'historic'").

141. AEWA TC, *supra* note 120, ¶ 4.

142. *Id.*

143. "Application of the measures taken pursuant to this Directive may not lead to deterioration in the present situation as regards the conservation of the species of birds referred to in Article 1." *See also* Arie Trouwborst, *Weidevogels en de Europese en international verplichtingen van Nederland: een juridische analyse*, report for Vogelbescherming (2016) (explaining that this provision appears to require that EU Member States allow neither a population's size nor the diversity and area of its habitats to become deteriorated compared to the situation when the Directive entered into force).

144. *See infra* Part V.C.

consequently influence which year is used as a baseline within the framework of a particular plan.

2. The Precautionary Principle

Decisions regarding the management and conservation of populations of animals are characterized by various types of uncertainty.[145] Uncertainties of particular relevance for harvest regulation include those resulting from gaps in data about particular populations of species, the levels at which they are harvested, and the manner in which they respond to harvest (for example, whether harvest is additive or compensatory to other sources of mortality[146]); those resulting from variation in features of the environment that affect the abundance of animal populations; and those regarding the harvest rates that will result from a particular regulatory approach.[147] Some types of uncertainty are temporary and can be reduced over time through the collection of additional data, as is required of states by AEWA and various other international instruments. However, policy decisions often need to be made before such information is available[148] and not all types of uncertainty can be resolved through improved research and monitoring.[149]

Given the uncertainties associated with regulating waterbird harvest, Dodman and Boere emphasize the importance of the precautionary principle in this context. They comment that "[i]f there is one field where the precautionary principle on wise use should be applied, then it is with the taking of waterbirds throughout the AEWA area."[150] Indeed, one of the fundamental principles on which AEWA is based is that parties "should take into account the precautionary principle."[151] What, however, are the consequences of this provision for harvest management?

The precautionary principle can be defined in numerous ways, "having strong and weak versions and a range in between."[152] AEWA's legal text fails to specify

145. Nichols et al., *supra* note 111, at 344.

146. In other words, whether populations compensate for losses from harvest through reduced non-harvest mortality.

147. *See further* Nichols et al., *supra* note 111, at 344; Johnson et al., *supra* note 109, at 10.

148. Such an approach does not appear to be precluded by AEWA insofar as art. III(a)(b) of the Agreement text requires that the use of waterbirds be "based on an assessment of the *best available knowledge* of their ecology" (emphasis added), accepting that decisions regarding use may be based on incomplete knowledge.

149. *See further* Annecoos Wiersema, *Uncertainty, Precaution, and Adaptive Management in Wildlife Trade*, 36 MICH. J. INT'L L. 375, 386–87 (2015).

150. TIM DODMAN & GERARD BOERE, THE FLYWAY APPROACH TO THE CONSERVATION AND WISE USE OF WATERBIRDS AND WETLANDS: THE FLYWAY TRAINING KIT – MODULE 2: APPLYING THE FLYWAY APPROACH TO CONSERVATION 25 (2010).

151. AEWA, *supra* note 11, art. II(2).

152. Wiersema, *supra* note 149, at 389. *Compare, e.g.*, Agreement on the Conservation of Albatrosses and Petrels art. II(3), Jun. 19, 2001, 58 UNTS 257 (incorporating a relatively weak version of the precautionary principle: "where there are threats of serious or irreversible adverse impacts or damage, lack of full scientific certainty shall not be used as a reason for postponing measures to enhance the conservation status of albatrosses and petrels"), *with* CMS Res. 11.33, *supra* note 124, ¶ 3 (resolving, in the context of species' listing, that "in case of uncertainty regarding the status of a species,

what the principle means in the context of the Agreement. The only AEWA guidance to explicitly define the precautionary principle does so in relation to infrastructural developments, describing the principle as "[p]rudent action which avoids the possibility of irreversible environmental damage in situations where the scientific evidence is inconclusive but the potential damage could be significant."[153] The same, relatively strong,[154] definition should logically be applied in respect of other potentially harmful activities of relevance to the Agreement. The definition itself provides no indication of what constitutes "prudent action" in the face of uncertainty regarding the impacts of harvest. However, the AEWA MoP has occasionally provided guidance on how to act prudently in particular situations. For instance, even a small harvest during the stages of reproduction, rearing, and return to breeding grounds has the potential to have disproportionate effects on a breeding population. The Agreement's *Guidelines on Sustainable Harvest of Migratory Waterbirds* therefore advise that, in the absence of sufficient data to determine whether taking will have an unfavorable impact during this sensitive period, taking should be prohibited.[155] While this particular example promotes a protectionist approach, it should not be assumed that an application of the precautionary principle will *always* support the prohibition of harvest.[156] The decline of wildlife populations can be driven by a wide variety of threats and there are instances in which some of these might be exacerbated by harvest prohibitions[157]—especially if these fail adequately to consider the economic, social, political, and cultural factors at play and their influence on human

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the Parties shall act in the best interest of the conservation of the species concerned and, when considering proposals to amend Appendix I or II, adopt measures that are proportionate to the anticipated risks to the species").

153. Graham Tucker & Jo Treweek, *Guidelines on How to Avoid, Minimize or Mitigate Impact of Infrastructural Developments and Related Disturbance Affecting Waterbirds*, AEWA Technical Series No. 26, 37 (Sept. 2008).

154. Although the definition identifies a high threshold before the application of precaution (referring to "irreversible" and "significant" damage), it is stronger than some other formulations insofar as it actually calls for precautionary measures, as opposed to simply requiring that lack of scientific certainty not be used as a reason to delay them. Note also that AEWA's guidance promotes an especially rigorous application of the principle in some contexts, by encouraging states to place "the onus of proof on those proposing to undertake an activity to demonstrate or provide reliable evidence that there will be no environmental harm." *Id*. at 11.

155. Madsen et al., *supra* note 3, at 22 (discussing the precautionary principle in the context of AEWA, *supra* note 11, annex 3 ¶ 2.1.2(b)).

156. *See* Rosie Cooney, *The Precautionary Principle in Biodiversity Conservation and Natural Resource Management: An Issue Paper for Policy-Makers, Researchers and Practitioners*, 5–6, IUCN Policy & Global Change Series No. 2 (2004); Arie Trouwborst, PRECAUTIONARY RIGHTS AND DUTIES OF STATES ch. 7 (2006) (both explaining that the principle does not automatically call for any particular regulatory measure, and that precautionary responses should be tailored to the circumstances of each case).

157. Cooney, *supra* note 156, at 27–28, 32–34; Rosie Cooney & Barney Dickson, *Precautionary Principle, Precautionary Practice: Lessons and Insights*, *in* BIODIVERSITY & THE PRECAUTIONARY PRINCIPLE: RISK AND UNCERTAINTY IN CONSERVATION AND SUSTAINABLE USE 287, 294–295 (Rosie Cooney & Barney Dickson eds., 2005). *See also* Trouwborst, *supra* note 156, at 184–87 (providing a

responses to particular approaches to wildlife management.[158] In determining the most effective precautionary action, a range of available strategies, and the potential threats and benefits of each, should therefore be considered.[159]

A further question arises concerning the legal implications of an AEWA party *not* taking precautionary measures when faced with uncertainty regarding the impacts of harvest. AEWA's reference to the precautionary principle is preceded by the phrase "should take into account," rather than the more legally rigorous "shall apply." It follows that a party's failure to apply, or even consider, the principle will not in itself constitute a contravention of the Agreement.[160] That said, if a party's failure to act prudently ultimately has an unfavorable impact on an AEWA population's conservation status, it will likely contravene one of parties' more substantive and rigorous AEWA obligations. Despite Article II(2)'s hortatory nature, it is thus advisable for parties, in instances of uncertainty, to err in favor of the species so as to ensure that they remain compliant with the Agreement. Notably, AEWA's Implementation Review Process can be initiated in respect of human activities that either cause or have the *potential* to cause adverse effects to migratory waterbirds and/or their habitats.[161] This mechanism, and the recommendations that result from its use, can therefore be used to urge parties to implement precautionary measures. Indeed, the MoP has stressed that, in the context of the IRP, "[t]he Party concerned will ensure that any measures undertaken regarding the activity, site or habitat under issue will be in accordance with its obligations under the Agreement *and will be based on the precautionary principle*."[162]

A final issue worth considering is the relationship between the precautionary principle and the concept of AHM, which, as noted above, is becoming an increasingly prominent feature of AEWA's work on sustainable use. AHM recognizes that there are various sources of uncertainty in regulating harvest and "relies on an iterative cycle of monitoring, assessment, and decision-making to clarify the relationships among hunting regulations, harvests, and waterfowl

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more general discussion on choosing between one risk and another when applying the precautionary principle).

158. Tonie O. Balangue, *The Precautionary Approach and Local Livelihoods: A Study of a Protected Landscape and Seascape in the Philippines*, *in* BIODIVERSITY & THE PRECAUTIONARY PRINCIPLE: RISK AND UNCERTAINTY IN CONSERVATION AND SUSTAINABLE USE 237, 248 (Rosie Cooney & Barney Dickson eds., 2005).

159. Cooney & Dickson, *supra* note 157, at 295.

160. *See*, *e.g.*, Sylvia Bankobeza et al., *International Environmental Diplomacy and Negotiations*, *in* INTERNATIONAL ENVIRONMENTAL LAW-MAKING AND DIPLOMACY: INSIGHTS AND OVERVIEWS 83, 92 (Tuomas Kuokkanen et al. eds., 2016) (explaining that the word "should" in treaty negotiations means that "an action is not required but is advised," and using AEWA's provision on the precautionary principle as an example). Whether such failure constitutes a contravention of other international instruments, or even of customary international law, is a separate issue, the exploration of which falls beyond the scope of this Article.

161. AEWA Res. 4.6, *supra* note 101, ¶ 3.

162. *Id.* (emphasis added); *see also* Mikander, *supra* note 36, at 518–19.

abundance."[163] In other words, the approach incorporates uncertainty into decision-making, and involves "making modest, reversible management interventions, careful monitoring of impacts, and continual assessment and refinement of management practice as information increases."[164] Insofar as they are implemented in a manner that avoids irreversible damage to AEWA populations, AHM programs are entirely consistent with the above definition of the precautionary principle and, indeed, provide an avenue for operationalizing the principle in practice.

III. POPULATIONS FOR WHICH HARVEST IS PROHIBITED IN PRINCIPLE

International instruments vary in the extent to which they allow the harvest of animals. In terms of the EU Birds Directive, for instance, the deliberate killing or capture of birds is, in principle, prohibited, with a handful of species being partially excluded from this prohibition and derogations therefrom being permissible in specified circumstances.[165] Conversely, under AEWA, the harvest of most populations of migratory waterbirds is, in principle, permitted (see *supra* Box 2). There are, however, some populations in respect of which AEWA requires strict legal protection. These are listed in Column A of Table 1, which includes, for instance, two of the four white stork populations covered by the Agreement, and all AEWA-listed populations of lesser white-fronted goose.[166] This Part begins by examining the protections that AEWA prescribes for Column A populations and the implications for the harvest of both Column A populations themselves and the other waterbird populations with which these overlap in time and location. It then examines the manner in which populations are assigned to Column A, the strengths of this approach, and the criticisms that have been raised against it. It subsequently examines the conditions in which parties may deviate from this strict protection regime and the complications that arise in applying these deviations. Finally, it considers the potential for adjusting aspects of AEWA's restrictions.

A. HARVEST-RELATED PROHIBITIONS IN RESPECT OF COLUMN A POPULATIONS

1. The Prohibition of "Taking"

AEWA's Agreement text makes no explicit mention of the prohibition of taking. Article III(2)(a), however, incorporates such a prohibition through reference to the CMS.[167] As is examined elsewhere, the precise scope of this provision has yet to be interpreted by the AEWA MoP, but at the very least appears to

163. Johnson et al., *supra* note 109, at 10.
164. Cooney, *supra* note 156, at 31.
165. Birds Directive, *supra* note 18, arts 5(a), 7, 9.
166. AEWA, *supra* note, 11, annex 3 tbl. 1.
167. *Supra* Box 1.

encompass those AEWA populations that are listed in CMS Appendix I.[168] More comprehensive requirements appear in paragraph 2.1.1 of the AEWA Action Plan, which obliges parties to, *inter alia*, "prohibit the taking of birds and eggs of those [Column A] populations occurring in their territory," as well as the possession, utilization of, and trade in birds and eggs (or the readily recognizable parts and derivatives thereof) that have been taken in contravention of this prohibition.[169]

Both the title appearing above paragraph 2.1.1 ("Legal measures"[170]) and the ordinary meaning of "prohibit" ("to forbid by authority"[171]) indicate that the requisite restrictions must be imposed by law. This interpretation is confirmed by AEWA's drafting history.[172] It has also been accepted by the Agreement's Standing Committee, which recently agreed that, in the absence of a legal prohibition, wildfowling clubs' participation in a voluntary moratorium on hunting does not amount to compliance with the AEWA Action Plan.[173] Moreover, the term "taking" is considerably broader than hunting, and also includes "capturing, harassing, deliberate killing, or attempting to engage in any such conduct."[174] Between them, "hunting," "capturing," and "deliberate killing" clearly cover all types of waterbird harvest, regardless of their motivation. However, a question arises concerning the extent to which these terms also encompass the accidental capture and/or killing of protected birds resulting from the use of indiscriminate harvest methods or from the targeting of look-alike species.

Neither the CMS CoP nor the AEWA MoP has interpreted "deliberate" in the context of "deliberate killing." However, when interpreting the same term in the context of "deliberate disturbance,"[175] the latter has drawn inspiration from guidance on the EU Habitats Directive and agreed that, to be considered deliberate, disturbance need not be the primary motivation for an activity, but need merely be accepted by the actor as a foreseeable consequence thereof.[176] The same

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168. *See further* Lewis, *supra* note 26 (considering possible interpretations of art. III(2)(a) and its relationship with provisions in the AEWA Action Plan).

169. AEWA, *supra* note 11, annex 3 ¶¶ 2.1.1(a), 2.1.1 (c).

170. *Id*. annex 3 ¶ 2.1.

171. *Prohibit*, MERRIAM-WEBSTER DICTIONARY, https://perma.cc/6KCR-JZEJ (last visited Nov. 2, 2019).

172. *E.g*. CMS, *Agreement on the Conservation of African-Eurasian Migratory Waterbirds, Amended Agreement text (including the Action Plan, but excluding Table 1), incorporating new non-substantive amendments of a linguistic, legal or technical nature*, CMS/AEWA/Doc.6, annex 3 ¶ 2.1.1 (draft, Jun. 11, 1995) (copy on file with author) ("Parties with populations covered by this Action Plan shall provide *full legal protection* to the endangered populations listed in column A of Table 1 . . . ." (emphasis added)).

173. UNEP/AEWA Secretariat, *Implementation Review Process-Report to MOP7*, 17, AEWA/MOP 7.18 Rev.1 (Nov. 30, 2018).

174. CMS, *supra* note 12, art. I(1)(i).

175. AEWA, *supra* note 11, annex 3 ¶ 2.1.1(b) (requiring that parties prohibit the deliberate disturbance of Column A populations insofar as this would be significant for their conservation).

176. AEWA, Res. 6.7, *Adoption of Guidance in the Context of Implementation of the AEWA Action Plan*, app. I (Nov. 9-14, 2015) (endorsing the same definition of "deliberate" as that articulated by the European Commission for interpreting this term in the context of the Habitats Directive).

meaning of this term should logically be employed when interpreting "deliberate killing."[177] Following this line of reasoning, even if a person engaged in harvest did not directly target Column A populations, their conduct should nevertheless be considered "deliberate" if they foresaw that the killing of birds from such populations would possibly result. This would, for instance, be the case if the actor was aware that the birds being targeted are visually very similar to those belonging to a protected population, and that the latter were likely to be present in the location and period where harvest occurred.[178]

The definition of "taking" fails to specify that "capturing" must be deliberate. All capturing of birds from protected populations must therefore be effectively prohibited. A consequence of this, observed by Bowman *et al*. in their discussion of the CMS, is that the accidental bycatch of seabirds in fishing nets "is an activity that must be rigorously controlled."[179] The same reasoning applies to the bycatch of birds belonging to AEWA's Column A populations—whether in fishing nets or through the use of any other indiscriminate harvest methods, and regardless of the species targeted thereby. Thus, although bycatch does not fall within this Article's definition of "harvest," AEWA's requirement that parties prohibit the capturing of birds from Column A populations nevertheless has implications for harvest regulation. In particular, the use of indiscriminate means of harvest that could result in the capture of birds from a Column A population needs to be prohibited unless the conditions for exemption from AEWA's prohibition on taking are satisfied (see *infra* Part III.C[180]).

2. The Prohibition of Disturbance and its Relationship with the Prohibition of Taking

Paragraph 2.1.1(b) of the AEWA Action Plan provides a further protection for Column A populations by requiring that parties "prohibit deliberate disturbance in so far as such disturbance would be significant for the conservation of the population concerned."[181] Again, though not aimed directly (or exclusively) at harvest, this provision has implications for the manner in which harvest is regulated.

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177. Notably, the European Commission's definition of "deliberate" that is replicated in AEWA's guidance on disturbance appears in the Commission's guidance on interpreting "deliberate capture or killing." *Guidance Document on the Strict Protection of Animal Species of Community Interest Under the Habitats Directive 92/43/EEC*, ¶ 33, at 36 (2007).

178. Note that AEWA makes special provision for populations belonging to the *same species* but with different categorizations. Where such populations overlap, parties are required to "apply the conservation measures appropriate to the population or populations that have the poorest conservation status" (AEWA, *supra* note 11, ¶ 7.2; *see further* AEWA, *Guidance on Measures in National Legislation for Different Populations of the Same Species, Particularly with Respect to Hunting and Trade*, AEWA/MOP 6.34 (Aug. 11, 2015).

179. BOWMAN ET AL., *supra* note 76, at 548.

180. *See also infra* Part IV.B (discussing implications for regulating the harvest of Column B populations).

181. AEWA, *supra* note 11, annex 3 ¶ 2.1.1(b).

The MoP has interpreted "disturbance" to mean "[a]ny human-induced activity that constitutes a stimulus (equivalent to a predation threat) sufficient to disrupt normal activities and/or distribution of waterbirds relative to the situation in the absence of that activity."[182] It is clearly possible for the harvest of waterbirds and other species (and activities associated therewith) to satisfy this definition. To comply with paragraph 2.1.1(b), it may in some instances therefore be necessary for parties to prohibit harvest, or the use of particular methods of harvest, at times and locations at which birds belonging to populations listed in Column A would otherwise likely be disturbed.

Paragraph 2.1.1(b) is diluted by the qualifications that disturbance need only be prohibited if it is both deliberate and significant—the MoP having defined the latter in terms of the likely impacts of disturbance on waterbird populations' distribution, abundance, mortality, and productivity.[183] These constraints render the provision weaker than the requirement that parties prohibit the taking of birds from Column A populations. However, a curiosity arises insofar as the term "taking" is defined to include "harassing" and even attempted harassment. The extent to which this inclusion results in a more onerous obligation concerning disturbance than that created by paragraph 2.1.1(b) has never been explored. Requiring the prohibition of *attempts* to harass birds belonging to Column A populations obviously goes beyond what is prescribed by paragraph 2.1.1(b). However, what is the relationship between "disturbing" and "harassing," and should the latter be interpreted as only encompassing impacts that are both deliberate and significant?

It is evident from the ordinary meaning of "harass" (persistent annoyance or disturbance[184]) that, although the terms are not entirely synonymous, at least some forms of disturbance constitute harassment. As regards the broader context in which the term is used, important considerations include the list of actions alongside which it appears in the definition of "taking" (all of which have direct and serious impacts for individual birds by removing them from wild populations); the strict limitations on deviations from AEWA's requirement that taking be prohibited;[185] and the Action Plan's articulation of several disturbance-specific provisions, all of which limit parties' obligations to circumstances in which the impact of disturbance is significant.[186] These factors arguably indicate that harassment should only be interpreted as encompassing significant intrusions on

182. AEWA, Res. 6.7, *supra* note 176, app. I, at 3.

183. *See id*. app. I at 4–5.

184. *Harass*, MERRIAM-WEBSTER DICTIONARY, https://perma.cc/KJQ9-JE7T (last visited Nov. 2, 2019) ("to annoy persistently"); *Harass*, DICTIONARY.COM, https://perma.cc/5J36-3WN7 (last visited Nov. 2, 2019) ("to disturb persistently").

185. *See infra* Part III.C.

186. AEWA, *supra* note 11, annex 3 ¶ 2.1.1(b), ¶ 2.1.2(b) (requiring, in respect of Column B populations, that parties prohibit the use of means of taking capable of causing "serious disturbance"), ¶ 4.3.6 (requiring, *inter alia*, that parties endeavor to take measures to limit the level of threat where human disturbance "threatens the conservation status" of Table 1 populations).

waterbirds' normal behavior. That said, the definition of "taking" does not specify that harassment must be deliberate and nothing in the term itself suggests that only deliberate disruptions of behavior qualify. Indeed, there are ample examples of legal definitions which recognize that disruptions need not be deliberate in order to constitute harassment[187]—including definitions that have been endorsed elsewhere in the CMS Family.[188] To the extent that the requirements to prohibit harassment and deliberate disturbance diverge, it could potentially be argued that the latter provision (being a more specific stipulation on the disturbance of Column A populations than the more broadly-framed provision on taking) should prevail. On the other hand, it could be argued that, in those instances in which disturbance is both significant for a Column A population's conservation and persistent in nature (so as to constitute harassment), AEWA's objective of restoring populations to a favorable conservation status supports an interpretation that the disturbance be legally prohibited regardless of whether it is deliberate. Until such time as additional guidance is endorsed by the AEWA MoP, it cannot be definitively stated which of these interpretations is accurate.

B. THE CATEGORIZATION PROCESS: CRITERIA FOR INCLUSION IN COLUMN A AND THE STRENGTHS AND CRITICISMS OF AEWA'S APPROACH TO CATEGORIZATION

Column A of AEWA's Table 1 is divided into four categories, some of which include further sub-categories. In addition, a handful of populations in Categories 2 and 3 are marked with asterisks. As discussed in Part III.C below, the AEWA Action Plan allows greater flexibility for the harvest of asterisk-marked and Category 4 populations than it does for the other populations appearing in Column A.

Inclusion in Categories 1(c), 2, and 3 of Column A is determined by population size and, for Category 3, various additional criteria concerning range, habitat, and population trends. Category 1(a) is reserved for those AEWA species included in CMS Appendix I. Categories 1(b) and 4 are linked to species' IUCN Red List

187. *E.g.* 50 C.F.R. § 17.3 (interpreting "harass" for the purposes of the Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544) to include both intentional and negligent conduct).

188. CMS, *Species-Specific Guidelines for Boat-based Wildlife Watching*, Annex to Res. 11.29 (Rev. COP12), at 8 (Dec. 21, 2017), https://perma.cc/R4CL-Q29M (Interpreting harassment in a manner that seemingly is not limited to deliberate impacts: "Disturbance refers to the result of direct or indirect human-wildlife interaction that changes the behaviour of an animal or changes the environment in which the animal lives, which in turn affect its well-being and survival in the short, medium and/or long term. . . . Harassment refers to disturbance that is repeated in multiple events over time. While disturbance and harassment have a subtle difference in meaning, in most literature they are used interchangeably."); Agreement on the Conservation of Cetaceans of the Black Seas, Mediterranean and Contiguous Atlantic Area, Nov. 24, 1996, 2183 UNTS 303 [ACCOBAMS], Res. 4.18, *Guidelines on the Granting of Exceptions to Article II, Paragraph I, for the Purpose of Non-lethal In Situ Research in the Agreement Area*, at 1 (Nov. 9-12, 2010), https://perma.cc/AQ3C-24CW ("harassing should mean to disrupt deliberately or incidentally the normal behaviour or prior activity of a cetacean either by actions or omissions"). Regarding the latter, note, however, that unlike the CMS and AEWA, ACCOBAMS only requires that parties prohibit the *deliberate* taking of cetaceans (ACCOBAMS, art. II(1), Nov. 24, 1996, 2183 U.N.T.S. 303).

classifications. The former category is dedicated to populations belonging to species that the Red List identifies as threatened (that is, Critically Endangered, Endangered or Vulnerable[189]), and the latter to populations of Near Threatened species that are pertinent for international action and do not fulfil the conditions for listing in Categories 1–3.[190]

An important aspect of AEWA's process for categorizing Table 1 populations is that inclusion in a particular column and category is essentially an automatic consequence of a population or species having satisfied the relevant criteria. Rather than proposals regarding listing categorizations being made and considered on a population-by-population basis, they are made and adopted *en masse* at each MoP.[191] These adjustments are proposed on the basis of a Conservation Status Review, prepared every three years and therefore containing up-to-date information on populations' conservation status (insofar as such information is available).[192] An advantage of this approach is that it avoids protracted negotiations about the appropriate categorizations[193] for populations of each species—examples of such debates being rife in other treaty regimes.[194] It further helps to ensure that each population's level of protection remains well-aligned with its actual conservation status. Waterbird populations with unfavorable conservation statuses are not excluded from protection on the basis of purely social, cultural, or economic considerations.[195] The corollary is that populations whose conservation statuses have experienced sufficient improvement are down-listed as a matter of course, allowing increased flexibility for harvest. This distinguishes the Agreement from international instruments whose species listings are more static in nature or are not accompanied by prescriptive criteria for up-listing and down-listing (for example, the Bern Convention[196]).[197]

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189. IUCN SPECIES SURVIVAL COMMISSION, IUCN RED LIST CATEGORIES AND CRITERIA: VERSION 3.1, 4 (2d ed. 2012).

190. AEWA, *supra* note 11, annex 3 tbl. 1.

191. *E.g.* AEWA, *Proposals to the 7th Session of the Meeting of the Parties for Amendments to Annexes 2 and 3 of AEWA*, 8–30, AEWA/MOP 7.19 (Oct. 5, 2018) (detailing the most recent proposals to amend Table 1, which were presented to the AEWA MoP in December 2018).

192. Lewis, *supra* note 16, at 72.

193. The exception to this is populations whose categorization is accompanied by an asterisk. The decision to attach an asterisk is not based on ecological criteria and therefore has the potential to generate lengthy debates, although such debates have not occurred since the Agreement's adoption. *See infra* Part III.D for further discussion.

194. *See*, *e.g.*, Timothy Hodgetts et al., *Improving the Role of Global Conservation Treaties in Addressing Contemporary Threats to Lions*, 27 BIODIVERSITY & CONSERVATION 2747, 2752–53 (2018) (explaining that heated debate over species' listings has recently begun to seep into the CMS CoP, the most recent session of which was forced to resort to voting).

195. Notably, however, it remains possible for individual parties to achieve such exclusion by way of reservation (*see infra* Part III.C).

196. BOWMAN ET AL., *supra* note 76, at 304–05 (discussing the criteria for species' listing on the Bern Convention's Appendices).

197. *See*, however, *infra* Part V.C (discussing the influences that less flexible international instruments have had on AEWA's functioning).

On the other hand, AEWA's approach to categorizing Column A populations, and the legal restrictions that automatically attach to such categorizations, are vulnerable to certain criticisms. The first is that, while parties are required to prohibit the harvest of Column A populations, AEWA's approach to categorization fails to consider whether harvest represents a significant threat to the population in question.[198] This concern can be countered by the argument that, even if the harvesting of birds is not a key driver of a population's decline, it is an avoidable source of mortality with the potential to compound other threats and should therefore generally be prohibited in respect of populations in need of recovery.[199] Nevertheless, there arguably remains a need to accommodate the harvest of even these populations if doing so would have conservation benefits,[200] or would satisfy (or reduce conflicts with) certain human interests while not impairing the prospect of restoring the population to a favorable conservation status. The extent to which the harvest of Column A populations is indeed accommodated by AEWA in such circumstances is examined in Part III.C below.

Additional concerns, raised by hunters' representatives in particular, pertain to Column A's linkage to the IUCN Red List of Threatened Species. Although the Red List criteria can be applied at any taxonomic or geographic level, they were designed for global taxon assessments.[201] The IUCN Red List classifications on which certain AEWA categories are based therefore occur at the species level. The result is that if a particular species of migratory waterbird is included in one of the Red List's threatened categories, all of its populations occurring within AEWA's Agreement Area are listed in Category 1(b) of Column A. All populations belonging to a Near Threatened species are similarly included in Category 4 of Column A, with the exception of those populations that qualify for a higher AEWA categorization. This approach has been criticized for deviating from that taken by the remaining Table 1 categories (for which assessments are made at the level of biogeographic populations[202]), and can result in relatively stable

198. *See generally* E. J. MILNER-GULLAND & J.M. ROWCLIFFE, CONSERVATION AND SUSTAINABLE USE: A HANDBOOK OF TECHNIQUES 3 (2007) (discussing the distinction between determining whether a species is of conservation concern and determining whether an intervention aimed at reducing exploitation is the best approach to address this); Madsen et al., *supra* note 3, at 16 (observing that "[i]n the case of populations of conservation concern, the restriction of harvest is often used as the prudent and easiest conservation action to stem a population decline" and that "[t]his has led to criticism and frustration by hunters who sometimes feel victims of decisions they see as not justified by quantitative scientific information").

199. *See*, *e.g.*, Annecoos Wiersema, *CITES and the Whole Chain Approach to Combating Illegal Wildlife Trade*, 20 J. INT'L WILDLIFE L. & POL'Y 207, 211 (2017) (discussing the use of this argument in listing proposals under the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 27, U.S.T. 108, 993 U.N.T.S. 243 [hereinafter CITES]).

200. *E.g.* MILNER-GULLAND & ROWCLIFF, *supra* note 198, at 197 (commenting that the prohibition of a species' use "can be counter-productive if it reduces incentives for conservation").

201. IUCN SPECIES SURVIVAL COMMISSION, *supra* note 189, at 8.

202. AEWA, *Report of the 14th Meeting of the Technical Committee*, ¶ 68 (Apr. 10–13, 2018) https://www.unep-aewa.org/sites/default/files/document/aewa_tc14_2_final_report_0.pdf [hereinafter *TC14*

populations receiving AEWA's highest level of protection.[203] On the other hand, it can be argued that protection is warranted in such instances in order to better contribute to the restoration of favorable conservation status at a *species*, rather than just population, level.[204]

As declines in global populations increasingly result in common species, with extremely large populations, appearing in the Red List's threatened categories and thus in Category 1(b) of AEWA's Column A, further concerns have been raised about the strict prohibition of taking that accompanies this category.[205] For instance, the West Siberia/North Europe population of long-tailed duck, *Clangula hyemalis*, despite having experienced a severe decline justifying the species' IUCN classification as Vulnerable,[206] is estimated to include 1.6 million birds.[207] AEWA's requirement that parties prohibit the taking of birds from this population is difficult to justify to hunters when the Agreement allows the harvest of other populations that are considerably smaller—especially since the impact of harvest is considered to be of little population-level concern in this particular instance.[208]

Few AEWA populations are currently in a position similar to that of the long-tailed duck. Of the 51 populations that meet the criteria for Category 1(b) of Column A, roughly 70% also qualify for inclusion in Category 1(a) and/or (c) due to their CMS listing or population size.[209] The 15 populations qualifying *exclusively* for Category 1(b) belong to nine species—not all of which are of considerable interest to hunters.[210] However, as more and more populations of common species find their way into this category, AEWA may well be confronted with increasing pressure to better accommodate the harvest of birds from such populations. Should this occur, it needs to be remembered that the Agreement's central objective is to restore and maintain favorable conservation status. A population's conservation status is not simply determined by its size in relation to

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Report] (reflecting the CIC's view that there is "a mismatch between *species* and *population* levels within the classification of categories in Table 1, which [needs] to be addressed").

203. IUCN SPECIES SURVIVAL COMMISSION, *supra* note 189, at 8–9 (explaining that applying the Red List criteria to an entire species does not necessarily yield the same result as applying them to a lower level).

204. *See supra* Part II.C.

205. *TC14 Report*, *supra* note 202, ¶ 69 (reflecting the CIC's suggestion that the Column A categories be amended to allow the AHM of large populations where this is not already permitted).

206. BirdLife International, *Clangula hyemalis*. *The IUCN Red List of Threatened Species* (2018), https://perma.cc/M4ZH-KEFB.

207. Richard Hearn et al., *International Single Species Action Plan for the Conservation of the Long-tailed Duck*, Clangula hyemalis, AEWA Technical Series No. 57, 13 (2015), https://perma.cc/TR4D-YUG6.

208. *Id*. at 22.

209. AEWA, *supra* note 11, annex 3 tbl. 1.

210. For instance, this is not an issue for the Cape gannet, *Morus capensis*, or the Cape cormorant, *Phalacrocorax capensis*. *See generally* Christina Hagen & Ross Wanless, *International Multi-species Action Plan for the Conservation of Benguela Current Upwelling System Coastal Seabirds*, AEWA Technical Series No. 60 (2015), *available at* https://perma.cc/JUL5-JM7F.

other populations, and the fact that a steeply declining population remains comparatively large does *not* excuse parties from their AEWA obligation to restore it to a favorable conservation status. It is therefore imperative that any amendment of AEWA's categorizations, or relaxation of the obligations attached to these, be accompanied by sufficient safeguards to ensure that harvest does not impede population recovery. This issue receives further consideration in Part III.D below.

C. CIRCUMSTANCES IN WHICH THE HARVEST OF COLUMN A POPULATIONS REMAINS PERMISSIBLE

1. Exceptions for Adaptive Harvest Management within the Framework of International Species Action Plans

a. Eligible Populations

Despite requiring parties to prohibit the taking of birds from Column A populations, paragraph 2.1.1 of the AEWA Action Plan allows an exception for populations listed in Category 2 or 3 of Column A and marked with an asterisk, as well as those included in Category 4.

AEWA's use of asterisks emerged from a proposal introduced at the Agreement's final negotiation meeting (in June 1995),[211] which was aimed at overcoming an impasse between negotiators regarding the draft Agreement's restrictions on taking.[212] Only three populations are currently marked with an asterisk.[213]

Category 4 of Column A was only created at the fifth session of the AEWA MoP (MoP5), at which time the paragraph 2.1.1 exception was expanded to encompass Category 4 populations.[214] The thinking underlying these changes was, *inter alia*, for AEWA to take a more proactive approach in preventing Near Threatened species from becoming threatened, by only allowing their hunting if frameworks are in place to ensure that this occurs sustainably.[215] Twenty-two populations, belonging to five species, appear in Category 4 of Column A.[216]

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211. CMS, *Formal Negotiation Meeting: Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)*, CMS\AEWA\Doc.6, addendum 3 (Jun. 12-16, 1995) (copy on file with author) (including a proposed amendment to the draft Action Plan so as to make provision for the asterisk).

212. Author's correspondence with Colin Galbraith (head of the United Kingdom's delegation in the negotiation of AEWA).

213. AEWA, *supra* note 11, annex 3 tbl. 1.

214. AEWA Res. 5.6, *Adoption of Amendments to the AEWA Action Plan*, app. I–II (May 14–18, 2012), https://perma.cc/5GLQ-UWZW.

215. *See further* AEWA, *Proposals to the 5th Session of the Meeting of the Parties for Amendments to Annex 3 (Action Plan and Table 1) of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)*, AEWA/MOP5.20, 39 (Mar. 29. 2012), https://perma.cc/8AMY-6662 [hereinafter *Proposals to MoP5*] (providing the full justification for these amendments).

216. AEWA, *supra* note 11, annex 3 tbl. 1.

b. Conditions for Applying the Exception and Limitations in its Scope

For those populations in respect of which the paragraph 2.1.1 exception is available, hunting may continue, provided that certain conditions are satisfied:

(1) the hunting must occur "on a sustainable use basis;"
(2) this sustainable use must "be conducted within the framework of an international species action plan, through which Parties will endeavour to implement the principles of adaptive harvest management;" and
(3) use must, "as a minimum, be subject to the same legal measures as the taking of birds from populations listed in Column B of Table 1" (these being discussed *infra* Part IV).[217]

The first and third conditions also apply in respect of populations with lower Table 1 categorizations. What distinguishes the treatment of asterisk-marked and Category 4 populations is therefore the requirement that hunting only occur within the framework of an ISAP through which parties endeavor to implement AHM. The exception was initially only available where the hunting of a population was a "long-established cultural practice."[218] This wording was removed in 2012,[219] with the result that the exception can be relied upon regardless of the history of, or motivation for, hunting. Nevertheless, its scope remains limited to "hunting" rather than the broader term "taking" and therefore does not cover all forms of harvest. For instance, the capture of live birds or the culling of birds through measures other than hunting is not permissible under the paragraph 2.1.1 exception. Notably, however, these activities may be allowed under the paragraph 2.1.3 exemptions discussed below, and ISAPs have the potential to assist parties in satisfying the conditions of that paragraph.

ISAPs are aimed at recovering populations to a favorable conservation status. To this end, they identify and assess the threats driving a population's decline, describe appropriate actions for addressing these, and identify knowledge gaps and research needs.[220] They therefore provide frameworks for assessing the extent to which hunting constitutes a threat and, where appropriate, coordinating hunting (and other forms of harvest) across range states as part of a broader suite of recovery measures. Importantly, however, even if a population is marked with an asterisk or listed in Category 4 and an ISAP is in place to promote its recovery, it does not *necessarily* follow that hunting is permissible. Several scenarios are possible, which will be unpacked in the remainder of this section.

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217. *Id.* annex 3 ¶ 2.1.1.

218. AEWA, *Final Act of the Negotiation Meeting to Adopt the Agreement on the Conservation of African-Eurasian Migratory Waterbirds*, annex 3 ¶ 2.1.1 (Jun. 1995) [hereinafter AEWA, *Final Act*].

219. AEWA Res. 5.6, *supra* note 214.

220. *See further* Wetlands Int'l, *supra* note 133.

Firstly, if an ISAP is in place but makes no provision for hunting, then it is not possible for sustainable use to be "conducted within the framework of an international species action plan." The exception therefore is unavailable, parties remain obliged to prohibit hunting, and failure to do so constitutes a contravention of their AEWA commitments. This is alluded to in the ISAP for the taiga bean goose, *Anser fabalis fabalis*, which comments that hunting may only be permitted under the exception "if there is an approved International Species Action Plan in place defining the modalities of sustainable use."[221] It has also recently been confirmed by the AEWA Standing Committee in an Implementation Review Process case concerning the Greenland white-fronted goose, *Anser albifrons flavirostris*. This population appears in Category 2 of Column A and is marked with an asterisk.[222] A framework for its conservation is provided by an ISAP.[223] The international action planning workshop that preceded this plan's adoption considered the potential for hunting to continue under the paragraph 2.1.1 exception. However, it concluded that hunting could not, at that stage, be undertaken sustainably and that any killing would exacerbate the population's unfavorable conservation status.[224] The plan therefore calls upon range states to "[t]ake all possible steps to minimise mortality," including the introduction and/or maintenance of protection from hunting throughout the year "whilst the population has its currently unfavourable conservation status."[225] Since the ISAP does not provide for hunting, the AEWA Standing Committee concluded that the United Kingdom's failure to prohibit the hunting of Greenland white-fronted geese in England and Wales (relying instead on a voluntary moratorium) contravened paragraph 2.1.1 of the Agreement's Action Plan. The UK accepted the Standing Committee's recommendations on how to address this and undertook to introduce a legislative prohibition on the taking of this subspecies in 2019.[226]

A second scenario arises when an ISAP recognizes that there might be scope for sustainable hunting but calls for hunting to be prohibited until mechanisms are in place to ensure sustainability. An example is the 2015 ISAP for the Eurasian curlew, *Numenius arquata*.[227] The ISAP envisages the launch of an AHM process for that part of the (Category 4-listed) Europe/Europe, North &

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221. Arto Marjakangas et al., *International Single Species Action Plan for the Conservation of the Taiga Bean Goose*, Anser fabalis fabalis, AEWA Technical Series No. 56, 10 (2015), https://perma.cc/7XCZ-JCWL.

222. AEWA, *supra* note 11, annex 3 tbl. 1.

223. David Stroud et al., *International Single Species Action Plan for the Conservation of the Greenland White-fronted Goose, Anser albifrons flavirostris*, AEWA Technical Series No. 45 (2012), *available at* https://perma.cc/SY3G-YUJR.

224. *Id*. at 31-32.

225. *Id*. at 37.

226. UNEP/AEWA Secretariat, *supra* note 173, at 17.

227. Daniel Brown, *International Single Species Action Plan for the Conservation of the Eurasian Curlew* Numenius arquata arquata, N. a. orientalis *and* N. a. suschkini, AEWA Technical Series No. 58 (2015), https://perma.cc/6RVL-HL32.

West Africa population of Eurasian curlew that spends part of its life cycle in France. It further calls for "a complete moratorium of hunting in France until the AHM process has established its recommendations which are to be implemented if and when hunting is re-opened."[228] The inclusion of this action was controversial. For instance, upon the ISAP's adoption, the European Federation for Hunting and Conservation ("FACE") expressed the view that the moratorium was a stricter action than is required by the population's Category 4 listing and was unjustified given the plan's suggestion that hunting is not a significant factor in the population's decline.[229] Whether the imposition of a moratorium was well justified in this particular instance is a debate falling beyond the scope of this Article. In principle, however, an ISAP's insistence that hunting be prohibited until an AHM process is established appears to be entirely compatible with AEWA's legal text. Paragraph 2.1.1 of the Agreement's Action Plan attempts to ensure that the hunting of Category 4 populations only occurs to the extent that this is sustainable, and it identifies international coordination and implementation of the principles of AHM as the appropriate avenue to achieve this. Ideally, when AEWA's parties adopt an ISAP making provision for AHM, they should also agree upon the approach to harvest regulation pending the establishment of this process. If there is evidence to suggest that harvest is currently hindering the population's restoration to an FCS, then the termination of hunting would be an acceptable interim measure. In light of the precautionary principle, this measure would also appear to be acceptable if there is uncertainty regarding the impact of current harvest levels and, having considered the circumstances of the population in question, the MoP concludes that a hunting moratorium is the most prudent interim means of avoiding significant harm.

For those ISAPs that envisage the development of an international AHM process, further scenarios arise once the appropriate international structures have been established to coordinate and guide this process's implementation. At present, the only example of this is the taiga bean goose. The taiga bean goose ISAP divides this subspecies into four management units[230] and defines target population sizes for each.[231] It calls for, *inter alia*, the development and implementation of an international AHM framework[232] and envisages that more precise measures and actions—including those "regarding possible hunting quotas and/or hunting bans"—will subsequently be agreed by range states within the decision-making framework of an international working group.[233] The plan's implementation

228. *Id*. at 56.

229. UNEP/AEWA Secretariat, *Proceedings of the Sixth Session of the Meeting of the Parties to the Agreement on the Conservation of African-Eurasian Migratory Waterbirds*, ¶ 295 (Nov. 9–14, 2015), https://perma.cc/B9D5-YN2B.

230. Marjakangas et al., *supra* note 221, at 11–12.

231. *Id*. at 36.

232. *Id*. at 38.

233. *Id*. at 36.

currently falls under the mandate of the AEWA EGMP. Thus far, the EGM International Working Group has adopted a closed hunting season for three of the management units because there is currently insufficient data to determine appropriate harvest strategies.[234] For the remaining unit, an international quota aimed at enabling the population's recovery was first agreed in 2017[235] and is revisited annually.[236]

Although ISAPs are not directly binding, the AEWA Action Plan requires parties to cooperate with a view to their implementation.[237] Their contents therefore carry more weight than mere recommendations, and this has been recognized by the AEWA MoP.[238] For those Column A populations covered by the paragraph 2.1.1 hunting exception, the measures called for by both ISAPs themselves and the decision-making structures through which they are implemented appear to have even greater legal significance. This is because hunting arguably needs to comply with these exhortations for it to be "conducted within the framework of an international species action plan" (that is, for it to satisfy the requirements of paragraph 2.1.1). Indeed, the taiga bean goose ISAP stresses that "hunting (sustainable or otherwise) which takes place outside the framework of an International Action Plan would be in breach of the Agreement."[239] Parties wishing to allow hunting must therefore ensure that their domestic legal regulations are responsive to the decisions made within this framework. This has proved to be especially challenging for populations in respect of which decisions are made annually concerning international harvest quotas and hunting seasons. For these populations, domestic harvest regulations must be sufficiently flexible to accommodate annual adjustments, which should ideally occur quickly enough to enter into force before the start of the hunting season.[240]

A final point regarding ISAPs as tools for coordinating sustainable harvest is that, despite this approach's advantages, the development of plans and the

234. *See*, *e.g.*, AEWA, *Report of the 1st Meeting of the AEWA European Goose Management International Working Group*, 12 (Dec. 14–16, 2016), https://perma.cc/U6YJ-4B7F.

235. AEWA, *Report of the 2nd Meeting of the AEWA European Goose Management International Working Group*, 13 (Jun. 15–16, 2017), https://perma.cc/8HJH-CKVT.

236. AEWA, *Report of the 3rd Meeting of the AEWA European Goose Management International Working Group*, 18 (Jun. 20–21, 2018), https://perma.cc/M673-NTVE [hereinafter *Report EGMP3*] (reporting on the most recent quota).

237. AEWA, *supra* note 11, annex 3 ¶ 2.2.1 (referring specifically to ISAPs for those Column A populations that are either listed in Category 1 or marked with an asterisk).

238. *E.g.* AEWA Res. 6.8, *Adoption and Implementation of International Single Species and Multi-species Action and Management Plans* (Nov. 9–14, 2015), https://perma.cc/BKN5-UCW6 (recalling that "although [international single species action plans (ISSAPs)] are not directly binding, Parties are under a legal obligation to cooperate with a view to implementing such plans and that ISSAPs are, therefore, not merely recommendations, and that Parties shall make every effort to implement such plans as an extension of their obligations under the Agreement").

239. Marjakangas et al., *supra* note 221, at 10.

240. *See further* Melissa Lewis, *Guidance on Implementing Adaptive Harvest Management through Domestic Legal Regulations*, EGMP Guidance No. 1 (2018), https://perma.cc/75WJ-RHRA (providing guidance on legislative approaches to support the annual regulation of hunting).

establishment and functioning of institutional structures to support their implementation are resource intensive.[241] In practice, resource constraints may consequently exclude the possibility of relying on the paragraph 2.1.1 exception in respect of some populations listed in Category 4 or marked with an asterisk. Category 4 in particular is expanding rapidly[242] and the majority of populations added to this category at the most recent AEWA MoP do not yet have dedicated ISAPs.[243] Amongst the Category 4 and asterisk-marked populations that *do* have ISAPs, several lack international working groups[244] and only one (the taiga bean goose) has an advanced structure for informing and coordinating decisions on harvest. Until the requisite plans have been established, the same legal constraints apply as to other Column A populations. In such instances, parties wishing to allow hunting will need to comply with the conditions for exemption identified in paragraph 2.1.3 of the AEWA Action Plan.[245] As noted above, this is also necessary should parties wish to allow forms of harvest other than hunting, regardless of whether or not an ISAP is in place. Since the exception requires that hunting, at a minimum, be subject to the same legal measures as the taking of Column B populations, failures to meet these minimum requirements (discussed *infra* Part IV.B) will similarly need to be justified under paragraph 2.1.3.

2. The Paragraph 2.1.3 Exemption System and its Flexibility to Accommodate Different Motivations for Harvest[246]

Paragraph 2.1.3 of the AEWA Action Plan permits parties to grant exemptions to, *inter alia*, the paragraph 2.1.1 prohibition on taking.[247] Importantly, these exemptions are not available in respect of the Agreement text's provisions on

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241. *E.g.* AEWA Secretariat, *EGMP Finance Report 2016-2018*, Doc. AEWA/EGMIWG/3.4 (2018), https://perma.cc/ZU9C-45NZ (reporting that the combined expenditure of the EGMP Secretariat and Data Centre in 2017—at which stage the EGMP was only supporting the management of two species—amounted to over €260,000).

242. The amendments agreed in 2018 at MoP7 increased the number of Category 4 populations from seven to 22, although some of these additions were a result of down-listings rather than up-listings.

243. *See* AEWA, *Summary of the Current Status of Species Action and Management Plan Production and Coordination with Recommendations to MOP for Extension, Revision or Retirement*, AEWA/MOP7.21 (Sept. 21, 2018), https://perma.cc/4DPS-8ZGY.

244. *Id.*

245. Unless they have entered a reservation in respect of the population's categorization.

246. The discussion in this section is partially based on AEWA, *Draft Guidance on Satisfying the Conditions of Paragraph 2.1.3 of the AEWA Action Plan*, UNEP/AEWA/MOP7.32, 4 (2018), https://perma.cc/3B8D-VZA8 [hereinafter *Guidance on Paragraph 2.1.3*], which was drafted by the author and adopted through AEWA Res. 7.8, *Revision and Adoption of Conservation Guidance*, ¶ 1(a) (Dec. 4–8, 2018), https://perma.cc/KGJ8-ND58.

247. Theoretically, these exemptions are also available in respect of the requirement that parties "prohibit deliberate disturbance in so far as such disturbance would be significant for the conservation of the population concerned." AEWA, *supra* note 11, annex 3 ¶ 2.1.1(c). However, it is difficult to envisage circumstances in which disturbance that is significant for a Column A population's conservation would satisfy the conditions in ¶ 2.1.3—in particular, the condition that exemptions "shall not operate to the detriment of the populations listed in Table 1."

FCS and sustainable use. Indeed, these central requirements are reflected in the conditions for all of the exemptions permitted by AEWA. Paragraph 2.1.3 provides as follows:

> Parties may grant exemptions to the prohibitions laid down in paragraphs 2.1.1 and 2.1.2, irrespective of the provisions of Article III, paragraph 5, of the Convention, where there is no other satisfactory solution, for the following purposes:
> (a) to prevent serious damage to crops, water and fisheries;
> (b) in the interests of air safety, public health and safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance to the environment;
> (c) for the purpose of research and education, of re-establishment and for the breeding necessary for these purposes;
> (d) to permit under strictly supervised conditions, on a selective basis and to a limited extent, the taking and keeping or other judicious use of certain birds in small numbers; and
> (e) for the purpose of enhancing the propagation or survival of the populations concerned.
> Such exemptions shall be precise as to content and limited in space and time and shall not operate to the detriment of the populations listed in Table 1. Parties shall, as soon as possible, inform the Agreement secretariat of any exemptions granted pursuant to this provision.

Thus, the provision identifies an exhaustive list of reasons that may justify exemptions. Some of these are qualified by specific limitations. For instance, parties may only rely upon ground (a) if it is demonstrable that the population being targeted poses a risk of damage to crops, water, or fisheries; that the anticipated damage would be *serious* (as opposed to minor); and that granting an exemption would *prevent* the damage in question.[248] In addition, the provision prescribes a number of general conditions—*all* of which must be satisfied for any paragraph 2.1.3 exemption to comply with AEWA.[249] A party wishing to allow harvest by means of exemption need not first seek permission from any of AEWA's institutions. It must, however, verify that the relevant conditions are met before it grants the exemption and notify the Agreement's Secretariat (ideally, immediately[250]) after it has been granted. It will also bear the burden of justifying its decision if called to do so under the AEWA Implementation Review Process.[251] The AEWA MoP recently adopted guidance to assist parties in ensuring that they only grant exemptions within the parameters prescribed by paragraph 2.1.3.[252] Notably, this

248. *Guidance on Paragraph 2.1.3*, *supra* note 246, at 4–5.
249. *Id.* at 4.
250. *Id.* at 8.
251. *See generally* AEWA Res. 4.6, *supra* note 101.
252. AEWA Res. 7.8, *supra* note 246.

paragraph is partially modelled on a provision of the Birds Directive which, in turn, largely mirrors a provision in the Bern Convention.[253] The development of AEWA's guidance therefore drew heavily from the existing guidelines on granting derogations/exceptions under the Directive and the Convention.[254]

The grounds of justification identified by paragraph 2.1.3 are primarily focused on addressing conflicts between the protection of AEWA populations and specified human interests, allowing continued research and educational activities, and accommodating measures that benefit the conservation of populations in respect of which exemptions are granted. Other motivations for harvest (such as the prevention of damage to property other than crops, water, or fisheries; the protection of flora and fauna in general; recreation; tradition; or subsistence/livelihood needs) are not mentioned explicitly. However, some grounds of justification are broadly framed and have the potential to accommodate a variety of motivations for harvest—in particular, grounds (b) and (d). The primary limitations on the former are that the interest concerned be public in nature and be sufficiently weighty to override the conservation benefits of upholding the prohibition of taking. This ground could, for example, be relied upon to protect other species of fauna or flora, provided that there are reasons justifying the prioritization of these species' protection over that of the AEWA population in respect of which the exemption is granted.[255] Ground (d) does not indicate particular purposes for which exemptions can be granted. AEWA's guidance advises that this ground can be relied upon to justify the taking and keeping, or other judicious use, of birds for "any reason *not already covered by* subparagraphs (a)–(c) or (e)."[256] The MoP has, in other words, recognized that, while a variety of reasons can potentially be covered by ground (d), these are not unlimited. Where a particular reason is already explicitly addressed by another subparagraph, the potential for granting an exemption should be assessed thereunder. It would seemingly follow that parties may not frame the purposes of their exemptions[257] in a manner that simply sidesteps the conditions prescribed by paragraph 2.1.3's more specific grounds of justification—for instance, by relying on ground (d) to prevent crop damage that is minor rather than serious or to protect public interests that are not imperative in nature.[258]

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253. Birds Directive, *supra* note 18, art. 9; Bern Convention, *supra* note 113, art. 9 (both including grounds of justification that are similarly worded to (though, in places, more flexible than) ¶ 2.1.3(a)-(d) of the AEWA Action Plan, and specifying that these can only be relied upon where there is "no other satisfactory solution").

254. *Guidance on Paragraph 2.1.3*, *supra* note 246, at 1 (identifying the documents which informed the guidance's development).

255. *See further id*. at 5 (discussing the scope of ¶ 2.1.3(b)).

256. *Id*. at 6 (emphasis added).

257. Such purposes should be indicated in parties' reports to the Secretariat (*id*. at 8).

258. *See also* Arie Trouwborst & Floor Fleurke, *Killing Wolves Legally – Exploring the Scope for Lethal Wolf Management Under European Nature Conservation Law*, 22 J. INT'L WILDLIFE L. & POL'Y

The above limitations notwithstanding, it is evident that, between them, grounds (a)–(e) encompass a wide range of motivations for harvest. However, parties' discretion to grant exemptions is curtailed significantly by paragraph 2.1.3's general conditions. Unlike the paragraph 2.1.1 exemption for hunting within the framework of ISAPs, paragraph 2.1.3 only allows exemptions to the extent that "no other satisfactory solution" is available. This requires that serious consideration be given to the purpose for which an exemption is sought and the range of solutions through which this purpose could potentially be achieved.[259] An exemption may only be resorted to if there are objective and verifiable reasons[260] to conclude that other solutions are unsatisfactory. For instance, it is arguably possible to rely on exemption ground (e) to justify hunting where this would generate conservation benefits for the hunted population and thereby enhance its survival. Yet, even if the potential for hunting to produce conservation benefits is demonstrable, an exemption may not be granted if such benefits can also be satisfactorily achieved through alternative means. Another example is that Column A populations may not be harvested for damage-prevention purposes if satisfactory non-lethal measures (for example, habitat management or scaring techniques) are available for preventing the damage in question. Nor can ground (d) be relied upon to permit livelihood-based harvest if ample alternative livelihood strategies are readily available. If alternative measures alone are insufficient for addressing the problem/situation in question, it may be appropriate to use them in combination with exemptions, though the latter must only be relied upon to the extent that they are necessary.[261]

Even if the purpose for which an exemption is sought is covered by one of the grounds in sub-paragraphs (a)–(e) and no other satisfactory solution is available for achieving this purpose, exemptions must not operate to the detriment of Table 1 populations. Read in light of AEWA's fundamental principles, "detriment" should be determined by considering the impact that an exemption would have on a population's conservation status.[262] Column A populations already have an unfavorable conservation status. It follows that they must not be harvested under exemption unless this would benefit their conservation or, if not beneficial, at least would not "impair the prospect of restoring a favourable conservation status."[263] Though not explicitly required by paragraph 2.1.3, the existence and implementation of an ISAP has the potential to assist parties to demonstrate that

231, 264 (2019) (exploring this argument in more detail in their interpretation of the EU Habitats Directive).

259. *Guidance on Paragraph 2.1.3*, *supra* note 237, at 4.

260. *Id.*

261. This follows from the AEWA guidance's recognition that national authorities should choose the most appropriate alternative "that will have the least adverse effects on the species, while solving the problem or situation." *Id.*

262. *Id.* at 7.

263. *Id.*

this is the case by ensuring that exemptions operate within a framework designed to promote the recovery of FCS and that their cumulative impact is not detrimental.

The requirement that exemptions not operate to the detriment of Table 1 populations has implications not only for whether an exemption should be granted, but also the limitations subject to which it is authorized and the monitoring of compliance with such limitations.[264] The need to limit and oversee exemptions' application in a manner that prevents detrimental impacts is, in other words, implicit in this requirement. Particular types of limitations are also expressed in paragraph 2.1.3's requirement that exemptions be "precise as to content and limited in space and time." Application of exemption ground (d) (the "judicious use" exemption) is further constrained by the requirements that use only be permitted "under strictly supervised conditions, on a selective basis and to a limited extent" and that only the use of "small numbers" of birds be allowed.[265] Thus, although this ground ostensibly covers a variety of motivations for harvest, in practice, its conditions are challenging to satisfy. Indeed, this is illustrated by various judgments of the Court of Justice of the European Union ("CJEU") concerning EU Member States' failures to meet the requirements of an almost identically-worded ground for derogation under the Birds Directive.[266] In other regions of AEWA's Agreement Area, many parties are known to suffer from weak monitoring and enforcement capacity,[267] and they may consequently find it difficult to satisfy the requirement that judicious use only occur under "strictly supervised conditions." Meeting this requirement would appear to be especially difficult in respect of use that occurs in remote areas[268] and does not lend itself to traditional means of oversight, such as licensing and reporting requirements. An obvious example is harvest for subsistence or livelihood purposes, which will also be poorly suited to the judicious use exemption when it is performed with the use of non-selective methods. Livelihood-based harvest, and its difficulties in satisfying the requirements of AEWA, are further unpacked in Part IV.B below.

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264. *See further id*.

265. *See further id* at 6-7 (advising parties on how to satisfy these conditions).

266. *See*, *e.g*., Case C-557/15, *Eur. Comm'n v. Republic of Malta* (Jun. 21, 2018), https://perma.cc/HE89-HNU6 (holding that a derogation allowing the traditional trapping of certain species of finch failed to meet the requirements concerning "small numbers," "judicious use," selectivity, and "strictly supervised conditions," and further that a clear and sufficient statement of reasons had not been provided concerning the absence of another satisfactory solution).

267. *E.g*. AEWA, *Plan of Action for Africa 2012-2017*, 10 (2012), https://perma.cc/8QH5-UJPP [hereinafter *Plan of Action for Africa 2012-2017*] (commenting on the absence of adequate frameworks and capacity to prevent illegal hunting in African countries).

268. Catherine Lehmann, *Review on hunting and trade legislation in countries relating to the species listed in Annex 2 to the African-Eurasian Migratory Waterbird Agreement (AEWA)*, 123 (2007), https://perma.cc/8NH4-RGRK.

3. Reliance on Reservations to Avoid Prohibiting Harvest

AEWA permits states and regional economic integration organizations to enter reservations in respect of any species covered by the Agreement, any provision of its Action Plan, and any amendment of its annexes (including both the Action Plan and the categorizations of particular populations in Table 1).[269] This enables individual parties to avoid some of the Action Plan's more stringent restrictions on harvest should they wish to do so. Importantly, however, reservations are not permitted in respect of provisions of the Agreement text. Thus, the only way of escaping these provisions is for reservations to be entered in respect of particular species' coverage by the Agreement.[270] In addition, AEWA only provides for the entry of reservations at the time of states' ratification/accession or, in the case of amendments to the Agreement's annexes, within a 90-day period following the amendment's adoption.[271]

A question arises concerning whether a reservation can ever be valid if entered *after* the 90-day deadline. The correct answer to this is debatable. On the one hand, AEWA's legal text explicitly limits the period within which reservations may be entered and makes no provision for the late entry of reservations. A strict interpretation of the Agreement would therefore dictate that no late reservations be accepted. Such an interpretation is arguably supported by Article 19(b) of the Vienna Convention on the Law of Treaties, according to which states may not formulate reservations if "[t]he treaty provides that only specified reservations, which do not include the reservation in question, may be made."[272] On the other hand, there are several examples of depositaries for treaties with similar reservation provisions to AEWA—including the CMS—being prepared to accept late reservations as valid, provided that no party objects thereto.[273] This approach

269. AEWA, *supra* note 11, arts XV, X(6).

270. *See generally* Lewis, *supra* note 83, at 42–43. At the 2018 AEWA MoP, some parties indicated that they would enter reservations in respect of the inclusion of European shag, *Phalacrocorax aristotelis*, in AEWA's Annex 2. However, only the Czech Republic ultimately entered a reservation concerning this listing, and this was only done because the requisite internal procedures for the country's approval of amendments to AEWA's annexes could not be undertaken within the requisite 90 days. *See* AEWA, *Consolidated Draft Report of the 7th Session of the Meeting of the Parties (MOP7) to the African-Eurasian Migratory Waterbird Agreement (AEWA), 4-8 December 2018, Durban, South Africa*, ¶¶ 115-117 (Dec. 7, 2018), https://perma.cc/32FS-YM75 [hereinafter *MoP7 Report*]; Ministry of Foreign Affairs of the Kingdom of the Netherlands, *Notification pursuant to Article XVII of the Agreement* (Mar. 15, 2019), https://perma.cc/9NG5-WVWJ.

271. AEWA, *supra* note 11, arts XV, X(6).

272. VCLT, *supra* note 29, art. 19(b).

273. *E.g*. Government of the Federal Republic of Germany, *Report of the Depositary*, UNEP/CMS/StC48/Doc.3 (Oct. 18, 2018), https://perma.cc/9N9G-Z9Y7 (asserting that a late reservation received from Zimbabwe could be considered legal if other CMS "signatory states" (presumably, this was intended to mean "parties") did not raise objections within 12 months); CITES, *Notification to the Parties*, No. 2017/029 (Apr. 6, 2017), https://perma.cc/P3EV-487E (explaining that the parties to CITES had been given the opportunity to object to several late reservations and that some had done so, with the result that the reservations would not be accepted for deposit).

recognizes that, ultimately, the mandate to determine how a treaty's provisions are to be interpreted and applied lies with its parties rather than its depositary, and gives parties the opportunity to tacitly agree to a late reservation in instances in which they have not explicitly endorsed guidance on how such situations should be addressed. The AEWA Depositary was, for the first time, confronted with this problem in March 2019, when the European Union entered a late reservation concerning various populations' Table 1 up-listings.[274] In the absence of a prior MoP resolution on late reservations,[275] the Depositary has notified parties that a reservation was received after the ordinary deadline and that:

> [the late reservation] may be considered legal and deemed to have been accepted by the Parties as of the date on which it was made, in the absence of any objection on the part of one of the Parties, either to the deposit itself or to the procedure envisaged, by the end of a twelve month period from the date of the present notification, that is on 30 March 2020.[276]

Should a late reservation not be condoned, the only remaining way through which a party could enter a reservation would appear to be the unusual and cumbersome (though, in principle, permissible) avenue of denouncing AEWA and, a year later,[277] re-ratifying the Agreement with a reservation.[278]

See also Daniel Müller, *Reservations and Time: Is There Only One Right Moment to Formulate and to React to Reservations?*, 24 EUR. J. INT'L. L. 1113, 1120–24 (2013), https://perma.cc/GZP7-JZRW; *Guide to Practice on Reservations to Treaties*, ¶ 2.3, [2011] 2 Y.B. Int'l L. Comm'n 26, U.N. Doc. A/CN.4/SER.A/2011/Add.1 (Part 2) (providing a broader discussion of the late formulation of reservations to treaties).

274. MINISTRY OF FOREIGN AFF. OF THE KINGDOM OF THE NETH., AGREEMENT IN THE CONSERVATION OF AFRICAN-EURASIAN MIGRATORY WATERBIRDS (THE HAGUE, 15 AUGUST 1996) NOTIFICATION PURSUANT TO ARTICLE XVII OF THE AGREEMENT (2019), *available at* https://perma.cc/83HP-7P4U. This late entry from the EU under AEWA is somewhat ironic insofar as, in the very same month that it was received, the EU also decided to object to Zimbabwe's late reservation under the CMS (and thereby invalidate that reservation) on the basis that it is important to adhere to the rules prescribed by the Convention's legal text. *See* COUNCIL OF THE EUR. UNION, OUTCOME OF THE 3676TH COUNCIL MEETING 10 (2019), https://perma.cc/TZ3W-S3QB.

275. A MoP resolution providing guidance as to whether late reservations are acceptable, and, if so, in what circumstances and according to which procedures, would make a welcome addition to AEWA's body of guidance. Notably, the need for guidance of this nature has recently been recognized under CITES. Although the CITES Depositary has previously afforded parties the opportunity to condone late reservations, the CITES Standing Committee felt that the acceptance of such reservations has the potential to undermine CITES' integrity and is inappropriate. At its 2019 meeting, the CITES CoP therefore approved resolution text acknowledging that there are different interpretations of the Convention's provisions on reservations, but nevertheless requesting the CITES Depositary *not to accept* any reservations received after the prescribed deadline. *See* CITES Res. Conf. 4.25 (Rev. CoP18), *Reservations*, ¶ 6 (Aug. 17–28, 2019), https://perma.cc/HFD5-AQXF.

276. MINISTRY OF FOREIGN AFF.OF THE KINGDOM OF THE NETH., *supra* note 274.

277. AEWA, *supra* note 11, art. XVI (on denunciation).

278. *See, e.g.*, Alexander Gillespie, *Iceland's Reservation at the International Whaling Commission*, 14 EUR. J. INT'L L. 977 (2003) (describing how Iceland used this approach to achieve a reservation in the context of the International Whaling Commission).

A number of reservations relevant to waterbird harvest have thus far been entered *within* the deadlines prescribed by AEWA's legal text. Upon ratifying the Agreement, Iceland entered a reservation in respect of the Action Plan's restrictions on taking, the ambit of which was limited to specific species.[279] In 2016, several reservations were also entered in respect of the up-listing of certain waterbird populations, [280] and the same occurred in 2019.[281] The EU warrants further discussion in this regard. Although the Birds Directive requires EU Member States to prohibit the deliberate killing or capture of most of the species to which it applies,[282] Annex II identifies a list of species that remain huntable.[283] In instances in which populations of these species have qualified for inclusion in AEWA's Column A and this would require parties to prohibit hunting, the European Commission therefore enters reservations on behalf of the EU (and those of its Member States that are parties to AEWA) so as to avoid having to amend the Birds Directive.[284]

The entry of an EU-wide reservation can result in the majority of a Column A population's principal range states not being obliged to treat the population as such.[285] Notably, however, the Commission encourages Member States to respect the objective of *not* hunting the populations for which it has entered reservations.[286] It must also be remembered that Column A is essentially dedicated to populations with an unfavorable conservation status and in need of recovery. Even with a reservation to this categorization in place, parties therefore risk infringing other provisions of AEWA[287] if they permit hunting to continue without cooperating to ensure that its cumulative impact is sustainable and does not impede the population's restoration to a favorable conservation status. Incidentally, they also risk contravening Article 7 of the Birds Directive insofar as this provision requires EU Member States to ensure that hunting does not

279. AEWA, *Status Report*, AEWA/StC9.6, 4–5 (Sept. 9, 2013) [hereinafter *Status Report*], https://perma.cc/EN3D-LWGJ.

280. AEWA, *Report of the Depositary*, AEWA/StC12.4, 2 (Jan 6, 2017) [hereinafter *Report of the Depositary*], https://perma.cc/H3HJ-R792 (reservations entered by Denmark, the EU and Sweden).

281. Ministry of Foreign Affairs of the Kingdom of the Netherlands, *supra* note 270 (reservations entered by Norway, Switzerland, Denmark and Iceland).

282. Birds Directive, *supra* note 18, art. 5.

283. *Id*. art. 7.

284. *E.g*., *Report of the Depositary*, *supra* note 280; *MoP7 Report*, *supra* note 281, ¶ 114 (explaining the reason for the EU's entry of reservations). In light of this resistance to amend the Birds Directive, the EU will clearly be placed in a very difficult position should its late reservation following AEWA MoP7 ultimately be rejected by other parties to the Agreement.

285. *E.g*., the EU's reservation in respect of the velvet scoter covers all but two of this population's principal range states. *Report of the Depositary*, *supra* note 280, at 2; read with Mindaugas Dagys & Richard Hearn, *Draft AEWA/EU International Single Species Action Plan for the Conservation of the Velvet Scoter (*Melanitta fusca*) – Western Siberia & Northern Europe/NW Europe Population*, AEWA/MOP7.23, 6 (Aug. 28, 2018), https://perma.cc/4MYS-N9AG.

286. *MoP7 Report*, *supra* note 270, ¶ 114.

287. In particular, AEWA, *supra* note 11, art. II(1), art. III(2)(b), annex 3 ¶ 4.1.1.

jeopardize conservation efforts in species' distribution area and that it complies with the principles of wise use.[288]

Of course, AEWA permits the hunting of some Column A populations to continue within the framework of an ISAP endeavoring to implement AHM. The EU has indicated its willingness to withdraw certain reservations once the appropriate frameworks are in place for harvest to occur under this exemption.[289] Interestingly, while the exemption is *not* available for populations listed in Category 1 of Column A, or in Category 2 or 3 without an asterisk, the existence of EU reservations has the potential to influence the content of AEWA's ISAPs for these populations. This is illustrated by the recently-adopted[290] joint AEWA-EU ISAP for the Western Siberia & Northern Europe/NW Europe population of velvet scoter, *Melanitta fusca*. This population is listed in Category 1(b) of Column A due to the species' Red List classification.[291] AEWA's legal text therefore requires parties to prohibit taking, and makes no provision for AHM. However, the EU and its Member States have a reservation in place concerning the population's categorization.[292] Rather than envisaging the complete prohibition of taking, the ISAP therefore calls for the sustainability of hunting to be assessed and managed using AHM methods.[293] This example illustrates an avenue for addressing stakeholders' concerns regarding, *inter alia*, Category 1(b) of Column A (discussed *supra* Part III.B). That said, it is by no means ideal for AEWA's ISAPs to endorse activities which, in principle, are prohibited by the Agreement's legal text. Nor is it ideal for the EU to secure the inclusion of such activities in an ISAP by means of reservation, while simultaneously encouraging Member States to respect AEWA's objective of not hunting the population in question. Simply relying on parties' reservations therefore arguably does not provide an appropriate long-term strategy for permitting the development of additional AHM frameworks under the Agreement.

D. POTENTIAL FOR ADJUSTING AEWA'S RESTRICTIONS ON THE HARVEST OF COLUMN A POPULATIONS

AEWA's annexes can be amended with the support of a two-thirds majority of the parties present and voting.[294] Should the Agreement's MoP deem fit to do so, it could therefore introduce amendments aimed at either constricting or expanding parties' discretion to allow the harvest of certain populations.[295] In light of the

288. Birds Directive, *supra* note 18, arts. 7(1), 7(4); *see also id*. art. 2.
289. *MoP7 Report*, *supra* note 270, ¶ 114.
290. AEWA Res. 7.5, *supra* note 133, ¶ 1.
291. AEWA, *supra* note 11, annex 3 tbl. 1.
292. *Report of the Depositary*, *supra* note 280.
293. Dagys & Hearn, *supra* note 285, at 11.
294. AEWA, *supra* note 11, art X(5).
295. *See* Lewis, *supra* note 83, at 41 (observing that, although the majority of the amendments to AEWA's annex 3 have thus far had the effect of strengthening parties' legal commitments, it is also possible for amendments to weaken such commitments).

various concerns highlighted above, this section will focus on the latter. Three possible approaches can be envisaged for increasing parties' flexibility to permit the harvest of Column A populations (of which combinations would also be feasible): (1) adding further asterisks to existing listings/future up-listings; (2) adjusting the criteria for Table 1's categorizations; and (3) adjusting the legal consequences attached to particular categorizations by amending the AEWA Action Plan.

For populations listed in Category 2 or 3 of Column A, the addition of an asterisk can result in AHM being permitted within the framework of an ISAP. The creation of the asterisk was a political compromise, and this is the only aspect of AEWA's Table 1 categorizations that is not based on biological criteria. At the time of the Agreement's adoption, seven populations were marked with asterisks.[296] All but two have since been down-listed due to improvements in their conservation status.[297] It is unclear whether AEWA's drafters envisaged the possibility of adding further asterisks to Table 1 subsequent to the Agreement's entry into force. No provision is made for this in the Agreement itself, and Table 1's Key to Classification fails to identify any criteria for applying the asterisk. However, following a suggestion by the EU,[298] MoP5 allowed an asterisk to be added to the listing of the taiga bean goose when this population was up-listed to Category 3 of Column A.[299] The parties therefore appear to be in agreement that the addition of asterisks remains possible.[300] Given that the criteria for various Table 1 categorizations do not themselves consider the extent to which harvest poses a threat or its potential to offer conservation benefits, the availability of the asterisk provides a means of accommodating these considerations while avoiding having to satisfy the more stringent requirements for a paragraph 2.1.3 exemption. On the other hand, this mechanism has the potential to dilute the advantages of AEWA's categorization process (discussed *supra* Part III.B). If proposals for the addition of asterisks become a more common feature of AEWA negotiations, there is arguably a need to introduce measures aimed at ensuring that this is not abused. This could, for instance, be done by amending Table 1's Key to Classification to identify criteria for the use of asterisks or by amending paragraph 2.1.1 of the Action Plan to include more detailed criteria that an ISAP and

296. AEWA, *Final Act*, *supra* note 218.

297. *Compare id*.; AEWA, *supra* note 11, annex 3 tbl. 1.

298. AEWA, *Comments from the Parties to the Proposals for Amendments to Annex 3 (Action Plan and Table 1) of AEWA*, AEWA/MOP5.20/ Addendum Rev.1 (Apr. 5, 2012), https://perma.cc/T8SB-V24M.

299. AEWA, *supra* note 11, annex 3 tbl. 1.

300. For populations already listed in Category 2 or 3 of Column A, the addition of an asterisk would need to follow the ordinary procedure for amendment of the Agreement's annexes. For populations being up-listed or down-listed, the proposed asterisk would either need to be included in the initial proposal to amend the population's listing or be proposed by another party in response to the up- or down-listing proposal. *See further id*. art. X(3) (describing the procedure for proposing amendments and submitting comments on such proposals prior to the MoP).

its supporting institutions should satisfy to provide an acceptable framework for hunting.

Currently, the potential to add asterisks is available for populations in Category 2 or 3 of Column A, but not Category 1. As noted above, some stakeholders believe that there is a need to better facilitate the AHM of certain Category 1 populations. If the MoP agrees that this is desirable, it could be achieved by amending Table 1's criteria for categorization (a move for which there is already precedent[301]). It has, for instance, been suggested that the inclusion in Category 1 of large populations of globally threatened species could be avoided by adding a size threshold to the relevant criteria.[302] To elaborate: if Category 1(b) of Column A were adjusted to include populations that both belong to globally threatened species *and* number less than a particular amount of birds, the remaining populations of threatened species could theoretically be included in a category that accommodates AHM within the framework of an ISAP. For instance, a new sub-category for globally threatened populations numbering above the threshold could be added to Category 2 or 3, thereby making it possible to add an asterisk. Alternatively, these populations could be added to Category 4 and receive the same treatment as Near Threatened populations.

Yet another option would be to leave the Table 1 listing criteria in their current form, but alter the legal obligations accompanying particular categorizations. The most obvious way of doing this would be to simply amend paragraph 2.1.1 of the Action Plan so as to expand the availability of the paragraph's existing exception for hunting within the framework of ISAPs.[303] An amendment could, for instance, make it possible to add asterisks to certain Category 1 populations. It could also theoretically do away with the asterisk system by simply linking the exception to entire categories of populations (as is currently the case for Category 4).

Importantly, the MoP's discretion to amend the AEWA Action Plan is not without limitations. The Action Plan is intended to be consistent with AEWA's objective and the general conservation measures identified in Article III of the Agreement.[304] Any amendment of the Action Plan must therefore take these into consideration.[305] It follows that amendments cannot allow harvest that would be unsustainable and hinder recovery efforts. Any amendment expanding the Column A populations that can be hunted within the framework of ISAPs must therefore be approached with caution and (as touched on above) should

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301. *E.g.*, AEWA, *Res. 7.3, Adoption of Amendments to the AEWA Annexes* (Dec. 4–8, 2018), https://perma.cc/Y94N-MW9V (amending the criteria for several categories in Columns A and B).

302. *TC14 Report*, *supra* note 202, ¶ 69 (suggestion by representative of CIC).

303. In principle, the MoP could also amend the criteria for exemption under ¶ 2.1.3 of the Action Plan—however, this is probably less likely than an amendment of ¶ 2.1.1, due to the former's alignment with the Birds Directive and Bern Convention.

304. AEWA, *supra* note 11, arts. II(1), IV(1).

305. *Id.* art. IV(3). Although it is, in principle, possible for the MoP to amend AEWA's Agreement text, this process is much more cumbersome than amending the Action Plan (*see id.* art. X(4)).

potentially be accompanied by additional criteria aimed at ensuring sustainability. It must further be remembered that Article III(2)(a) of AEWA requires that parties accord the same strict protection for endangered migratory waterbirds as is provided by Article III(4)–(5) of the CMS. This provision seemingly limits the populations that can be brought within the ambit of AEWA's exception for hunting within the framework of ISAPs—at the very least excluding populations in Category 1(a) of Column A (that is, CMS Appendix I species) from this exemption.[306]

IV. POPULATIONS FOR WHICH HARVEST IS PERMITTED IN PRINCIPLE

Populations of migratory waterbirds that don't meet the criteria for inclusion in Column A of AEWA's Table 1 are included in Column B if they either: (i) number between "around 25,000 and around 100,000 individuals," or (ii) exceed this population size, but are nevertheless considered to be in need of special attention due to additional factors concerning their range, habitat, or population trend. Remaining populations are included in Column C, provided that they could significantly benefit from international cooperation.[307] The harvest of both Column B and C populations is permitted in principle. However, as has already been canvassed in Part III.A above, the harvest of these populations may need to be restricted in order to protect Column A populations with which they overlap. Parties must also ensure that the harvest of Column B and C populations is sustainable and must comply with the other generally applicable provisions outlined in Part II.A of this Article. For Column C populations (for example, all AEWA-listed populations of mallard, *Anas platyrhynchos platrhynchos*, and garganey, *Spatula querquedula*[308]), parties have considerable discretion in how they go about regulating harvest to ensure sustainability. States' discretion is more constrained in respect of Column B populations (for example, populations of pygmy cormorant, *Microcarbo pygmaeus*, and red-crested pochard, *Netta rufina*[309]), for which the AEWA Action Plan prescribes several types of harvest restrictions. This Part examines the scope of these restrictions and parties' flexibility to deviate therefrom via exemption or reservation.

A. HARVEST RESTRICTIONS IN RESPECT OF COLUMN B POPULATIONS

Paragraph 2.1.2 of the AEWA Action Plan requires that parties regulate the taking of birds and eggs from Column B populations with the object of maintaining them at, or contributing to their restoration to, an FCS and ensuring that their use is sustainable. It proceeds to identify a series of compulsory legal restrictions on taking and to require that parties prohibit the possession, utilization of, and

306. *See further* Lewis, *supra* note 26.
307. AEWA, *supra* note 11, annex 3 tbl. 1.
308. *Id.*
309. *Id.*

trade in birds and eggs (or the readily recognizable parts and derivatives thereof) that have been taken in contravention of any prohibition laid down pursuant to these provisions.[310] The provision's use of the term "taking" means that the requisite regulations must extend beyond hunting so as also to encompass other forms of deliberate killing, as well as capture, harassment, and attempts to engage in such conduct.

The first measure required is a prohibition on "the taking of birds belonging to the populations concerned during their various stages of reproduction and rearing and during their return to their breeding grounds if the taking has an unfavourable impact on the conservation status of the population concerned."[311] Unlike the corresponding provision in the Birds Directive,[312] this provision is not framed in absolute terms. Rather, parties' obligation to impose seasonal restrictions on the taking of Column B populations hinges upon the impact that such taking would have on a population's conservation status. If the impact would not be unfavorable, a prohibition is not required. This provides some flexibility for parties in which there is a tradition of spring hunting. On the other hand, if the impact *would* be unfavorable, there appears to be little room for escaping this obligation, as is explained in the discussion of exemptions and reservations below.[313]

Secondly, parties are required to "regulate the modes of taking."[314] In 2012, this provision was expanded to require that parties "in particular prohibit the use of all indiscriminate means of taking and the use of all means capable of causing mass destructions, as well as local disappearance of, or serious disturbance to, populations of a species," and to include a list of means of taking that must be prohibited.[315] The language for the first portion of this addition was drawn from the Revised African Convention on the Conservation of Nature and Natural Resources[316] and is also extremely similar to that appearing in the Bern Convention.[317] The list of prohibited means of taking was modelled on lists appended to the Bern Convention[318] and Birds Directive.[319] A potential criticism

310. *Id*. annex 3 ¶ 2.1.2(d).

311. *Id*. annex 3 ¶ 2.1.2(a).

312. Birds Directive, *supra* note 18, art. 7(4).

313. *See also supra* Part II.C (discussing the relevance of the precautionary principle in the context of this particular provision); Madsen et al., *supra* note 3, at 20–22 (providing guidance on the provision's implementation).

314. AEWA, *supra* note 11, annex 3 ¶ 2.1.2(b).

315. AEWA, Res. 5.6, *supra* note 214.

316. Revised African Convention, *supra* note 113, art. IX(3)(b)(iii).

317. Bern Convention, *supra* note 113, art. 8. Similarities between the African and Bern Conventions are unsurprising insofar as the latter was one of the treaties from which inspiration was drawn when revising the former. *See also*, Morné van der Linde, *A Review of the African Convention on Nature and Natural Resources*, 2 AFR. HUM. RTS. L. J. 33, 57 n.139 (2002) (listing international instruments from which inspiration was drawn "in order to bring the African Convention in line with current environmental developments").

318. Bern Convention, *supra* note 113, app. IV.

319. Birds Directive, *supra* note 18, annex IV.

of drafters' reliance on lists developed in a European context is that these might be under-inclusive for the purposes of regulating taking in all parts of AEWA's Agreement Area. However, AEWA's list of prohibited means of taking is not exhaustive, with the result that even non-listed methods of taking must be prohibited if they are indiscriminate or are capable of causing mass destructions, local disappearance, or serious disturbance. Another potential criticism of the list is that it includes certain methods of taking that are used to harvest birds for livelihood purposes in parts of the AEWA Agreement Area. For example, in the Sahel region of Africa, where the consumption and sale of waterbirds contribute to food security and livelihoods, these species are caught using a wide variety of devices, including fishing nets, hook lines, snares and traps.[320] To address this reality, an exemption has been incorporated into the AEWA Action Plan, which permits parties to allow otherwise prohibited methods of taking in order to "accommodate use for livelihood purposes, where sustainable."[321] The MoP's willingness to create this ground of exemption reflects an important recognition that, while European instruments are a valuable source of ideas for developing provisions of the AEWA Action Plan, such provisions should also be tailored to the needs of other portions of the Agreement Area. The exemption could further play a role in facilitating community-based natural resources management, the importance of which has previously been recognized in efforts to improve AEWA's implementation in Africa.[322] However, the exemption is accompanied by various difficulties, which are discussed below.

AEWA's specific limitations on the seasons in which, and methods through which, taking may occur are proceeded by a broadly-phrased requirement to "establish limits on taking, where appropriate, and provide adequate controls to ensure that these limits are observed."[323] The nature of these limits is not specified in AEWA's legal text itself, which instead leaves parties the discretion to apply whichever types of restrictions they consider to be appropriate. However, a variety of possibilities are identified by the Agreement's *Guidelines on Sustainable Harvest of Migratory Waterbirds*. Examples include limits on the persons authorized to harvest; the quantities, age, or sex of birds that they are allowed to harvest; and the areas in which, or days and times during which, harvest may occur.[324]

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320. LEO ZWARTS ET AL., LIVING ON THE EDGE: WETLANDS AND BIRDS IN A CHANGING SAHEL 197 (2010).

321. AEWA, *supra* note 11, annex 3 ¶ 2.1.2(b).

322. *E.g. Plan of Action for Africa 2012-2017*, *supra* note 267, complementary target 2.

323. AEWA, *supra* note 11, annex 3 ¶ 2.1.2(c).

324. Madsen et al., *supra* note 3, at 52–54.

B. GRANTING EXEMPTIONS TO RESTRICTIONS ON THE HARVEST OF COLUMN B POPULATIONS

The exemptions articulated in paragraph 2.1.3 of the AEWA Action Plan (discussed *supra* Part III.C) may also be invoked in respect of the prohibitions required by paragraph 2.1.2. In practice, however, there appears to be fairly limited scope for relying on these exemptions to allow harvest that is otherwise prohibited by paragraph 2.1.2. The paragraph's requirement that taking be prohibited during stages of reproduction, rearing, and return to breeding grounds only applies if taking would have an unfavorable impact on conservation status. Where this is the case, it would seemingly be impossible to satisfy paragraph 2.1.3's requirement that exemptions "not operate to the detriment of the populations listed in Table 1." Insofar as Column B populations are concerned, the primary relevance of exemptions is therefore their potential for allowing methods of taking that parties are otherwise required to prohibit. Examples include allowing birds to be captured with the use of nets or traps for the purposes of research, reestablishment, or culling, where there is no other satisfactory solution and the other conditions for exemption are satisfied. A question arises about whether the "judicious use" exemption may be relied upon to allow indiscriminate means of taking given that this exemption only covers use occurring "on a selective basis." The MoP-adopted guidance on this exemption advises that "[t]he methods of taking authorized by the exemption should either avoid the taking of non-target species or, where the methods themselves are not entirely selective, allow for individuals of the target species to be kept and those of other species to be released unharmed."[325] In other words, this condition has been interpreted as referring to the *effect*, rather than the *method*, of taking, with the result that the judicious use exemption can potentially be relied upon to justify the use of non-selective methods of capture.

Of course, the paragraph 2.1.3 exemptions only become relevant in those instances in which the livelihoods exemption permitted by paragraph 2.1.2 is unavailable. This exemption offers greater flexibility than paragraph 2.1.3—especially insofar as it can be relied upon without having to establish the absence of satisfactory alternatives. It appears clear from the phrase "*use* for livelihood purposes," and is confirmed by the provision's drafting history,[326] that this exemption's purpose is to accommodate situations in which harvested birds are *themselves* relied upon to support livelihoods. The taking of birds with the purpose of protecting *other* resources that support livelihoods (such as crops) therefore would not qualify. Even so, concerns have been raised regarding the exemption's breadth, which "appears to provide many possibilities for

325. *Guidance on Paragraph 2.1.3*, *supra* note 246, at 6.

326. *Proposals to MoP5*, *supra* note 215, at 42 (explaining the reason underlying this exemption as being that "throughout Africa, individuals make use of snares, limes, nets, traps, hooks etc. when hunting as a livelihoods strategy").

use."[327] Use occurring for "livelihood purposes" encompasses more than traditional or subsistence use. Reading the exemption alongside AEWA's *Guidelines on Sustainable Harvest of Migratory Waterbirds*, it can evidently be relied upon to allow harvesting for both direct consumption and selling at markets, provided that the latter does not support an existence beyond a livelihood threshold.[328] The *Guidelines* also recognize that what constitutes "a livelihood threshold" will vary from one country to another,[329] but they do not advise parties on how this threshold should be determined. The absence of an agreed approach for assessing where livelihood harvest ends and commercial harvest begins, presents difficulties for establishing whether parties are operating within the limits of this exemption. Ideally, additional guidance should be developed on this aspect of the exemption.

Assuming that the use in question is indeed livelihood-based, it may only be allowed if sustainable. Compliance with this condition will often be difficult, if not impossible, to demonstrate, given the dearth of information on harvest regimes and their impacts on waterbird populations in parts of the AEWA Agreement Area. Indeed, the AEWA MoP has expressed its awareness that "there is little information about the nature and extent of waterbird harvests, and its legal and cultural regulation in Africa, the Middle East, and Central Asia on which assessments of sustainability can be based."[330] The information that *is* available suggests that high levels of harvest are a cause for concern for some populations. For instance, the Northern Europe & Western Siberia/West Africa population of ruff, *Calidris pugnax*, appears in Column B of Table 1[331] and is therefore a population for which the livelihoods exemption is available in principle. In the Inner Niger Delta, Mali, large numbers of ruff are caught with the use of fishing nets for consumption by local people and sale at markets.[332] On the basis of data from the 1990s and 2000s, Zwarts *et al*. observed the following:

> The recorded annual catch is estimated to vary between 10 000 and 40 000 Ruff, but twice this number is possibly taken (20 000-80 000) in the Inner Niger Delta. This would amount to 15-60% of the population wintering in the area, a staggering figure which does not include natural mortality from starvation.
>
> Catching Ruff in the Inner Niger Delta is highly biased against females. . . . Even when only 15% of the wintering birds is captured annually (a minimum),

327. AEWA, *Report of the 5th Session of the Meeting of the Parties (MOP5) to the African-Eurasian Migratory Waterbird Agreement (AEWA), 14–18 May 2012, La Rochelle, France*, ¶ 264 (May 14–18, 2012), https://perma.cc/F3YQ-CNGS (quoting a comment made on behalf of the EU and its Member States, which further urged parties to "carefully assess to which extent they will avail of this possibility so that it does not lead to a general use of the listed methods").

328. Madsen et al., *supra* note 3, at 9, 38.

329. *Id*. at 38.

330. AEWA Res. 6.4, *supra* note 97.

331. AEWA, *supra* note 11, annex 3 tbl. 1.

332. ZWARTS ET AL, *supra* note 320, at 357–59.

> the selective killing of females must have a considerable impact on the population level.[333]

Allowing harvest to occur at this scale, without establishing measures to monitor and control its levels and impacts would clearly contravene AEWA's requirements. Interestingly, in its 2018 national report, Mali indicated that its legislation currently prohibits hunting with the use of nets and that reliance on AEWA's livelihoods exemption is not applicable.[334] It is unclear precisely what was meant by the latter statement, and an investigation of the adequacy of Mali's legislation, and its enforcement thereof, falls beyond the scope of this Article.[335] It should, however, be noted that AEWA's livelihood exemption does not prescribe the types of controls through which harvest should be managed or require that these be imposed through top-down regulation. Voluntary, bottom-up initiatives[336] may therefore be sufficient, provided that these are effective in achieving sustainable harvest.

Ultimately, the responsibility of demonstrating that the conditions for exemption are satisfied lies with the party deviating from AEWA's ordinary requirements. However, as in the case of AEWA's paragraph 2.1.3 exemptions, this will be easier to do where mechanisms are in place to coordinate data-collection and harvest regulation at flyway-level. Insufficient data has thus far precluded international-scale harvest management in Africa.[337] However, the *AEWA Plan of Action for Africa 2019-2027* envisages actions to improve harvest data (including from harvest for livelihood purposes) in this region and develop at least one pilot AHM plan, along with a coordination mechanism to support its implementation.[338]

The livelihood exemption is only available in respect of paragraph 2.1.2's requirement to prohibit the use of certain problematic means of taking. Unlike the paragraph 2.1.3 exemptions, it therefore cannot be applied in respect of

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333. *Id*. at 359.

334. GOV'T OF MALI, RAPPORT SUR LA MISE EN ŒUVRE DE L'AEWA POUR LA PÉRIODE 2015-2017 5 (2018), https://perma.cc/2525-YVHX.

335. Note, however, that efforts to assess and promote the sustainable management of migratory waterbirds in the Inner Niger Delta and other Sahelian wetlands are currently in motion under the "RESSOURCE" project. *See* Food & Agric. Org. [FAO], *Contributing to Sahel Food Security Through Sustainable Waterbird Management* (Oct. 6, 2016), https://perma.cc/4QHC-S2BV (explaining that this initiative between the Food and Agriculture Organization of the United Nations, the French Facility for Global Environment and other partners (including the AEWA Secretariat) includes both monitoring and capacity-building activities, and aims to support the development of an improved legal and policy framework for achieving sustainable hunting).

336. An example of the use of bottom-up approaches to regulating the off-take of waterbirds is seen at Lake Chilwa, Malawi. *See, e.g.*, *Lake Chilwa Wetland*, UNESCO, https://whc.unesco.org/en/tentativelists/5604/ (last visited Jan. 22, 2019) (explaining that there are currently "over 1,300 registered bird hunters who belong to at least 20 bird hunting clubs that form part of the Lake Chilwa Hunters Association which was formed with the aim of sustainably managing the utilisation of sedentary and migratory water birds").

337. Madsen et al., *supra* note 3, at 14.

338. AEWA, *AEWA Plan of Action for Africa 2019-2027 – A Guide to the Implementation of the AEWA Strategic Plan 2019-2027 in the African Region*, AEWA/MOP7.16, 21–22, 25 (Mar. 8, 2019), https://perma.cc/3VGB-CYPN.

parties' obligations to protect Column A populations. Where there is geographic and temporal overlap between Column A populations and populations of birds being targeted for harvest, it follows that parties will be unable to rely on the livelihood exemption to excuse the use of methods that result in the killing, capture, or significant disturbance/harassment of birds from populations in Column A. If this occurs, a party will be in breach of its AEWA commitments unless the conditions of paragraph 2.1.3 are satisfied.

As a final note, AEWA's exemptions provisions cannot be relied upon to excuse states' failure to comply with their more stringent obligations under other international instruments.[339] It is therefore significant that neither the Bern Convention nor the Revised African Convention make provision for a similar exemption to accommodate use for livelihood purposes,[340] and that almost half of AEWA's range states (fifty-four) are currently party to at least one of these instruments, as is the European Union.[341]

C. PARTIES' ENTRY OF RESERVATIONS REGARDING RESTRICTIONS ON THE HARVEST OF COLUMN B POPULATIONS

Several parties have entered reservations in respect of the prohibitions required by paragraph 2.1.2 of the AEWA Action Plan.[342] Two observations warrant mention in this regard. The first concerns reservations entered in respect of the requirement to prohibit taking during stages of reproduction, rearing, and return to breeding grounds if this would have an unfavorable impact on conservation status.[343] If a party that has entered such a reservation allows a Column B population to be taken during these periods, and this has an unfavorable impact on the population's conservation status, the party cannot be said to have contravened

339. AEWA, *supra* note 11, art. XI (providing that AEWA's provisions do not affect the obligations of parties deriving from existing international treaties).

340. The Revised African Convention does not list all of the problematic methods of taking that are listed by the Bern Convention, but it nevertheless contains a broadly-framed requirement that parties prohibit methods of taking which are indiscriminate or capable of causing mass destructions and local disappearance or serious disturbance. *See* Revised African Convention, *supra* note 113, art. IX(3)(b)(iii), annex 3. This is a stricter requirement than that found in the Convention's 1968 predecessor. *See* African Convention on the Conservation of Nature and Natural Resources, Sept. 15, 1968, art. VII(2), https://au.int/sites/default/files/treaties/7763-treaty-0003_-_african_convention_on_the_conservation_of_nature_and_natural_resources_e.pdf (providing that certain methods of hunting or capture be completely prohibited, but that others (including, *inter alia*, the use of nets, traps and snares) only be prohibited "as far as possible").

341. Council of Europe, *Chart of Signatures and Ratifications of Treaty 104: Convention on the Conservation of European Wildlife and Natural Habitats*, *available at* https://perma.cc/NMH2-LU29 (last visited Jan. 4, 2019); African Union, *List of Countries Which Have Signed, Ratified/Acceded to the Revised African Convention on the Conservation of Nature and Natural Resources*, https://perma.cc/83C3-NTPC (last visited July 17, 2018).

342. *Status Report*, *supra* note 279, at 4 (reservations by Finland in respect of the Aland Islands); *Report of the Depositary*, *supra* note 280, at 1 (reservations by Belarus).

343. As have been entered by Belarus and Finland. *See Status Report*, *supra* note 279, at 4; *Report of the Depositary*, *supra* note 280, at 1.

paragraph 2.1.2 of the AEWA Action Plan. In such circumstances, the party *would*, however, appear to be in contravention of other provisions of the Action Plan and Agreement text (in particular, those requiring that use be sustainable, and that species be maintained at, or restored to, an FCS) unless it had also entered a reservation to the particular species' coverage by AEWA.

Secondly, to the extent that AEWA's provisions are aligned with those of other conservation treaties, one would expect states to be consistent in their reservation entries across treaty regimes. Curiously, however, this is not always the case. For instance, in February 2016, Belarus entered reservations in respect of several of the Action Plan's harvest-related provisions, including the obligation to prohibit non-selective means of taking.[344] What is strange about this reservation is that its scope is considerably broader than the reservation that Belarus entered in respect of the corresponding provision of the Bern Convention.[345] For some methods of harvest,[346] the latter reservation applies in respect of the capture or killing of all game animals. However, for others,[347] it applies only in respect of the killing or capture of specific species, none of which are birds. Still other methods are not covered by the reservation at all. Therefore, even if failing to prohibit these means of taking does not contravene AEWA, it would contravene the Bern Convention.[348]

V. CIRCUMSTANCES IN WHICH WATERBIRD HARVEST IS REQUIRED OR RECOMMENDED

A question arises concerning whether AEWA ever *requires* the harvest of waterbirds. In answering this question, a distinction needs to be drawn between native and non-native species, both of which may pose a threat to AEWA-listed populations. The legal considerations applicable to both situations are briefly considered in this Part of the Article. The remainder is dedicated to a discussion of circumstances in which the AEWA MoP has recommended the harvest of native populations to protect interests other than waterbird conservation. It focuses in particular on the legal acceptability of setting upper population limits under the Agreement and the complications that have arisen due to states' obligations under other legal instruments.

344. *Report of the Depositary*, *supra* note 280, at 1.

345. Council of Europe, *Reservations and Declarations for Treaty No. 104 – Convention on the Conservation of European Wildlife and Natural Habitats*, https://perma.cc/CAZ2-BQ8M (last visited Jan. 4, 2019).

346. The use of tape recorders, semi-automatic weapons with a magazine capable of holding more than two rounds of ammunition, and motor vehicles in motion. *Id*.

347. The use of snares, nets, artificial light sources, devices for illuminating targets, and sighting devices for night shooting comprising an electronic image magnifier or image converter, and hunting from aircraft. *Id*.

348. Note also that Belarus did not enter a reservation in respect of ¶ 2.1.1 of the AEWA Action Plan. Thus, if methods of taking are allowed that result in the capture, killing, or significant disturbance of birds from Column A populations, this will contravene AEWA unless the conditions for exemption are met.

A. CONTROLLING AND ERADICATING POPULATIONS OF NON-NATIVE SPECIES[349]

AEWA's parties are required to take measures to prevent non-native waterbird species "from becoming a potential threat to indigenous biodiversity,"[350] and to ensure that non-native species or hybrids thereof "do not pose a potential hazard to the populations listed in Table 1."[351] Such measures may obviously include the capture and/or killing of non-native species of waterbirds (and, indeed, other non-native taxa[352]). This is recognized by AEWA's legal text,[353] and the Agreement's guidance documents explicitly urge states to implement measures to control and eradicate non-native populations that pose a risk to native waterbirds.[354] For instance, the ruddy duck, *Oxyura jamaicensis*, (which is not native to AEWA's Agreement Area) threatens the endangered white-headed duck, *Oxyura leucocephala*, through hybridization. [355] The MoP has therefore urged parties to establish/continue ruddy duck eradication programs towards this species' complete extermination within the Agreement Area.[356]

It follows that states' domestic legislation should provide a basis for control and eradication measures. If a party deems it appropriate to legislatively protect certain non-native species, it should ensure (for example, through highly responsive licensing/derogation systems) that this does not delay or preclude the implementation of control or eradication strategies should these become necessary.[357] However, parties must also ensure that, when control and eradication measures are implemented, they do not impact non-target species in a manner that contravenes AEWA's other provisions (for example, through significant disturbance or

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349. The discussion in this section is partially based on AEWA, *Draft Guidance on AEWA's Provisions on Non-native Species*, AEWA/MOP7.33 (Sept. 21, 2018) [hereinafter *Guidance on Non-native Species*], https://perma.cc/N9ZV-QH94, which was drafted by the author and adopted through AEWA Res. 7.8, *supra* note 246, ¶ 1(b).

350. AEWA, *supra* note 11, art. III(2)(g).

351. *Id*. annex 3 ¶ 2.5.3. The wording of this provision is somewhat problematic in that, unlike art. III(2)(g) (which refers simply to non-native waterbird species that "have already been introduced"), ¶ 2.5.3 requires parties to take measures in respect of non-native species/hybrids that "have already been introduced into their territory." Ideally, the wording "into their territory" should be deleted so that the provision also applies to non-native species that naturally spread to a country outside their natural range after having been introduced in the territory of another country.

352. *Id*. (not referring exclusively to waterbirds); *see also id*. annex 3 ¶ 4.3.10 (requiring measures "ideally to eliminate or otherwise to mitigate the threat from non-native terrestrial predators to breeding migratory waterbirds on islands and islets").

353. *Id*. annex 3 ¶ 2.5.3 (referring explicitly to taking).

354. Myfryn Owen et al., *Guidelines on Avoidance of Introductions of Non-native Waterbird* Species, AEWA Technical Series No. 12, at 26 (June 2006); AEWA Res 6.4, *supra* note 97, ¶ 10; *see also Guidance on Non-native Species*, *supra* note 349, at 4–5 (discussing the importance of the precautionary principle in this context).

355. *See*, *e.g*., G.C. Smith et al., *A Model of Ruddy Duck* Oxyura Jamaicensis *Eradication for the UK*, 42 J. APPLIED ECOLOGY 546 (2005).

356. AEWA, *Resolution 4.5, Introduced Non-native Waterbird Species in the Agreement Area*, ¶¶ 12–13 (Sept. 15–19, 2008), https://perma.cc/24MB-NNT2.

357. *See further Guidance on Non-Native species*, *supra* note 349, at 5–6.

accidental taking). Compliance with the Agreement would therefore generally require that the harvest of non-native species not go completely unregulated.[358]

B. CONTROLLING NATIVE SPECIES THAT POSE A THREAT TO POPULATIONS OF MIGRATORY WATERBIRDS

Turning to the question of whether AEWA ever requires its parties to control populations of *native* species, this is not explicitly called for in any of the provisions of AEWA's legal text. However, if a native species of waterbird (or, for that matter, any other native species[359]) is negatively impacting an AEWA population's conservation status, then Article II(1) would seemingly require parties to address this—by lethal control measures if necessary.

Of course, a key difference between the control of native and non-native species is the need for parties to consider their international conservation commitments in respect of the former. The protection of one population of native species clearly cannot justify the eradication of another. Where the interests of two native populations are at odds, a careful balancing of their conservation needs should be undertaken. This balancing should operate within the framework of states' international obligations, having regard to such factors as the severity of the threat and the populations' respective conservation statuses. For instance, the kelp gull, *Larus dominicanus vetula*, predates on eggs and chicks of the nine species covered by the AEWA *International Multi-species Action Plan for the Conservation of Benguela Current Upwelling System Coastal Seabirds*.[360] For most of the species, this threat is ranked as "low," but it is ranked as "medium" for the African penguin, *Spheniscus demersus*, and Caspian tern, *Hydroprogne caspia*.[361] The southern African populations of both of these species are listed in Column A of AEWA's Table 1, whereas the relevant population of kelp gull is listed in Column B.[362] Per AEWA's legal text, priority must be given to the Column A populations[363] and the taking of kelp gulls is, in principle, permissible. Indeed, the species action plan calls for the development and implementation of protocols for the control of kelp gulls involved in the predation of seabirds[364] and the culling of kelp gulls occurs in

358. *Id.* at 5 (advising that these measures be conducted "in a manner that is systematic, organized and supervised").

359. *See*, *e.g.*, Marjakangas et al., *supra* note 221, at 39 (calling upon range states to increase the survival rates of adults by, *inter alia*, maintaining and strengthening measures to control huntable native predators within the taiga bean goose's breeding and moulting areas).

360. Hagen & Wanless, *supra* note 210, at 25, 30, 64.

361. *Id.*

362. AEWA, *supra* note 11, annex 3 tbl. 1.

363. *Id.* annex 3 ¶ 7.1 (providing that, when implementing the AEWA Action Plan, "Parties shall, when appropriate, give priority to those populations listed in Column A of Table 1").

364. Hagen & Wanless, *supra* note 210, at 49.

some areas.[365] However, in implementing these measures, parties must ensure that they comply with AEWA's requirements regarding the taking of Column B populations (*supra* Part IV).

C. CONTROLLING WATERBIRD POPULATIONS TO ADDRESS CONFLICTS WITH OTHER INTERESTS

AEWA's overarching objective is the conservation of migratory waterbirds. As has been emphasized throughout this Article, the requirement to maintain or restore populations' FCS is therefore the *Grundnorm* of the Agreement, and other interests cannot be relied upon to justify deviation from this minimum requirement. Provided that this requirement is satisfied, AEWA does, however, recognize the need to balance waterbird protection against other interests. This is reflected in the various exemptions discussed above. In addition, the AEWA Action Plan requires that parties endeavor to "gather information on the damage, in particular to crops and to fisheries, caused by populations listed in Table 1" and that they cooperate with a view to identifying appropriate techniques to minimize, or mitigate the effects of, such damage.[366] It further requires that parties cooperate with a view to developing ISMPs for populations that cause significant damage.[367] These provisions do not *require* that damage be minimized through lethal measures. However, this is clearly one option available to parties, provided that such measures are implemented within the constraints of AEWA's other provisions. Indeed, ISMPs themselves recognize that the deliberate killing of birds plays a role in addressing conflicts and make various recommendations regarding both lethal and non-lethal management measures.[368]

A particularly controversial aspect of AEWA's management planning processes to date has been ISMPs' recommendations that harvest be used to deliberately reduce populations, or limit their growth, below agreed maximum population targets. In other words, ISMPs' endorsement of formal population control at the biogeographical population level. This issue has emerged in the context of rapidly increasing goose abundance in western Europe, with associated increases in conflicts with agriculture, aviation safety, human and animal health,

365. *Id*. at 76 (explaining that measures are in place to control kelp gull numbers at Bird Island and Dyer Island, South Africa, so as to increase the breeding success of African penguins in these areas); *see also* Lorien Pichegru, *Increasing Breeding Success of an Endangered Penguin: Artificial Nests or Culling Predatory Gulls?*, 23 BIRD CONSERVATION INT'L 296 (2013) (discussing the role that culling kelp gulls plays in improving the survival of penguin chicks, as well as the importance of considering alternative solutions).

366. AEWA, *supra* note 11, annex 3 ¶¶ 4.3.2-4.3.3.

367. *Id*. annex 3 ¶ 4.3.4.

368. *E.g*. Jesper Madsen & James H. Williams, *International Species Management Plan for the Svalbard Population of the Pink-footed Goose, Anser Brachyrhynchus*, AEWA Technical Series No. 48, at 27–28 (May 2012).

and biodiversity objectives.[369] Although there is broad agreement on the value of target-setting when endeavoring to recover populations with an unfavorable conservation status, the setting of targets that populations should be kept *below* is an emotive issue.[370] Some stakeholders object to this approach on ethical grounds. Stakeholders' views also differ regarding the circumstances in which such an approach becomes acceptable and its utility in addressing conflicts compared to non-lethal measures (such as habitat management) and localized control measures which, although impacting the overall population, are not aimed at doing so.[371] Further complications arise from the need for management measures to be consistent with other international instruments that take a more protectionist approach than AEWA for some species. These are discussed below. Viewing the matter purely from the perspective of states' legal commitments under AEWA, it is, however, clear that the Agreement allows for populations to be controlled on the basis of targets, as long as the minimum standard of FCS continues to be satisfied. In other words, once FCS has been reached, a variety of human interests (some focused on minimizing conflicts with waterbird populations, others focused on maximizing the benefits associated with these populations) may influence the level to which states allow the population to grow. This approach has been endorsed by the AEWA MoP through its adoption of ISMPs that recommend population management.[372]

Three ISMPs have thus far been adopted by the AEWA MoP. The first was the 2012 *International Species Management Plan for the Svalbard Population of the Pink-footed Goose, Anser brachyrhynchus*.[373] Although this plan's goal focuses first and foremost on "the biological dimension of maintaining the Svalbard Pink-footed Goose in a favourable conservation status," the goal also emphasizes the need to address economic and recreational interests.[374] These interests are consequently reflected in the plan's objectives, which include, *inter alia*, "[keeping] agricultural conflicts to an acceptable level" and "[allowing] for recreational use that does not jeopardize the population."[375] The plan identifies maintaining a population size of "around 60,000, within a range to prevent the population from collapsing or irrupting, respectively" as an essential action for attaining its

369. *See generally* the articles in Volume 46 Issue 2 of AMBIO (2017) (discussing the multiple societal challenges posed by expanding goose populations and reviewing the strengths and weaknesses of existing attempts to integrate these in cohesive goose management programs).

370. James H. Williams & Jesper Madsen, *Stakeholder Perspectives and Values when Setting Waterbird Population Targets: Implications for Flyway Management Planning in a European Context*, 8 PLOS ONE 1 (2013) (investigating the diverse perspectives of international stakeholders regarding the setting of population targets for waterbird species).

371. *Id.*

372. *See also* AEWA TC, *supra* note 120, ¶¶ 5-7.

373. Madsen & Williams, *supra* note 368.

374. *Id.* at 27.

375. *Id.*

objectives.[376] Efforts to reduce the population to within this range are currently being coordinated by the AEWA EGMP.[377] In December 2018, a further two ISMPs were adopted for populations of greylag goose, *Anser anser*,[378] and barnacle goose, *Branta leucopsis*.[379] These plans' central goals are framed similarly to that of the pink-footed goose ISMP, and a variety of ecological, economic, and recreational interests are reflected in their fundamental objectives.[380] Neither identify specific population targets. However, the greylag goose ISMP suggests that there is a need to establish such targets,[381] while the barnacle goose ISMP recognizes that some form of population regulation might be necessary in order to prevent widespread agricultural damage.[382] It is envisaged that more precise management actions (as well as favorable reference populations) will be identified subsequent to the plans' adoption in population-specific "Adaptive Flyway Management Programmes", which will be revised periodically.[383]

The need to ensure states' compliance with their obligations under other international instruments—in particular, the Birds Directive and Bern Convention—has received considerably greater attention in the management planning processes for greylag and barnacle geese than occurred for the pink-footed goose.[384] The prospect of setting maximum population targets for barnacle geese has been especially controversial, since both the Directive and the Convention require states to prohibit, *inter alia*, the deliberate killing of this species.[385] For the states bound by these instruments, harvest may therefore only occur within the framework of their derogation/exception provisions.[386] This results in questions concerning the flexibility of these provisions to accommodate the internationally-coordinated adjustment of population levels and the conditions that must be satisfied for this to occur. In contrast, AEWA itself only requires that taking be prohibited for one of the three barnacle goose populations covered by the ISMP.[387] The Directive, the Convention, and the Agreement all afford greater flexibility

376. *Id.*

377. *See*, *e.g.*, *Report EGMP3*, *supra* note 236, at 15–18.

378. Thibaut Powolny et al., *International Single Species Management Plan for the Greylag Goose (Northwest/Southwest European Population) Anser Anser*, AEWA Technical Series No. 71 (Oct. 2018).

379. Gitte Høj Jensen et al., *International Single Species Management Plan for the Barnacle Goose (Russia/Germany & Netherlands Population, East Greenland/Scotland & Ireland Population, Svalbard/South-west Scotland Population) Branta Leucopsis*, AEWA Technical Series No. 70 (Dec. 2018).

380. *Id.* at 17-18; Powolny et al., *supra* note 378, at 15–17.

381. Powolny et al., *supra* note 378, at 18.

382. Jensen et al., *supra* note 379, at 20.

383. *Id.* at 15-16; Powolny et al., *supra* note 378, at 14–16.

384. Author's personal observation from participating in the management planning processes (although a comparison of the texts of the respective plans also reveals a greater emphasis on other international instruments in the greylag and barnacle goose ISMPs than in the pink-footed goose ISMP).

385. Birds Directive, *supra* note 18, art. 5; Bern Convention, *supra* note 113, art. 6(a), read with app. II.

386. Birds Directive, *supra* note 18, art. 9; Bern Convention, *supra* note 113, art. 9.

387. AEWA, *supra* note 11, annex 3 tbl. 1 (listing the Svalbard/South-west Scotland population of barnacle geese in Column A and the remaining two populations in Columns B and C).

for the harvest of greylag geese.[388] However, the Birds Directive imposes a stricter requirement than AEWA regarding seasonal prohibitions of hunting.[389] A question therefore arises concerning whether the Directive's provisions are sufficiently flexible to allow one Member State to derogate from this requirement with the purpose of preventing serious damage from occurring in another state.

Thus, the AEWA management planning processes for barnacle and greylag geese have both had to grapple with questions concerning the permissible scale of lethal control under the derogation provisions of other legal instruments. A comprehensive analysis of these provisions' limitations exceeds the scope of this Article. Such an analysis is, however, annexed to both ISMPs.[390] In addition, both documents identify types of information that should be compiled in each population's Adaptive Flyway Management Programme to assist states in assessing the need for derogations and demonstrating that the applicable legal conditions have been satisfied.[391] It is further envisaged, *inter alia*, that a toolbox will be created for making determinations regarding the significance of damage linked to goose populations;[392] that measures will be taken to enhance understanding regarding the potential impact of other management options (including agricultural extensification and strengthening of predator populations[393]); and that each Adaptive Flyway Management Programme for barnacle geese will provide protocols for assessing the cumulative impact of derogations.[394] Hence, it appears that, despite the complications that other legal instruments have generated in AEWA's management planning processes, the Agreement's response has the potential to *enhance* compliance with these instruments by enabling more informed, consistent and coordinated decision-making regarding derogations. How successful the

388. Birds Directive, *supra* note 18, annex II; Bern Convention, *supra* note 113, app. III; AEWA, *supra* note 11, annex 3 tbl. 1.

389. Birds Directive, *supra* note 18, art. 7(4).

390. *See* Powolny et al., *supra* note 378, annex 4, at 47–51; Jensen et al., *supra* note 379, annex 4, at 60–66.

391. Powolny et al., *supra* note 378, at 14; Jensen et al., *supra* note 379, at 16 (explaining that this information should include: "i. Characterization of the spatial and temporal extent and trends of damage to agriculture and of risks to air safety as well as to other flora and fauna that can be attributed to the population/[management unit] in question, including predicted future changes in these; ii. Description of the methods applied in the past assessments for each country and recommendations for the development of future guidelines for assessments; iii. Description of the methods applied or tested to prevent damages and to reduce risks, their effectiveness and sufficiency to tackle the problem; iv. Understanding of the link between population level and damages or risk.").

392. Powolny et al., *supra* note 378, at 23; Jensen et al., *supra* note 379, at 26 (the relevance of this action being that derogations motivated by damage-prevention are only available in respect of "serious" damage); *see also* Powolny et al., *supra* note 378, at 8; Jensen et al., *supra* note 379, at 9 (explaining that this action is intended "to improve consistency in states' decision-making regarding derogations and the consistency of their justifications").

393. Powolny et al., *supra* note 378, at 17; Jensen et al., *supra* note 379, at 19 (a consideration of these options is necessary as part of the enquiry into whether other "satisfactory solutions" exist for addressing the conflict).

394. Jensen et al., *supra* note 379, at 16.

Adaptive Flyway Management Programmes will be in doing this remains to be seen. So do the types of management measures that these Programmes will recommend and the response of the CJEU to any complaints arising from EU Member States' implementation of these recommendations.

As regards the legal nature of ISMPs, it appears that neither recommendations articulated in the plans themselves, nor those agreed by the EGM International Working Group concerning their implementation, carry the same weight as recommendations associated with species *action* plans. AEWA does not explicitly require the implementation of ISMPs.[395] Indeed, the EU recently indicated that not all of its Member States intend to implement the greylag goose ISMP.[396] Importantly, however, if an AEWA party's failure to implement an ISMP results in harvest that is unsustainable/jeopardizes its maintenance at an FCS, this would constitute a breach of the Agreement.[397]

CONCLUSION

This Article set out, firstly, to examine the restrictions that AEWA prescribes regarding the harvest of migratory waterbirds and the conditions under which parties may allow such harvest without violating the Agreement. AEWA recognizes harvest as a legitimate use of waterbirds. Rather than being an "anti-hunting" instrument, the Agreement's focus has therefore always been on ensuring that hunting and other forms of harvest occur sustainably.[398] Nevertheless, an investigation of AEWA's legal text, and the manner in which this has evolved over time and been interpreted and applied in practice, reveals a complex regime of harvest provisions, some of which should ideally be supplemented by additional guidance.

All of the Agreement's provisions are directed towards (and need to be interpreted in light of) the objective of ensuring favorable conservation status, which AEWA attempts to achieve primarily at the level of biogeographic populations. While a population's conservation status is determined with reference to several parameters, those concerning population dynamic and historic levels are especially relevant in determining permissible levels of harvest. In implementing the Agreement, parties should also consider the precautionary principle. AEWA's guidance has endorsed a relatively stringent formulation of the principle and, in some contexts, has advised parties that the most prudent response to uncertainty is to prohibit harvest. However, the principle's application does not favor

395. AEWA, *supra* note 11, annex 3 ¶ 4.3.4 (providing merely that parties shall cooperate with a view to *developing* ISMPs).

396. *MoP7 Report*, *supra* note 270, ¶ 130 (quoting the EU's statement that not all Member States agree to the added value of the greylag goose ISMP, and that the plan "will only be implemented by the Member States that find it useful").

397. *See also* Lewis, *supra* note 83, at 35–36 (comparing the legal status of ISAPs and ISMPs).

398. BOERE, *supra* note 15, at 47, 53.

protectionism in *all* instances, and it is consistent with well-implemented adaptive harvest management.

AEWA's most significant restrictions concern populations of waterbirds included in Column A of Table 1. Parties in whose territories these populations occur must, in principle, ensure that their harvest is prohibited by law. The Agreement's approach to both up-listing and down-listing populations is very responsive to changes in their conservation status. However, it does not consider whether harvest is a key driver of a population's decline or whether it is feasible for limited harvest to continue in a sustainable manner and contribute to (or at least not impair the prospects of) the population's recovery. Instead, a measure of flexibility for continued harvest is provided through several exemptions. For some Column A populations, hunting may continue on a sustainable use basis within the framework of an ISAP endeavoring to implement AHM. However, the availability of this exception appears to hinge not only on the existence of an ISAP, but also whether the ISAP allows for hunting, the conditions that the ISAP identifies as having to be met before such hunting can occur, and the decisions of any forum that the ISAP mandates to make decisions regarding quotas, hunting bans, etc. Where the relevant conditions are not satisfied, hunting may only be permitted if authorized under one of the paragraph 2.1.3 exemptions or covered by a reservation. The same applies to all types of harvest other than hunting and to Column A populations that have a higher listing than Category 4 and are not marked with an asterisk. The paragraph 2.1.3 exemptions can ostensibly be relied upon to accommodate a wide variety of motivations for harvest. However, their application is constrained by both ground-specific and general conditions. These will be especially difficult to satisfy for populations in need of recovery and for parties which either lack monitoring and enforcement capacity, or wish to allow forms of harvest that are challenging to oversee and control.

Parties are left with greater discretion to allow the harvest of waterbird populations belonging to Columns B and C of Table 1. However, if these populations geographically and temporally overlap with those included in Column A, it may be necessary to restrict their harvest so as to prevent the capture, killing, or disturbance of birds from Column A populations. Further guidance on aspects of the definition of "taking" would be useful to clarify the degree of restriction required in such instances. The AEWA Action Plan prescribes additional restrictions concerning the harvest of Column B populations—in particular, seasonal restrictions and limitations on harvest methods. Although such requirements are subject to various qualifications and exemptions, the flexibility provided by these is limited. For instance, the livelihood exemption ostensibly creates many possibilities for use (especially in the absence of more detailed guidance on assessing what constitutes "use for livelihood purposes"). However, the availability of this exemption can be curtailed, firstly, by the need to prevent the taking of Column A populations, and, secondly, by the lack of adequate data, oversight and coordination mechanisms to demonstrate that targeted populations will be harvested sustainably.

There are instances in which AEWA *requires* the harvest of particular populations of waterbirds in order to protect other populations. However, such activities must be conducted in a manner that is consistent with the above requirements, and this has implications for the control of both native and non-native birds. There have also been instances in which the Agreement's MoP has recommended waterbird harvest as a means of addressing conflicts with *other* interests. This is, in principle, permitted by the Agreement, although such recommendations are not binding in nature.

Regardless of a population's Table 1 categorization, parties are obliged to ensure that harvest is sustainable and neither results in the population declining below a favorable conservation status, nor impedes the prospects of restoring such status. Reservations entered in respect of particular provisions of the AEWA Action Plan or Table 1 categorizations do *not* relieve parties of the responsibility to comply with these minimum requirements. The only way of completely escaping these requirements in respect of a specific species is therefore to enter a reservation in respect of its coverage by AEWA (that is, its listing in Annex 2 to the Agreement).

In sum, AEWA provides a variety of avenues through which parties can allow the harvest of migratory waterbirds, and its provisions take into consideration the need to accommodate multiple motivations for, and methods of, harvesting. However, many of these provisions are not as permissive as they might appear at first glance. Parties wishing to allow harvest must therefore carefully consider whether they are able to satisfy the requirements of both AEWA's Action Plan and Agreement text, in respect of target and non-target populations alike. They must also, of course, consider their obligations under other legal frameworks that might be more restrictive than AEWA or in respect of which their reservations might not be as far-reaching.

The Article's second objective was to examine the potential for adjusting AEWA's restrictions on harvest in the future. The Article focused specifically on the potential for creating greater flexibility for the harvest of Column A populations—in particular, by expanding the availability of the exception for hunting within the framework of ISAPs. The Article has not taken a position on whether such expansion *should* occur, but merely explored ways in which it could be achieved if the MoP were ultimately to agree with hunting organizations' arguments that this is appropriate. An examination of the requirements for amendments to AEWA's annexes, and the types of amendments that have been adopted in the past, revealed that there are several feasible routes to expanding the exemption's availability. However, the AEWA Action Plan may only permit harvest to the extent that this is consistent with the conservation measures required by AEWA's Agreement text. Any proposed amendments must therefore be carefully scrutinized. If the MoP decides that amendments are appropriate, it should also consider whether they need to be accompanied by additional safeguards—an example being the formulation of criteria for adding asterisks to populations' categorizations.

Finally, the Article sought to identify the ways in which AEWA's approach to harvest regulation has been influenced by the EU Birds Directive and the available guidance on implementing both the Birds and Habitats Directives. The Article illustrated that, although there are various respects in which AEWA is less restrictive than the Birds Directive, portions of the Agreement's Action Plan are modelled on the Directive's language. This is especially evident in the Action Plan's paragraph 2.1.3 exemptions and its list of prohibited methods of taking (although the latter has been qualified by an exemption to accommodate use for livelihood purposes). Moreover, the comprehensive body of guidance that informs EU Member States' implementation of the Birds and Habitats Directives has assisted the interpretation of various AEWA provisions—including those on disturbance, exemptions, and favorable conservation status. Complications have, however, arisen due to misalignment in the populations of species identified as huntable under the Birds Directive and the Agreement respectively. The EU reservations entered to address this situation have excluded large portions of several Column A populations' range from AEWA's requirement that taking be prohibited, and this has been reflected in at least one ISAP's approach to harvest regulation. In this respect, the rigidity of the Directive's annexes has lessened the impact of AEWA's most stringent harvest-related provisions. Conversely, the process of developing AEWA management plans for abundant populations has been complicated (and the plans' contents strongly influenced) by debates over compliance with more stringent restrictions under the Birds Directive. Thus, while it cannot be said that AEWA is "a kind of 'second [EU] Birds Directive,'" as some had feared it might be,[399] EU law has nevertheless influenced AEWA's provisions, interpretation and functioning in several significant ways.

Despite the complexities of their relationship, this Article has highlighted ways in which AEWA's mechanisms may assist states in satisfying their obligations under the Birds Directive and other instruments. In the period since the discovery of Germany's first arrow stork, migratory birds have carried increasingly sophisticated forms of technology to tell us about their journeys. Over time, the international instruments for protecting birds have similarly advanced in sophistication. Much remains to be learned about African-Eurasian migratory waterbirds and their use by humans, and this presents a hurdle to ensuring that the cumulative impact of harvest is sustainable. Nevertheless, AEWA's efforts to coordinate data-collection and harvest decisions at the flyway-level have the potential to gradually improve this situation, thereby advancing not only the Agreement's objectives, but also those of other international instruments concerned with the conservation and sustainable use of these shared species.

399. *Id*. at 35.