

**Effectiveness of Marine Species at Risk Conservation within the UNEP Regional Seas  
Programme: Taking Stock and Charting Future Courses**

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## ABSTRACT

The impending biodiversity crises demands urgent, effective action. The transboundary nature of many marine species at risk makes international law a necessary tool in this endeavour. The United Nations Environment Programme and its Regional Seas Programme consists of 18 individual programmes spanning the globe and bringing together 143 countries in regional collaborations. This research project evaluates potential effectiveness of four programmes within the Regional Seas Programme relative to each other on twelve elements looking at legal and institutional structure, as well as regional implementation. The four case studies cover the North-East Atlantic, Mediterranean, East Africa, and Caribbean regions. These programmes were selected because they are geographically diverse, and they include binding legal obligations to protect marine biodiversity. In order to provide context, the discussion starts with a brief overview of the threats facing marine species, as well as scientific tools used to evaluate extinction risk. It then traces the historical development of international law related to species at risk. This overview shows that international law has a relatively long history of protecting some species, especially marine mammals. In order to position conservation of marine species within international law, a review of fisheries-related instruments, conservation and international trade in wildlife conventions, habitat protection conventions, and instruments addressing sustainable development follows. Research on the effectiveness of international environmental agreements indicates that these instruments positively contribute to the achievement of their objectives, although there is room for improvement. This overview demonstrates that marine species at risk are subject to a complex mosaic of legal frameworks outlining state obligations and commitments. The analysis of the four case studies completes this research project. The results show that all four of the reviewed programmes have the legal and institutional structures needed to protect and recover marine species at risk. However, regional implementation is lagging in particular in areas such as recovery planning and compliance review. Proposed future directions include improved transparency and accountability, integration of social, economic, and environmental concerns, and establishment of regional ocean governance networks.

## LIST OF ABBREVIATIONS USED

ACAP	Agreement on the Conservation of Albatrosses and Petrels
ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area
AIS	Automatic identification system
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas
BBNJ	Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction
CBD	Convention on Biological Diversity
CCAMLR	Convention for the Conservation of Antarctic Marine Living Resources
CEP	Caribbean Environment Project
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COBSEA	Coordinating Body on the Seas of East Asia
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COP	Conference of Parties
EBSA	Ecologically or Biologically Significant Marine Areas
EEZ	Exclusive Economic Zone
EIHA	Environmental Impacts of Human Activities Committee
FAO	Food and Agriculture Organization of the United Nations
FARI	Forum of Academic and Research Institutions in the Western Indian Ocean Region
GFCM	General Fisheries Commission for the Mediterranean

IAC	Inter-American Convention for the Protection and Conservation of Sea Turtles
ICES	International Council for the Exploration of the Sea
ICG	Intersessional Correspondence Group
IMO	International Maritime Organization
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated fishing
MAP	Mediterranean Action Plan
MCSO	Mediterranean Commission on Sustainable Development
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MSSD	Mediterranean Strategy for Sustainable Development
NASCO	North Atlantic Salmon Conservation Organization
NDF	Non-detriment finding
NEAFC	North East Atlantic Fisheries Commission
NGO	Non-governmental organization
NOWPAP	Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region
OSPAR	Convention or Commission for the Protection of the Marine Environment of the North-East Atlantic
OUV	Outstanding Universal Value
PAP/RAC	Priority Actions Programme Regional Activity Centre
RAC	Regional Activity Center
RAN	Regional Activity Network

REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
RFMO	Regional Fisheries Management Organization
ROMPE	Regional Organization for Protection of Marine Environment
RSP	Regional Seas Programme
SAPBIO	Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region
SDG	Sustainable Development Goal
SPA/BD	Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean
SPAMI	Specially Protected Areas of Mediterranean Importance
SPAW	Specially Protected Areas and Wildlife Protocol
SPREP	South Pacific Regional Environment Programme
STAC	Scientific and Technical Advisory Committee
TED	Turtle-Excluder Device
TWAIL	Third World Approaches to International Law
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
UNFSA	United Nations Fish Stocks Agreement
UNGA	United Nations General Assembly
WCR	Wider Caribbean Region
WHC	World Heritage Convention
WIO-C	Consortium for Conservation of Coastal and Marine Ecosystems in the West Indian Ocean
WIO-LME SAPPHIRE	Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms

WIOMSA	Western Indian Ocean Marine Science Association
WIO-MTTF	Western Indian Ocean – Marine Turtle Task Force
WSSA	Agreement on the Conservation of Seals in the Wadden Sea

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## CHAPTER 1

### Introduction

Extinction is forever, and it is also the fate of all living organisms.<sup>1</sup> Reflections evoked by this inevitability and finality demonstrate some of the layers of intellectual, emotional, and moral complexity involved in the field of species conservation. In the last 540 million year history of life on Earth, there have been five mass extinction events where at least half of all terrestrial and marine species disappeared.<sup>2</sup> Today, scientists assert that the planet is experiencing the sixth mass extinction.<sup>3</sup> And unlike the previous events, this one is caused by human activities.<sup>4</sup> Humans have two or three decades at most to take effective action to avoid irreversible damage to the ecosystems and the benefits they provide.<sup>5</sup>

What constitutes effective action is difficult to evaluate because species recovery is an immensely complex task requiring coordinated efforts in a wide range of disciplines such as science, economics and law. But identifying and understanding causal relationships between different variables is needed in order to improve recovery outcomes for species at risk. This project focuses on one of these constituting variables, namely the international environmental law, broadly defined to include fisheries instruments, as it applies to marine species at risk.

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<sup>1</sup> Douglas H Erwin, "Extinction as the loss of evolutionary history" (2008) 105 (suppl.1) PNAS 11520.

<sup>2</sup> "Mass Extinction Events", online: *American Museum of Natural History* <[www.amnh.org/exhibitions/dinosaurs-ancient-fossils/extinction/mass-extinction](http://www.amnh.org/exhibitions/dinosaurs-ancient-fossils/extinction/mass-extinction)>.

<sup>3</sup> Gerardo Ceballos, Paul R. Ehrlich & Rodolfo Dirzo, "Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines" (2017) 14:30 PNAS E6089.

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*



Effectiveness scholars have shown that international law is a factor that plays a role in biodiversity conservation and therefore is worth studying.<sup>6</sup>

Species at risk conservation is further complicated by the fact that the law in this area is fragmented and intersects with many other areas of law. For example, a body of international law dealing with fishing rights has built up over the centuries.<sup>7</sup> Initially these treaties dealt with freedoms to fish without interference; gradually they helped shape concepts central to the contemporary law of the sea and fisheries management.<sup>8</sup> This historic entanglement of conservation concerns with fishing rights has had a profound impact on the protection of marine species. This point will be unpacked later in this chapter. Species at risk conservation also connects with a multitude of human dimensions such as food sovereignty and security, as well as Indigenous rights. These connections will be noted throughout this research project, but it is outside its scope to consider human dimensions in detail. These numerous intersections suggest that the topic of species at risk conservation could and should be of interest to scholars in a variety of fields in order to preserve the world's biodiversity.

This research project is a desk-based, doctrinal study that develops a new framework to assess potential effectiveness of international environmental law instruments in protecting and recovering marine species at risk. The framework consists of twelve elements identified as relevant based on the review of academic literature in the effectiveness and conservation fields. Each element is assessed using the described criteria and assigned a value of high, average, or

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<sup>6</sup> See Chapter 4 for discussion.

<sup>7</sup> Daggett, AP, "The Regulation of Maritime Fisheries by Treaty" (1934) 28:4 Am J Intl L 693.

<sup>8</sup> *Ibid.* One of the earliest conventions dealing with the fishing on the high seas is the Convention for Regulating the Police of the North Sea Fisheries signed in 1882 between six European states. This convention set up fishing vessel registration scheme and established rules to prevent fishing vessels from interfering with each other's gear (see art. 5, 15-23).

low on an ordinal scale. Results of the assessment are then used to detail the current state of affairs, identify best practices, and offer recommendations.

Furthermore, this project adopts a comparative approach where the developed framework is applied to assess potential effectiveness of four individual programmes within the UN Environment Programme's (UNEP) Regional Seas Programme (RSP) relative to each other. The UNEP's RSP was selected for this study because it is a global environmental programme consisting of 18 individual RSPs that bring together 143 countries bordering major bodies of water in regional collaboration.<sup>9</sup> Although the initial focus of the RSP was on marine pollution, it was subsequently expanded to include biodiversity protection, in line with the development of international environmental law as a whole.<sup>10</sup> Given its geographical scope, the UNEP's RSP presents a unique opportunity for a comparative study of how different regions approach species at risk conservation. Other regional bodies, such as Regional Fisheries Management Organizations, also do work that is relevant to the protection and recovery of marine species at risk. However, a detailed assessment of their potential effectiveness is outside the scope of this project.

The four case studies selected for this project are the North-East Atlantic, Mediterranean, East Africa, and Caribbean regions. These specific RSPs were selected because their constituting documents contain binding legal obligations to protect marine biodiversity, and their contracting parties present different combinations of developed and developing states. As will be discussed later in this thesis, developed and developing countries have different priorities with respect to

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<sup>9</sup> "What does working with regional seas matter?" online: *UNEP* <<https://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/why-does-working-regional-seas-matter>>.

<sup>10</sup> Julien Rochette & Raphaël Billé, "Bridging the Gap between Legal and Institutional Developments within Regional Seas Frameworks" (2013) 28:3 *Intl J Marine & Coastal L* 433.

the environmental issues. These differences highlight the importance of studying elements that contribute to the potential effectiveness of species at risk conservation in a broad range of states.

The proceeding discussion unfolds as follows. The remainder of this chapter reviews threats to marine species and scientific tools used to evaluate a species risk of going extinct. These are relevant because as will be seen later in this chapter and in chapter 2, international law protections are usually triggered only after a species passes a set risk of extinction threshold. Understanding conservation status assessment tools will help appreciate the level of danger that a species faces. Then the chapter looks at the history of international law protecting species at risk in general, and marine species in particular. Chapter 2 explains key concepts in international environmental law, broadly defined to include fisheries instruments, and describes global binding obligations and soft law principles that direct states to protect species at risk and their habitats. This part builds on the material discussed in chapter 1. Special attention is given to how species at risk are defined and identified. The chapter will show a complex mosaic of instruments that addresses conservation of marine species at risk from different angles, such as fisheries management, habitat protection, and international trade. Chapter 3 introduces the Regional Seas Programme of UNEP. The individual RSPs are supposed to simplify the complexity of the global commitments described in chapter 2 and adapt their implementation to regional realities. The focus of the discussion is on the history of the Regional Seas Programme, as well as on the diverse institutional and legal structures of the constituent programmes. Before proceeding with the four case studies, chapter 4 reviews academic literature on effectiveness of international environmental conventions and regimes identifying methodological breakthroughs and difficulties. It includes the explanation of the criteria developed for the purposes of measuring potential relative effectiveness of the four reviewed RSPs. Four case studies are found in chapter

5. Each case study reviews an RSP based on the developed criteria and assigns each RSP relative potential effectiveness score on each of the reviewed factors. This collected information is analyzed and summarized in chapter 6. Chapter 6 also highlights identified best practices and offers recommendations to improve RSP's effectiveness in conservation and management of marine species at risk aimed at the RSP, regional, and global levels. The recommendations focus on improving transparency and accountability, as well as integration of social, economic, and environmental concerns, among others. Chapter 6 concludes with future research directions aimed at validating, understanding, and expanding the results of this project.

Given the scale of environmental crises facing humanity, some scholars are arguing that international environmental law in its present form is incapable of delivering results needed to halt the ongoing negative changes.<sup>11</sup> A more holistic, integrated systems approach is being called for in order to manage the complex socio-ecological system within planetary boundaries.<sup>12</sup> These ideas will be further discussed in chapter 6.

The present research may be useful to the development of these alternatives as it describes and evaluates the current state of international environmental law as it applies to marine species at risk. The need for this work is underscored by the fact that oceans, along with their inhabitants, are some of the largest ecosystems on Earth providing a multitude of goods and services across nations. But unlike on land, concern with extinction in the oceans historically has extended only to a very small number of species, mostly marine mammals. This is despite the

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<sup>11</sup> F Biermann *et al*, "Navigating the Anthropocene: Improving Earth System Governance" (2012) 335 *Science* 1306; Kotzé, Louis J & Rakhyun E Kim, "Earth system law: The juridical dimensions of earth system governance" (2019) 1 *Earth System Governance* 100003; Kotzé, Louis J *et al*, "Earth system law: Exploring new frontiers in legal science" (2022) 11 *Earth System Governance* 100126.

<sup>12</sup> *Ibid*.

fact that humans have exploited and, at times overexploited, marine species for millennia.<sup>13</sup> In this interconnected marine space international legal instruments that effectively promote species protection and recovery are essential. Ineffective legal tools could undermine efforts, unfairly distribute conservation burdens, and lead to species extinction.

Before embarking on the review of international law, it would be helpful to mention some relevant scientific material. The next sections review threats to marine species and scientific tools used to evaluate a species risk of going extinct.

### **1.1 Threats and the science of extinction**

Exploitation, mainly fishing, is the top threat to marine species.<sup>14</sup> This is not surprising. Fishing pressure affects not only target species but also incidentally caught animals.<sup>15</sup> A study published in *Nature* used satellite tracking data on sharks and automatic identification system (AIS) data from fishing vessels to show extensive overlaps between sharks and fishers.<sup>16</sup> Seabirds, marine turtles and marine mammals similarly face hotspots of risk of being caught in a variety of fishing gears across the world's oceans.<sup>17</sup> Both large scale industrial, as well as small scale fisheries threaten species at risk through targeted and incidental catch.<sup>18</sup> At the same time,

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<sup>13</sup> Torben C Rick & Jon M. Erlandson, eds. *Human Impacts on Ancient Marine Ecosystems: A Global Perspective* (Berkeley: University of California Press, 2008).

<sup>14</sup> "Living Blue Planet Report: Species, habitats and human well-being" (2015), online: *WWF* <[www.worldwildlife.org/publications/living-blue-planet-report-2015](http://www.worldwildlife.org/publications/living-blue-planet-report-2015)> [Blue Planet]; IPBES, "The global assessment report on biodiversity and ecosystem services. Summary for policymakers" (2019), online (pdf): *IPBES* <[ipbes.net/sites/default/files/2020-02/ipbes\\_global\\_assessment\\_report\\_summary\\_for\\_policymakers\\_en.pdf](http://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf)> [IPBES].

<sup>15</sup> Carrie V Kappel, "Losing pieces of the puzzle: threats to marine, estuarine, and diadromous species" (2005) 3:5 *Frontiers in Ecology & Environment* 275.

<sup>16</sup> Nuno Queiroz *et al*, "Global spatial risk assessment of sharks under the footprint of fisheries" (2019) 572 *Nature* 461.

<sup>17</sup> Lewison, Rebecca L *et al*, "Global patterns of marine mammal, seabird, and sea turtle bycatch reveal taxa-specific and cumulative megafauna hotspots" (2014) 111(14) *PNAS* 5271.

<sup>18</sup> Alifa Bintha Haque, Rachel D Cavanagh & Nathalie Seddon, "Evaluating artisanal fishing of globally threatened sharks and rays in the Bay of Bengal, Bangladesh" (2021) 16:9 *PLoS ONE* e0256146; Leslie A Roberson, Reg A

seafood is the largest traded food commodity in the world, providing livelihoods to billions of people world-wide; while more than three billion people rely on wild-caught and farmed seafood as a significant source of animal protein.<sup>19</sup>

Habitat loss and degradation due to coastal development and land-based sources of pollution is another significant threat.<sup>20</sup> Densities of human populations are nearly three times higher in coastal zones than global average.<sup>21</sup> The tourism industry, an important player in the economies of small-island developing states,<sup>22</sup> also destroys marine habitat through mangrove removal for hotel construction, improper sewage and runoff treatment, as well as overuse of coral reefs for activities like diving.<sup>23</sup> In the open ocean, bottom trawling, an industrial activity, is very destructive to habitat-forming species such as corals.<sup>24</sup>

Other threats to marine species at risk include invasive species and climate change.<sup>25</sup>

Invasive species are easily transported in ballast water and have been blamed for collapses of

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Watson & Carissa J Klein, “Over 90 endangered fish and invertebrates are caught in industrial fisheries” (2020) 11:4764 *Nature Communications* 1; Paolo Casale, “Sea turtle by-catch in the Mediterranean” (2011) 12 *Fish & Fisheries* 299; Rebecca L Lewison *et al*, “Understanding impacts of fisheries bycatch on marine megafauna,” (2004) 19:1 *TRENDS in Ecology & Evolution* 598.

<sup>19</sup>“Overview”, online: *WWF* <[www.worldwildlife.org/industries/sustainable-seafood#:~:text=More%20than%203%20billion%20people,to%20billions%20of%20people%20worldwide](http://www.worldwildlife.org/industries/sustainable-seafood#:~:text=More%20than%203%20billion%20people,to%20billions%20of%20people%20worldwide;)>; “A Healthy Ocean Depends on Sustainably Managed Fisheries” (25 January 2021), online: *The Nature Conservancy* <[www.nature.org/en-us/what-we-do/our-priorities/provide-food-and-water-sustainably/food-and-water-stories/global-fisheries/](http://www.nature.org/en-us/what-we-do/our-priorities/provide-food-and-water-sustainably/food-and-water-stories/global-fisheries/)>.

<sup>20</sup> “Coastal and marine biodiversity loss”, online: *International Atomic Energy Agency* <[www.iaea.org/topics/marine](http://www.iaea.org/topics/marine)>.

<sup>21</sup> Christopher Small & Robert J. Nicholls, “A Global Analysis of Human Settlement in Coastal Zones” (2003) 19:3 *J of Coastal Research* 584.

<sup>22</sup> Coke-Hamilton, Pamela, “Impact of COVID-19 on tourism in small island developing states” (2020), online: *UN Conference on Trade and Development* <[unctad.org/news/impact-covid-19-tourism-small-island-developing-states](http://unctad.org/news/impact-covid-19-tourism-small-island-developing-states)>.

<sup>23</sup> “Tourism in the Green Economy – Background Report” (2012), online (pdf): *UN World Tourism Organization eLibrary* <[www.e-unwto.org/doi/pdf/10.18111/9789284414529](http://www.e-unwto.org/doi/pdf/10.18111/9789284414529)>.

<sup>24</sup> Antonio Pusceddu *et al*, “Chronic and intensive bottom trawling impairs deep-sea biodiversity and ecosystem functioning” (2014) 111:24 *PNAS* 8861; “FAQs: Bottom Trawling”, online: *Oceana* <[europe.oceana.org/en/faqs-bottom-trawling](http://europe.oceana.org/en/faqs-bottom-trawling)>.

<sup>25</sup> Paul Ekins, Joyeeta Gupta & Pierre Boileau, eds. *Global Environment Outlook GEO-6 Healthy Planet, Healthy People* (New York, Cambridge University Press, 2019); IPBES, *supra* note 14.

local fisheries in the Black Sea and San Francisco Bay.<sup>26</sup> Threats posed by climate change, and also ocean acidification, are not fully understood but their impacts on species are going to be substantial.<sup>27</sup> For example, all species of sea turtles have temperature-dependent sex determination.<sup>28</sup> Increased temperatures could lead to unsustainably skewed sex ratios.<sup>29</sup> Thecosomatous pteropods are key part of the Arctic food web.<sup>30</sup> Their thin aragonite shells are very sensitive to increases in acidification.<sup>31</sup> Increasing water temperatures and acidity are also changing habitat suitability across the oceans with consequences at the species and ecosystem levels.<sup>32</sup>

Extinction is the final outcome of a species' population decline and in recent human memory few marine species have gone extinct.<sup>33</sup> Steller's sea cow and the Caribbean monk seal were over-exploited in the 18th<sup>34</sup> and late 19th<sup>35</sup> centuries respectively. Four species of gastropods and five species of seabirds have also disappeared.<sup>36</sup>

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<sup>26</sup> Nicholas Bax *et al*, "Marine invasive alien species: a threat to global biodiversity" (2003) 27:4 *Marine Pol'y* 313.

<sup>27</sup> Cecilia Engler, David VanderZwaag & Kaja Fennel, "Ocean Acidification Post-Paris: Gauging Law and Policy Responses in Light of Evolving Scientific Knowledge" (2019), 33:1 *Ocean YB* 207.

<sup>28</sup> "What causes a sea turtle to be born male or female?" (7 January, 2020), online: *NOAA National Ocean Service* <[oceanservice.noaa.gov/facts/temperature-dependent.html](https://oceanservice.noaa.gov/facts/temperature-dependent.html)>.

<sup>29</sup> *Ibid.*

<sup>30</sup> Jennifer Mathers, "Marine Invertebrates: Communities at Risk" (2013) 2 *Biology* 832.

<sup>31</sup> *Ibid.*

<sup>32</sup> Kristin M Kleisner *et al*, "Marine species distribution shifts on the U.S. Northeast Continental Shelf under continued ocean warming" (2017) 153 *Progress in Oceanography* 24; Michael T Burrows *et al*, "The Pace of Shifting Climate in Marine and Terrestrial Ecosystems" (2011) 334 *Science* 652; Engler, VanderZwaag & Fennel, *supra* note 27.

<sup>33</sup> Douglas J McCauley *et al*, "Marine defaunation: Animal loss in the global ocean" (2015) 347:6219 *Science* 2; Howard Powles *et al*, "Assessing and protecting endangered marine species" (2000) 57:3 *ICES J Marine Sci* 669.

<sup>34</sup> Josh Davis, "Steller's sea cow: the first historical extinction of a marine mammal at human hand", online: *Natural History Museum* <[www.nhm.ac.uk/discover/stellers-sea-cow-first-historical-extinction-of-marine-mammal-at-human-hands.html](http://www.nhm.ac.uk/discover/stellers-sea-cow-first-historical-extinction-of-marine-mammal-at-human-hands.html)>.

<sup>35</sup> Baker, Kyle, "Caribbean Monk Seal: Gone but Not Forgotten" (28 August 2012), online: *US Fish and Wildlife Service* <[www.fws.gov/endangered/news/bulletin-summer2009/caribbean-monk-seal.html](http://www.fws.gov/endangered/news/bulletin-summer2009/caribbean-monk-seal.html)>.

<sup>36</sup> Kappel, *supra* note 15; Powles *et al*, *supra* note 33;

It is possible that the low numbers underestimate instances of extinctions in the oceans.<sup>37</sup> Ninety-one percent of marine species are believed to be undescribed;<sup>38</sup> and there is a 53- year gap between the last sighting of a species and the reported date of extinction whether at global, regional or local level.<sup>39</sup> Between 1970 and 2010 populations of fishes caught in subsistence and commercial fisheries fell by 50 percent globally.<sup>40</sup> This number is likely higher for commercially or culturally valuable species.<sup>41</sup> Sea cucumbers have seen regional declines of over 90 percent,<sup>42</sup> while a quarter of all chondrichthyan fishes—sharks, rays, and chimaeras are threatened with extinction.<sup>43</sup> Although some marine species populations are showing signs of recovery,<sup>44</sup> globally, the rate of species declines remains unabated.<sup>45</sup>

Extinction is not limited to a physical disappearance of a species. It also leads to a loss of evolutionary history<sup>46</sup> and human culture.<sup>47</sup> Take for example the extinction of the Steller’s sea cow. It lived in sub-Arctic waters of the Pacific Ocean, while its remaining relatives, dugongs and manatees, inhabit warm tropical waters.<sup>48</sup> Human knowledge will be forever limited to the observations made in 1741 by Georg Wilhelm Steller, a zoologist, and what can be gleaned from

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<sup>37</sup> Powles *et al*, *ibid*.

<sup>38</sup> Ekins, Gupta & Boileau, *supra* note 25.

<sup>39</sup> Nicholas K Dulvy, Yvonne Sadovy & John D Reynolds, “Extinction vulnerability in marine populations” (2003) 4:1 *Fish & Fisheries* 25.

<sup>40</sup> Blue Planet, *supra* note 14.

<sup>41</sup> *Ibid*.

<sup>42</sup> *Ibid*.

<sup>43</sup> Nicholas K Dulvy *et al*, “Extinction risk and conservation of the world’s sharks and rays” (2014) 3:e00590 *eLife* 1; Dulvy, Sadovy & Reynolds, *supra* note 39.

<sup>44</sup> Abel Valdivia, Shaye Wolf & Kieran Suckling, “Marine mammals and sea turtles listed under the U.S. Endangered Species Act are recovering” (2019) 14:1 *Plos One* e0210164.

<sup>45</sup> Ekins, Gupta & Boileau, *supra* note 25.

<sup>46</sup> Erwin, *supra* note 1.

<sup>47</sup> David A Close, Martin S Fitzpatrick & Hiram W Li, “The Ecological and Cultural Importance of a Species at Risk of Extinction, Pacific Lamprey” (2002) 27:7 *Fisheries Management* 19.

<sup>48</sup> Josh Davis, “Steller’s sea cow: the first historical extinction of a marine mammal at human hand”, online: *Natural History Museum* < [www.nhm.ac.uk/discover/stellers-sea-cow-first-historical-extinction-of-marine-mammal-at-human-hands.html](http://www.nhm.ac.uk/discover/stellers-sea-cow-first-historical-extinction-of-marine-mammal-at-human-hands.html)>.



the remaining bones.<sup>49</sup> There are records of Aleuts describing the existence and the use of animals that were most likely Steller's sea cow.<sup>50</sup> With the animals gone, the culture around them likely disappeared as well.

Other outcomes are possible before a species completely disappears such as ecological extinction. This occurs when a species is at such low level of abundance that it is no longer able to perform its ecological role.<sup>51</sup> This happened to the Caribbean population of green sea turtle<sup>52</sup> with the species declining by more than 97 per cent since precolonial times.<sup>53</sup> Regional and local extinctions or extirpations are also possible.<sup>54</sup> In these cases a species ceases to exist in a portion of its range. For example, smalltooth sawfish is now found in less than 20 percent of its former range.<sup>55</sup> For commercially exploited species, commercial extinction may come before biological extinction.<sup>56</sup> Commercially extinct species are no longer economically feasible to harvest.<sup>57</sup> However, this is not the case for all species. Some marine species have increased in value as their numbers decreased.<sup>58</sup> A bluefin tuna has been sold for USD \$1.8 million<sup>59</sup> as the stocks of

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<sup>49</sup> *Ibid.*

<sup>50</sup> Daryl P Domning, James Thomason & Debra G Corbett, "Steller's Sea Cow in the Aleutian Islands" (2007) 23:4 Marine Mammal Sci 976.

<sup>51</sup> McCauley *et al*, *supra* note 33.

<sup>52</sup> Wilson, EG, KL Miller, D Alison & M. Magliocca "Why Healthy Oceans Need Sea Turtles: The Importance of Sea Turtles to Marine Ecosystems" online (pdf): *Oceana* <[oceana.org/sites/default/files/reports/Why\\_Healthy\\_Oceans\\_Need\\_Sea\\_Turtles.pdf](http://oceana.org/sites/default/files/reports/Why_Healthy_Oceans_Need_Sea_Turtles.pdf)> citing R Bjorndal, K A & Jackson, JBC 2003. Roles of sea turtles in marine ecosystems: Reconstructing the past. In Lutz, PL, Musick, JA & Wyneken, J (eds) The Biology of Sea Turtles Volume II. CRC Press, Boca Raton, Florida (USA) pp. 259-273.

<sup>53</sup> Eckert, Karen *et al.*, "Sea Turtles of the Caribbean" (17 March 2020), online: *State of the World's Sea Turtles* <<https://www.seaturtlestatus.org/articles/2020/2/25/sea-turtles-of-the-caribbean>>.

<sup>54</sup> McCauley *et al*, *supra* note 33.

<sup>55</sup> Dulvy, Nicholas K *et al*, "Ghosts of the coast: global extinction risk and conservation of sawfishes" 26:1 Aquatic Conservation 134.

<sup>56</sup> McCauley *et al*, *supra* note 33.

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*

<sup>59</sup> "Tuna sells for 1.8 million in first Tokyo auction of 2020, second highest ever" (5 January 2020), online: *Reuters* <[www.reuters.com/article/us-new-year-japan-tuna-auction-idUSKBN1Z4060](http://www.reuters.com/article/us-new-year-japan-tuna-auction-idUSKBN1Z4060)>.

the three bluefin tuna species remain depleted.<sup>60</sup> At each step along the path towards extinction, changes are happening to the interactions among and within species that reverberate across ecosystems.<sup>61</sup>

It is difficult to assess accurately extinction risk for a marine species.<sup>62</sup> Resiliency depends on a combination of a wide variety of internal characteristics and external factors.<sup>63</sup> It is known that large body size and late maturity are the best predictors of a species vulnerability to fishing.<sup>64</sup> Similarly, marine species that interact with land at some point in their life history are more likely to be threatened than their exclusively aquatic counterparts.<sup>65</sup> There is a perception that marine fishes have greater resilience than other species because of their high fecundity and large geographical ranges, but this is not always true as demonstrated by the disappearance of some inshore sub-populations.<sup>66</sup>

The International Union for Conservation of Nature (IUCN) has developed the most commonly used categories and criteria for assessing a species' risk of extinction,<sup>67</sup> with the results compiled in the IUCN Red List of Threatened Species. According to IUCN guidelines, a species can fall into one of the following categories based on its conservation status: Extinct, Extinct in the Wild, Critically Endangered, Endangered, Vulnerable, Near Threatened, Least

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<sup>60</sup> According to the International Union for Conservation of Nature (IUCN), Atlantic bluefin (*Thunnus thynnus*) is classified as Endangered; Pacific bluefin (*Thunnus orientalis*) is Vulnerable; and Southern bluefin is (*Thunnus maccoyii*) is Critically Endangered.

<sup>61</sup> Tiffany M Knight *et al*, "Trophic cascades across ecosystems" (2005) 437:7060 Nature 880.

<sup>62</sup> Powles *et al*, *supra* note 33.

<sup>63</sup> *Ibid*.

<sup>64</sup> John D Reynolds *et al*, "Biology of extinction risk in marine fishes" (2005) 272 Proceedings of the Royal Society of Biology 2337.

<sup>65</sup> McCauley *et al*, *supra* note 33.

<sup>66</sup> Reynolds *et al*, *supra* note 64.

<sup>67</sup> IUCN categories and criteria operate at the level of taxa, not species. For the purposes of this dissertation, this distinction is not significant.

Concern, Data Deficient, and Not Evaluated.<sup>68</sup> Categories of Critically Endangered, Endangered, and Vulnerable are grouped together as the “Threatened categories.”<sup>69</sup> These species face an extremely high, a very high, and a high risk of extinction in the wild, respectively.<sup>70</sup>

Conservation status is assessed based on a quantitative criteria aimed at providing an objective justification for the assigned category. The result needs to be precautionary and credible.<sup>71</sup> In order to fall into one of the Threatened categories, one of the following has to be demonstrated: (1) Reduction of population size by the specified percentage over the last 10 years or three generations, whichever is longer; (2) restricted or fragmented geographic range occupied by the species; (3) population size estimated to number fewer than the specified number of mature individuals; or (4) quantitative analysis predicts specified probability of extinction in the wild within 10 years or three generations, whichever is longer.<sup>72</sup> The specified numbers vary between the categories, with Critically Endangered having the highest thresholds. When data are insufficient to conduct an assessment, methods of estimation, inference and projection are encouraged.<sup>73</sup>

The quantitative framework developed by IUCN facilitates risk assessment as well as allows comparison of extinction risk across a broad range of species. Nevertheless, validity of the latest<sup>74</sup> Red List assessments has been criticized on the following grounds: (1) the impossibility of the criteria to accurately measure the risk of extinction across all species given

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<sup>68</sup> IUCN Species Survival Commission, *IUCN Red List Categories and Criteria: Version 3.1*. 2nd ed (Gland: IUCN, 2012).

<sup>69</sup> *Ibid.*

<sup>70</sup> *Ibid.*

<sup>71</sup> *Ibid.*

<sup>72</sup> *Ibid.*

<sup>73</sup> *Ibid.*

<sup>74</sup> The previous version of the IUCN assessment criteria has been highly controversial. For an overview of the discourse see Campbell, Lisa M, “Seeing Red: Inside the Science and Politics of the IUCN Red List” (2012) 10:4 *Conservation & Society* 367.

the significant differences in life histories and geographical ranges; and (2) the use of expert opinion in the assessment process.<sup>75</sup> Experts have rebutted these concerns by pointing out that the criteria were developed through broad consultations with species specialists and by focusing on the common principles of population dynamics and risk factors of extinction.<sup>76</sup> Furthermore, they argue that the quantitative nature of the criteria forces reliance on expert opinion to be transparent and rebuttable.<sup>77</sup>

## 1.2 The history of international law addressing species risk of extinction

International law's concern with extinction began on land with the 1900 Convention.<sup>78</sup> It never came into force,<sup>79</sup> but its format has served as a template for subsequent conservation conventions. For example, it included five schedules based on different levels of protection. The first Schedule listed twelve terrestrial species that the parties desired to protect by prohibiting all hunting either because the species were “useful” or because they were threatened with extinction.<sup>80</sup> Species on the subsequent Schedules were protected by the parties either through a prohibition on hunting for juveniles and females with young, or by allowing hunting “in limited numbers.”<sup>81</sup> Limited hunting applied to two coastal species – dugongs and manatees.<sup>82</sup> The idea

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<sup>75</sup> Ben Collen *et al*, “Clarifying misconceptions of extinction risk assessment with the IUCN Red List” (2016) 12 *Biology Letters* 1.

<sup>76</sup> *Ibid.*

<sup>77</sup> *Ibid.*

<sup>78</sup> *Convention For The Preservation Of Wild Animals, Birds, And Fish In Africa*, 19 May 1900, 94 BFSP 75 (not entered into force) [1900 Convention]; Peter H Sand, “Endangered Species, International Protection” (2017), online: *Oxford Public International Law* <opil.ouplaw.com/view/10.1093/law:epil/9780199231690/law-9780199231690-e1574>.

<sup>79</sup> Sand, *ibid.*

<sup>80</sup> 1900 Convention, art 2(1).

<sup>81</sup> 1900 Convention, art 2(2) – 2(4).

<sup>82</sup> 1900 Convention, Schedule 4.

of listing “harmful” species “of which it is desirable to reduce the number within sufficient limits”<sup>83</sup> did not catch on and the 1900 Convention remains the only example of its use.

The negotiations of the 1900 Convention also began an uneasy relationship between developing countries and international wildlife protection law.<sup>84</sup> In particular, Mickelson argues that it disproportionately placed the burden of conservation on local populations who contributed little to the problem of overexploitation. The subsequent 1933 Convention relative to the Preservation of Fauna and Flora in their Natural State (the 1933 Convention) embodied the same philosophy described by Ogundere as “the preservation of fauna and flora in Africa against the excesses of European hunters and farmers who had introduced the use of firearms and ploughs, particularly into the savannah areas of East and Central Africa.”<sup>85</sup> The 1933 Convention, directed for the most part towards the protection of wild species in Africa,<sup>86</sup> came into force in 1936 and had nine, mostly European, parties.<sup>87</sup>

The 1933 Convention aimed to achieve its conservation objectives by encouraging the establishment of protected areas, including national parks and strict nature reserves where hunting and other potentially destructive activities were prohibited.<sup>88</sup> Buffer zones around these protected areas were envisioned where regulated hunting was allowed.<sup>89</sup> Measures such as

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<sup>83</sup> 1900 Convention, Schedule 5.

<sup>84</sup> Karin Mickelson, “South, North, International Environmental Law, and International Environmental Lawyers” (2000) 11 YB Intl Env L 52.

<sup>85</sup> JD Ogundere, “The Development of International Environmental Law and Policy in Africa” (1972) 12:2 Natural Resources J 255

<sup>86</sup> *1933 Convention relative to the Preservation of Fauna and Flora in their Natural State*, 8 November 1933, 172 LNTS 241 (entered into force 14 January 1936) [1933 Convention], art 1(3). Pursuant to art. 13, parties could expand the geographical application of the Convention to their non-African territories. As a result, the Convention became applicable to colonial territories on the Indian subcontinent and Indonesia (Sand, “Endangered Species, International Protection”, *supra* note 78).

<sup>87</sup> The parties were South Africa, Belgium, U.K., Egypt, Spain, France, Italy, Portugal and Anglo-Egyptian Sudan.

<sup>88</sup> 1933 Convention, art 2 and 3.

<sup>89</sup> 1933 Convention, art 4(2).

regulation of trophy exports and prohibited methods of capturing or killing animals were also detailed.<sup>90</sup>

The 1933 Convention contained an annex listing species the protection of which was “of special urgency and importance.”<sup>91</sup> The annex was divided into two lists: Class A and Class B. Class A species were to be protected “as completely as possible” and hunting of these species was allowed only for scientific or management purposes.<sup>92</sup> Class B species could be hunted only with a special permit that set out conditions such as the number of specimens, time and area.<sup>93</sup> The list of protected species was restricted to land animals and one plant.<sup>94</sup> These provisions did not apply to the recognized hunting rights of Indigenous peoples.<sup>95</sup> There were also carved out provisions for hunting in a time of famine, protection of property and human life, as well as for the purposes of public order.<sup>96</sup> The contracting parties agreed to cooperate in carrying out the purposes of the Convention and to “prevent extinction of fauna and flora.”<sup>97</sup> The 1933 Convention was eventually superseded by the 1986 African Convention on the Conservation of Nature and Natural Resources.<sup>98</sup>

Another treaty, still in effect, relevant to this discussion is the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere (WHC). Coming into force in 1942, the WHC aspired to “protect and reserve in their natural habitats representatives of all species and genera of their native flora and fauna, including migratory birds, in sufficient

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<sup>90</sup> 1933 Convention, art 9 and 10.

<sup>91</sup> 1933 Convention, art 8(1).

<sup>92</sup> 1933 Convention, art 8(1).

<sup>93</sup> *Ibid.*

<sup>94</sup> Michael Bowman, Peter Davies & Catherine Redgewell, *Lyster's International Wildlife Law*, 2nd ed (Cambridge: Cambridge University Press, 2010) in chapter 9.

<sup>95</sup> 1933 Convention, art 8(2).

<sup>96</sup> 1933 Convention, art 8(5).

<sup>97</sup> 1933 Convention, art 12(2).

<sup>98</sup> Bowman, Davies & Redgewell, *supra* note 94.

numbers and over areas extensive enough to assure them from becoming extinct through any agency within man's control.”<sup>99</sup> In addition to the establishment of protected areas, protection of migratory birds and regulation of wildlife trade, the Convention encourages its 19 parties<sup>100</sup> to preserve all flora and fauna within their territories, while adopting special measures for species listed in the Annex.<sup>101</sup> The listed species are to be protected “as completely as possible” with taking allowed by a permit granted only for scientific or management purposes.<sup>102</sup> Confusion surrounds the WHC Annex as there are no provisions detailing criteria for species inclusion.<sup>103</sup> Instead, individual parties submitted independent lists of various length and overlapping species that were already protected domestically.<sup>104</sup> Available copies of the Annex are disorganized, making it difficult to tell which marine animals, other than some marine mammals and sea turtles, are covered.

### **1.3 The history of international law addressing protection of marine species at risk**

International law has over a century of experience protecting species at risk, including some marine species, with varying degrees of success. The first treaty specifically aimed at preventing extinction of a marine species was the 1911 Convention between the United States and Other Powers Providing for the Preservation and Protection of Fur Seals. This agreement between the U.S., U.K. (on behalf of Canada), Russia, and Japan established a protected zone in

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<sup>99</sup> *Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere*, 12 October 1940, 161 UNTS 193 (entered into force 1 May 1942) [Western Hemisphere Convention] at preamble.

<sup>100</sup> The parties are Argentina, Brazil, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, U.S., Uruguay, and Venezuela. Bolivia, Colombia and Cuba are signatories.

<sup>101</sup> Western Hemisphere Convention, art 5 and 8.

<sup>102</sup> Western Hemisphere Convention, art 8.

<sup>103</sup> Bowman, Davies & Redgewell, *supra* note 94 in chapter 8.

<sup>104</sup> *Ibid.*

the North Pacific where pelagic sealing was prohibited.<sup>105</sup> Indigenous peoples taking seals on the high seas using traditional methods were exempted from the prohibition.<sup>106</sup> Japan and the U.K., both pelagic sealers, agreed to the termination of this activity in return for payments from Russia and the U.S., both countries with rookeries within the protected zone.<sup>107</sup> The 1911 Convention was terminated in 1941;<sup>108</sup> by this time, the seal population has returned to the pre-hunt levels.<sup>109</sup>

In 1931 large cetaceans secured their first set of protective measures through the Convention for the Regulation of Whaling.<sup>110</sup> This agreement prohibited the killing of right whales, southern pigmy whales as well as calves, juveniles, and females with calves.<sup>111</sup> The Convention also encouraged full utilization of whale carcasses, stipulated licensing requirements, and listed biological information to be collected by whalers.<sup>112</sup> Whale conservation, as well as concerns for the sustainability of the whaling industry were the motivating factors for the conclusion of this agreement.<sup>113</sup> The 1931 Convention was soon replaced by the 1937 Agreement for the Regulation of Whaling, which was also ineffective and subsequently replaced.<sup>114</sup>

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<sup>105</sup> *Convention between Great Britain, Japan, Russia and the United States respecting Preservation and Protection of Fur Seals in the North Pacific Ocean*, 7 July 1911, 214 CTS 80 (entered into force 12 December 1911) [Fur Seals Convention], art 1. Indigenous peoples taking seals on the high seas using traditional methods were exempted from the prohibition (see art 4).

<sup>106</sup> Fur Seals Convention, art 4.

<sup>107</sup> Fur Seals Convention, art 10 to 12; Thomas A Bailey, “Pacific Sealing Convention of 1911” (1935) 4:1 Pacific Historical Rev 1.

<sup>108</sup> Fur Seals Convention, headnote.

<sup>109</sup> Daniel Bodansky, *The Art and Craft of International Environmental Law* (Cambridge: Harvard University Press, 2010).

<sup>110</sup> *Convention for the Regulation of Whaling*, 24 September 1931, 155 LNTS 349 (entered into force 6 January 1935).

<sup>111</sup> *Ibid.*, art 4 and 5.

<sup>112</sup> *Ibid.*, art 6, 8 and 10.

<sup>113</sup> Kurpatrick Dorsey, *Whales and Nations: Environmental Diplomacy on the High Seas* (Seattle: University of Washington Press, 2013) in chapter 1.

<sup>114</sup> Malgosia Fitzmaurice, “International Convention for the Regulation of Whaling”, online: *Audiovisual Library of International Law* <legal.un.org/avl/ha/icrw/icrw.html>.



In 1946, the International Convention for the Regulation of Whaling was signed, establishing the International Whaling Commission.<sup>115</sup> The wording of the Convention makes it clear that the original intent of the agreement was sustainable whaling. The preamble refers to the threat posed to the whale stocks by over-exploitation and the need for “a system of international regulation of the whale fisheries to ensure proper and effective conservation and development of whale stocks.” The Convention includes a Schedule that may be amended by the Commission from time to time.<sup>116</sup> This Schedule includes protected species, closed seasons and areas, catch limits, and fishing methods.<sup>117</sup> Changes to the Schedule are to be made on the basis of scientific information, while also taking into account the interests of the consumers and the whaling industry, among other considerations.<sup>118</sup> Since 1982, commercial quota for all species has been set at zero, while limited take by Indigenous peoples is allowed.<sup>119</sup> The Convention contains an exemption to the limits set in the Schedule. Under article 8, a contracting party may issue a licence to take whales for the purposes of scientific research in the numbers and under conditions determined by the party. This provision has proven to be controversial and led to a dispute between Australia and Japan before the International Court of Justice.<sup>120</sup>

In 1973, five polar bear range states, Canada, Denmark, Norway, Russia and the U.S., signed the Agreement on the Conservation of Polar Bears.<sup>121</sup> The 1973 Agreement restricted the

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<sup>115</sup> *International Convention for the Regulation of Whaling*, 2 December 1946, 161 UNTS 72 (entered into force 10 November 1948) [IWC]; “IWC Key Documents”, online: *IWC* <[iwc.int/convention](http://iwc.int/convention)>.

<sup>116</sup> IWC, art 5(1).

<sup>117</sup> IWC, art. 5(1).

<sup>118</sup> IWC, art 5(2).

<sup>119</sup> Bowman, Davies & Redgewell, *supra* note 94 in chapter 6.

<sup>120</sup> Marc Mangel, “Whales, science and scientific whaling in the International Court of Justice” (2016) 113:51 PNAS 14523.

<sup>121</sup> *Agreement on the Conservation of Polar Bears*, 15 November 1973, 2898 UNTS 243 (entered into force 26 May 1976) [Polar Bear Agreement].

hunting and capture of polar bears to the scientific, conservation, and management purposes.<sup>122</sup> Hunting of polar bears by, traditional methods was allowed to continue.<sup>123</sup> The Parties agreed to prohibit domestic trade, as well as import and export, of polar bear products obtained contrary to the Agreement.<sup>124</sup> They also agreed to cooperate in scientific research, consult each other on management measures, and exchange information.<sup>125</sup> With respect to the habitat, the 1973 Agreement directs the Parties to protect the species' ecosystem with special attention given to denning and feeding areas, as well as migration routes.<sup>126</sup>

In the 1990s, three binding agreements dedicated to marine mammals in European waters were negotiated under the umbrella of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). These are the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS); Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS); and Agreement on the Conservation of Seals in the Wadden Sea (WSSA). All three have favourable conservation status of the species under their purview as the objective, although ASCOBANS does not define the term. All three prohibit deliberate killing of the animals and provide for habitat protection measures. ACCOBAMS and WSSA also prohibit harassment, subject to narrow exemptions for scientific and conservation purposes. ASCOBANS requires prompt release of the small cetaceans if incidentally captured. Four additional non-

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<sup>122</sup> Polar Bear Agreement, art 3(1)(a) – (c).

<sup>123</sup> Polar Bear Agreement, art 3(1)(d) – (e).

<sup>124</sup> Polar Bear Agreement, art 5.

<sup>125</sup> Polar Bear Agreement, art 7.

<sup>126</sup> Polar Bear Agreement, art. 2.

binding Memorandums of Understanding (MOUs), also negotiated under the auspice of CMS, are dedicated to marine mammals.<sup>127</sup>

The special status of marine mammals under international law has been codified in the United Nations Convention on the Law of the Sea (UNCLOS).<sup>128</sup> UNCLOS specifically allows coastal states or international organizations “to prohibit, limit or regulate the exploitation of marine mammals more strictly” than otherwise allowed under the Convention.<sup>129</sup>

Besides marine mammals, albatrosses and petrels and sea turtles in the western hemisphere are the only other marine species, not subject to commercial exploitation, that are covered by dedicated binding agreements. To note, some species of elasmobranchs and populations of sea turtles are subject to non-binding CMS Memorandums of Understanding.<sup>130</sup> The Agreement on the Conservation of Albatrosses and Petrels (ACAP), concluded under the auspice of CMS in 2001, has thirteen parties.<sup>131</sup> Its objective is to achieve a “favourable conservation status” for the birds based on population dynamics, ranges, habitat, and historic levels of distribution and abundance.<sup>132</sup> The parties agreed to prohibit deliberate killing and

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<sup>127</sup> These are: Memorandum of Understanding on the Conservation and Management of Dugongs (*Dugong dugon*) and their Habitats throughout their Range; Memorandum of Understanding concerning Conservation Measures for the Eastern Atlantic Populations of the Mediterranean Monk Seal (*Monachus monachus*); Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region; and Memorandum of Understanding concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia. These instruments can be found at “Memoranda of Understanding”, online: *CMS* <[www.cms.int/en/cms-instruments/mou](http://www.cms.int/en/cms-instruments/mou)>.

<sup>128</sup> *United Nations Convention on the Law of the Sea*, 10 December 1982, 1833 UNTS 397 (entered into force 16 November 1994) [UNCLOS], art 65 and 120.

<sup>129</sup> UNCLOS, art 65. For a detailed discussion of the UNCLOS provisions see Chapter 2.

<sup>130</sup> These are: Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa; Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia; and Memorandum of Understanding on the Conservation of Migratory Sharks.

<sup>131</sup> *Agreement on the Conservation of Albatrosses and Petrels*, 19 June 2001, 2258 UNTS 257 (entered into force 1 February 2004) [ACAP], Argentina, Australia, Brazil, Chile, France, Ecuador, New Zealand, Norway, Peru, South Africa, Spain, U.K., and Uruguay.

<sup>132</sup> ACAP, art 1(2)(n) and 2(1).

harassing, as well as “harmful interference” with the birds, their eggs, or their breeding sites.<sup>133</sup>

Limited exemptions are allowed for traditional needs of Indigenous peoples and for conservation and scientific purposes.<sup>134</sup> Additional prescribed measures include habitat conservation and restoration, elimination and control of harmful non-native species, development of scientific and educational initiatives, and implementation of initiatives aimed at prevention, removal or mitigation of adverse activities.<sup>135</sup> ACAP includes an Action Plan which elaborates on the conservation measures agreed upon by the Parties.

The Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC) seeks to promote the protection and recovery of sea turtles and their habitats based on the best available science while considering environmental, socioeconomic and cultural characteristics of the Parties.<sup>136</sup> The IAC directs its sixteen Parties<sup>137</sup> to prohibit intentional killing, capture, and trade (domestically) of sea turtles, their eggs, and products.<sup>138</sup> An exemption is available to “satisfy economic subsistence need of traditional communities.”<sup>139</sup> Habitat protection and restoration, promotion of scientific research and education, along with a qualified requirement to minimize human activities that could “seriously affect sea turtles” are additional measures included in the Convention.<sup>140</sup> The IAC was negotiated in response to the ruling by the World Trade Organization in the *Shrimp – Turtle* dispute centered on the use of turtle - excluder devices

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<sup>133</sup> ACAP, art 1(2)(q) and 3(2).

<sup>134</sup> ACAP, art 3(3).

<sup>135</sup> ACAP, art 3(1).

<sup>136</sup> *Inter-American Convention for the Protection and Conservation of Sea Turtles*, 1 December 1996, 2164 UNTS 29 (entered into force 1 November 2001) [IAC], art 2.

<sup>137</sup> Argentina, Belize, Brazil, Chile, Cost Rica, Ecuador, Guatemala, Dominican Republic, Honduras, Panama, Mexico, Peru, the Netherlands, U.S., Uruguay, and Venezuela.

<sup>138</sup> IAC, art 4(2)(a).

<sup>139</sup> IAC, art 4(3)(a).

<sup>140</sup> IAC, art 4(2) and Annex II.

(TEDs).<sup>141</sup> This history is evident in the IAC's requirement to reduce sea turtle capture and mortality in fishing activities, as well as in detailed provisions outlining the use of TEDs.<sup>142</sup>

Extensive commercial use of marine species has created obstacles to their protection. During the negotiations of the CMS, some delegations argued for exclusion of marine species, such as commercially exploited fishes.<sup>143</sup> Potential conflicts with UNCLOS provisions were cited as the reasons. This view did not prevail, but it was not until 2002 that the first marine fish, the white shark, was added to Appendix I of the Convention triggering strict protection. By comparison, nine species of marine mammals and three species of sea turtles were added to the same appendix in 1979 when the Convention was first adopted.

In the 1990s, a similar controversy arose when first commercially important marine fishes were proposed for listing under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).<sup>144</sup> Some delegations argued that CITES did not have the mandate or the expertise with respect to marine species, and that it was institutionally biased against their utilization.<sup>145</sup> This is despite the fact that the West Indian Ocean coelacanth and four species of anadromous sturgeons were included on the original Appendixes when the Convention was adopted.<sup>146</sup> All species of cetaceans were added to the CITES' appendixes in the 1980s in

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<sup>141</sup> Jayati Srivastava & Rajeev Ahuja, "Shrimp-Turtle Decision in WTO: Economic and Systemic Implication for Developing Countries" (2002) 37:33 *Economic & Political Weekly* 3445.

<sup>142</sup> IAC, art 4(2)(h) and Annex III.

<sup>143</sup> "CMS History and Structure: From Stockholm to Bonn" (2019), online (pdf): *CMS* <[www.cms.int/sites/default/files/publication/History%20%26%20Structure\\_en\\_0.pdf](http://www.cms.int/sites/default/files/publication/History%20%26%20Structure_en_0.pdf)>.

<sup>144</sup> Margaret A Young, *Trading Fish, Saving Fish: The Interaction between Regimes in International Law* (Cambridge: Cambridge University Press) in chapter 4; Amanda C. J. Vincent *et al*, "The role of CITES in the conservation of marine fishes subject to international trade" (2013) 15:4 *Fish & Fisheries* 563.

<sup>145</sup> Young, *ibid*.

<sup>146</sup> Vincent *et al*, *supra* note 144.

response to the IWC moratorium,<sup>147</sup> as were all species of sea turtles.<sup>148</sup> CITES and CMS are discussed in detail in chapter 2.

Some commercially valuable marine species are protected through bilateral and multilateral fisheries management measures administered by various fisheries bodies. It is outside the scope of this work to discuss these instruments and institutions in detail. Of note are the five tuna Regional Fisheries Management Organizations (RFMOs)<sup>149</sup> responsible for the management of tuna, billfishes, and some pelagic shark species and their fisheries across the globe. Bycatch in tuna purse seines and longlines is a primary source of mortality in some populations of endangered marine species such as sea birds, sea turtles, marine mammals, and sharks.<sup>150</sup> Despite their overlapping mandates and some progress to date, cooperation between conservation-focused intergovernmental bodies and fisheries management bodies remains in need of improvement.<sup>151</sup>

Shipping impacts on marine biodiversity are addressed by a cluster of instruments administered by the International Maritime Organization (IMO). They deal with matters such as pollution from ships,<sup>152</sup> use of anti-fouling systems,<sup>153</sup> and ships' routing.<sup>154</sup> There are options

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<sup>147</sup> Bowman, Davies & Redgewell, *supra* note 94 in chapter 6.

<sup>148</sup> Marydele Donnelly, "Sea Turtles and CITES" (1 February 2011), online: *The State of the World's Turtles* <[www.seaturtlestatus.org/articles/2011/5/1/sea-turtles-and-cites](http://www.seaturtlestatus.org/articles/2011/5/1/sea-turtles-and-cites)>.

<sup>149</sup> These are: the Commission for the Conservation of Southern Bluefin Tuna, Inter-American Tropical Tuna Commission, International Commission for the Conservation of Atlantic Tunas, Indian Ocean Tuna Commission, and Western and Central Pacific Fisheries Commission.

<sup>150</sup> Eric L Gilman, "Bycatch governance and best practice mitigation technology in global tuna fisheries" (2011) 35 *Marine Pol'y* 590.

<sup>151</sup> Friedman, K, SM Garcia & J Rice, "Mainstreaming biodiversity in fisheries" (2018) 95 *Marine Pol'y* 209.

<sup>152</sup> See *Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973*, 17 February 1978, 1340 UNTS 61, 1341 UNTS 3 (entered into force 2 October 1983) and Annexes.

<sup>153</sup> See *International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001*, 5 October 2001, 3356 UNTS 1 (entered into force 17 September 2008).

<sup>154</sup> IMO, *General Provisions on Ships' Routing*, Res. A. 572(14) (1985).

to establish area-based conservation measures as well.<sup>155</sup> It is outside the scope of this project to consider these instruments in detail,<sup>156</sup> but it is acknowledged that effective cooperation with the IMO is desirable for the conservation of marine species at risk to be successful. The most obvious connection is with marine mammals where ship strikes and underwater noise are some of the key threats.<sup>157</sup>

The last set of instruments to be mentioned relevant to the conservation and management of marine species at risk are the binding and non-binding agreements concluded within the UNEP's RSP since 1972. UNEP RSP consists of 18 individual Regional Seas Programmes (RSPs) spanning the globe and bringing together 143 countries in regional collaboration.<sup>158</sup> These programmes vary in the institutional and legal structures used to protect and manage marine species at risk, providing an opportunity for a comparative study. Evaluation of the effectiveness of four RSPs is the subject matter of this dissertation.

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<sup>155</sup> IMO, *Revised Guidelines for the Identification and Designation of Particular Sensitive Sea Areas*, A 24/Res.982 (2006)

<sup>156</sup> For a detailed discussion see Aldo Chircop, Chircop, Aldo "The Role of the IMO in Protecting Marine Biodiversity" (2020), online: *ResearchGate* <[www.researchgate.net/publication/345342173\\_The\\_Role\\_of\\_the\\_IMO\\_in\\_Protecting\\_Marine\\_Biodiversity/link/601187d7299bf1b33e2ab458/download](https://www.researchgate.net/publication/345342173_The_Role_of_the_IMO_in_Protecting_Marine_Biodiversity/link/601187d7299bf1b33e2ab458/download)>.

<sup>157</sup> O Koubrak, D VanderZwaag & B Worm, "Saving the North Atlantic Right Whale in a Changing Ocean: Gauging Scientific and Law and Policy Responses" (2021) 200 *Ocean & Coastal Management* 105109; O Koubrak, D VanderZwaag & B Worm, "Endangered Blue Whale Survival in the North Atlantic: Lagging Scientific and Governance Responses, Charting Future Courses" (2022) 37 *Int'l J Mar and Coast L* 11.

<sup>158</sup> "What does working with regional seas matter?" online: *UNEP* <<https://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/why-does-working-regional-seas-matter>>.

## CHAPTER 2

### Global Binding Obligations and Soft Law Principles

The previous chapter has shown that marine species are facing unprecedented pressures from human activities. Although extinction risk is difficult to evaluate, there is no doubt that urgent action is needed to avert disastrous declines in marine biodiversity. International environmental law had an early success in averting overexploitation of fur seals, and over the years, a suite of international instruments has been negotiated to protect and recover marine species at risk, in particular marine mammals. This chapter will position conservation of marine species at risk within the broader field of international environmental law. Reviewed in this chapter are law of the sea and fisheries-related instruments, conservation and international trade in wildlife conventions, habitat protection conventions, and instruments addressing sustainable development. Research on the effectiveness of international environmental agreements indicates that these instruments positively contribute to the achievement of their objectives, although there is room for improvement.<sup>1</sup> The question of effectiveness is discussed in detail in chapter 4.

International environmental law, broadly defined to include fisheries instruments, provides two pathways to influence state and non-state actor behaviour: by altering the calculation of what is in the actor's best-interest and setting a standard of what is considered to be appropriate conduct.<sup>2</sup> In the first instance, actors are perceived as rational players who

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<sup>1</sup> Arid Underdal, "Conclusions: Patterns of Regime Effectiveness" in Edward Miles *et al*, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002) 433; Michael A Jacobson, "The United Nations' Regional Seas Programme: How Does It Measure Up?" (1995) 23 *Coastal Management* 19; Daniel Bodansky, *The Art and Craft of International Environmental Law* (Cambridge, Massachusetts: Harvard University Press, 2010) 252.

<sup>2</sup> Ronald B Mitchell, "Compliance theory: Compliance, effectiveness, and behaviour change in international environmental law" in Daniel Bodansky, Jutta Brunnée & Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (New York: Oxford University Press, 2007) 893.



carefully assess the consequences of different alternatives and choose to behave in a way that maximizes self-benefit. Commitments under international environmental agreements are taken into account in this assessment process.<sup>3</sup> In the second instance, actors are seen as self-aware players who are motivated to behave in a way that is considered appropriate for them in the given circumstances. Here, the international environmental law sets the behavioural norms.<sup>4</sup>

International environmental law sets behavioural norms through a combination of binding, hard law and non-binding, soft law instruments, although the dividing line between these two concepts is not explicit and precise.<sup>5</sup> Elements such as intentions of the parties, legal nature of the instrument, precision of the commitments, and degree of delegated authority to domestic or international institutions need to be analyzed in order to position a document on the spectrum of obligation strength.<sup>6</sup> Traditionally, soft law was used as a precursor to treaties; over time its purposes and forms have expanded to include instruments such as codes of conduct and action plans.<sup>7</sup> In the case of the RSP, a variety of instruments underpin the programmes. Some programmes have based their work on regional action plans, while others have negotiated binding treaties. These different approaches are explained in chapter 3.

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<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> Kenneth W Abbot & Duncan Snidal, “Hard and Soft Law in International Governance” (2000) 54:3 Intl Organization 401; Jon Birger Skjærseth, Olav Schram Stokke & Jørgen Wettestad, “Soft Law, Hard Law, and Effective Implementation of International Environmental Norms” (2006) 6:3 Global Env Politics 104; Stephen J. Toope, “Formality and Informality” in Daniel Bodansky, Jutta Brunnée & Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (New York: Oxford University Press, 2007) 107.

<sup>6</sup> Kenneth W. Abbott et al., “The Concept of Legalization” (2000) 54:3 Intl Organization 401; Daniel Bodansky, “Legally binding versus non-legally binding instruments” in Scott Barrett, Carlo Carraro & Jaime de Melo, eds, *Towards a Workable and Effective Climate Regime* (VoxEU eBook, 2015) 155.

<sup>7</sup> Jürgen Friedrich, *International Environmental “soft law”: The Functions and Limits of Nonbinding Instruments in International Environmental Governance and Law* (New York: Springer, 2013).

The content and process of international law have been subject to criticism from a number of critical perspectives,<sup>8</sup> including the Third World Approaches to International Law (TWAIL).<sup>9</sup> TWAIL is the most relevant perspective to this discussion because the RSP brings together developed and developing countries. However, it is outside the scope of this work to examine this critical approach in detail, hence the following very brief treatment aimed at highlighting the key points of TWAIL critiques. This discussion will be picked up again in chapter 6.

TWAIL scholars focus their critique on challenging the assumptions that international law is neutral and equitable in its application to developed and developing states.<sup>10</sup> Anghie argues that the contemporary system of international law was developed to promote European colonization of the Americas and not to order affairs among equal states as it is often presented.<sup>11</sup> According to Anghie, the history of international law strongly suggests that the sovereignty of non-European states is perceived and treated differently from the sovereignty of the Western states by international actors. Persistent inequalities in economic and political resources mean

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<sup>8</sup> According to Altwickler and Diggelman, this is an “umbrella” term that brings together New Approaches to International Law (NAIL), Third World Approaches to International Law (TWAIL), and feminist approaches. See Tilman Altwickler & Oliver Diggelman, “What Should Remain of the Critical Approaches to International Law: International Legal Theory as Critique” (2014) 24 *Swiss Rev Intl & Eur L* 69. For discussions of each approach see for example, BS Chimni, *International Law and World Order: A Critique of Contemporary Approaches*, 2nd ed (New York: Cambridge University Press, 2017), Akbar Rasulov, “New Approaches to International Law: Images of a Genealogy” in Jose Maria Beneyto & David Kennedy, *New Approaches to International Law: The European and American Experiences* (TMC Asser-Springer, 2012) 151, Hilary Charlesworth, Christine Chinkin & Shelley Wright, “Feminist Approaches to International Law” (1991) 85:4 *Am J Intl L* 613, and Rowena Maguire, “Feminist Approaches” in Lavanya Rajamani & Jacqueline Peel, eds, *The Oxford Handbook of International Environmental Law*, 2nd ed (Oxford: Oxford University Press, 2021) 200.

<sup>9</sup> Karin Mickelson, “Critical Approaches” in Daniel Bodansky, Jutta Brunnée & Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (New York: Oxford University Press, 2007) 262.

<sup>10</sup> See for example, James T Gathii, “The Promise of International Law: A Third World View” (2021) 36 *Am U Intl L Rev* 377; Karin Mickelson, “South, North, International Environmental Law, and International Environmental Lawyers” (2000), 11 *YB Intl Env L* 52; Antony Anghie, *Imperialism, Sovereignty and the Making of International Law* (Cambridge University Press online: 2012); Sumudu Atapattu, “Global South Approaches” in Lavanya Rajamani & Jacqueline Peel, eds, *The Oxford Handbook of International Environmental Law*, 2nd ed (Oxford: Oxford University Press, 2021) 183.

<sup>11</sup> Anghie, *ibid* at 16 and 118.

that although there is formal equality among states, their capacity to participate and create international law differs.<sup>12</sup>

In her article on the failures of international environmental law to respond to the concerns of the Third World countries, Mickelson draws attention to the early wildlife treaties, discussed in chapter 1.2, and how they created costs for the local populations through displacement and restrictions on nature use while the benefits from wildlife exploitation accrued to white settlers.<sup>13</sup> This unequal distribution of costs and benefits of environmental degradation persisted over time and has to be taken into account when developing solutions. Mickelson writes, “While developing countries were aware that ‘pollution doesn’t respect borders,’ they insisted that the ‘environmental’ problems facing them had to be defined more broadly in order to encompass the negative effects of poverty as well as those of prosperity.”<sup>14</sup>

Mickelson criticizes the approach of the “environmentalism of the rich”<sup>15</sup> that promotes valuing the environment for its inherent value rather than its benefits to humans as being unresponsive to the needs of the developing countries. Instead, she advocates for a broader definition of environmentalisms within international environmental law that recognizes economic, social, cultural and historic consideration as being inextricably linked to the environment.

This insistence on adopting an instrumental value of the environment presents the following implications for species at risk conservation efforts. It raises questions whether only species that are commercially valuable or have the potential to provide a direct benefit should be

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<sup>12</sup> Gathii, *supra* note 10.

<sup>13</sup> Mickelson, *supra* note 10.

<sup>14</sup> *Ibid* at 61.

<sup>15</sup> *Ibid* at 65.

helped. It also needs to be noted that some historically commercially valuable species are no longer able to sustain that level of exploitation, and there are questions whether these species will ever sufficiently recover given their life histories and ecosystem changes.<sup>16</sup> These decisions will have to be made taking into account uncertainty around ecosystem structures and functions.

While raising justifiable critiques of the substance, process and impact of international law, not all TWAIL scholars advocate for the abolition of the international law system.<sup>17</sup> Instead, they call for the interrogation of its assumptions in light of the history and incorporation of non-Western perspectives in the creation of new interpretations, standards and norms of international law.<sup>18</sup> At the same time, some scholars question the feasibility of the necessary transformation within the current system based on capitalism, and some also call for accountability for the environmental destruction inflicted by the developed countries by way of reparations.<sup>19</sup>

The rest of the chapter builds on the discussion begun in chapter 1 and identifies global binding obligations and soft law principles directing states to protect species at risk and their habitats. Attention is given to how species at risk are defined and identified. The focus is on global instruments that have been ratified by a large number of the world's states. The following groups of instruments will be reviewed: law of the sea and fisheries-related instruments, conservation and international trade in wildlife conventions, habitat protection conventions, and

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<sup>16</sup> See for example, Phillip Neubauer *et al*, "Resilience and Recovery of Overexploited Marine Populations" (2013) 340:6130 *Science* 347.

<sup>17</sup> John D Haskell, "TRAIL-ing TWAIL: Arguments and Blind Spots in Third World Approaches to International Law" (2014) 27:2 *Can JL & Jur* 383.

<sup>18</sup> Anghie, *supra* note 10, at 318; Gathii, *supra* note 10 at 410; Mickelson, *supra* note 10 at 80.

<sup>19</sup> Atapattu, *supra* note 10; Kishan Khoday, "Decolonizing the Environment: Third World Approaches to the Planetary Crisis" (2022) 19:2 *Indonesian J Intl L* 189; Usha Natarajan, "TWAIL and the Environment: The State of Nature, Nature of the State, and the Arab Spring," (2012) 14 *Oregon Rev Intl L* 177; Usha Natarajan & Kishan Khoday, "Locating Nature: Making and Unmaking International Law," (2014) 27 *Leiden J Intl L* 573.

instruments addressing sustainable development. The concept of sustainable development is included in the discussion because it is supposed to provide a mechanism for the integration of environmental and development concerns. The chapter concludes with an analysis of the reviewed instruments for gaps, conflicts, and overlaps.

## **2.1 Law of the sea and fisheries instruments**

### 2.1.1 The United Nations Convention on the Law of the Sea

When the United Nations Convention on the Law of the Sea (UNCLOS) was adopted in 1982, it transformed the governance of marine living resources by introducing space-based rules that attempted to constrain the right to fish on the high seas and strengthened the management role of coastal states.<sup>20</sup> With 168 state parties, UNCLOS is almost universally accepted.<sup>21</sup> Although some have argued that the Convention establishes a substantive legal regime for the protection of the marine environment,<sup>22</sup> this assertion may be overly optimistic given the narrow scope and general nature of the environmental obligations contained in UNCLOS. The general nature of the environmental obligations under UNCLOS is particularly glaring compared to the

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<sup>20</sup> *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, 4 August 1995, 2167 UNTS 3 (entered into force 11 December 2001) [UNCLOS]; Serge M Garcia, Jake Rice & Anthony Charles, “Governance of marine fisheries and biodiversity conservation: Convergence or coevolution” in Serge M Garcia, Jake Rice & Anthony Charles, eds, *Governance of Marine Fisheries and Biodiversity Conservation: Interaction and Co-evolution* (Hoboken: Wiley-Blackwell, 2014) 18.

<sup>21</sup> “Law of the Sea”, online: *United Nations Treaty Collection* <[treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg\\_no=XXI-6&chapter=21&Temp=mtdsg3&clang=\\_en](http://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=_en)>. The U.S. is one of the few states that has not ratified UNCLOS. For a discussion of the U.S. involvement with the negotiations and subsequent barriers to ratification see John A Duff, “The United States And The Law Of The Sea Convention: Sliding Back From Accession And Ratification” (2005) 11:1 *Ocean & Coastal LJ* 1. Arguments have been made that UNCLOS represents customary international law to a large extent and is therefore binding on all states, including non-parties. See for example, Martin Lishexian Lee, “The Interrelation Between the Law of the Sea Convention and Customary International Law” (2006) 7 *San Diego Intl LJ* 405.

<sup>22</sup> Rüdiger Wolfrum & Nele Matz, “The Interplay of the United Nations Convention on the Law of the Sea and the Convention on Biological Diversity” (2000) 4:1 *Max Planck YB UN L Online* 445.

precise nature of state rights to exploit marine resources within their jurisdictions and on the high seas.<sup>23</sup>

Part XII of UNCLOS is dedicated to the marine environment and includes a general obligation to protect and preserve.<sup>24</sup> Protection and conservation of the marine environment includes conservation of the marine living resources,<sup>25</sup> but the focus of the prescribed duties is on pollution control from all sources.<sup>26</sup> States are specifically directed to take anti-pollution measures “necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.”<sup>27</sup> Otherwise, UNCLOS is silent with respect to the need to protect species at risk.

UNCLOS explicitly recognizes six categories of marine species: straddling stocks, highly migratory species, marine mammals, anadromous and catadromous stocks, and sedentary species. Threatened species could fall into any one of these categories. UNCLOS assigns responsibilities for these stocks to coastal states and flag states.

There is a general obligation on coastal states to ensure that the living resources in their Exclusive Economic Zones (EEZs) are not endangered by over-exploitation, while promoting their optimum utilization.<sup>28</sup> For harvested species, this means that their populations need to be maintained or restored to levels that can produce qualified maximum sustainable yield.<sup>29</sup> Coastal states only need to “take into consideration” the effects of conservation and management

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<sup>23</sup> Compare UNCLOS art. 192 to UNCLOS art. 61 through 68 and art. 116 through 120.

<sup>24</sup> UNCLOS, art 192.

<sup>25</sup> *Southern Bluefin Tuna (New Zealand v Japan, Australia v Japan)*, Provisional Measures, Order of 27 August 1999, [1999] ITLOS Rep 280, para 70.

<sup>26</sup> UNCLOS, art 194.

<sup>27</sup> UNCLOS, art 194(5).

<sup>28</sup> UNCLOS, art 61(2) and 62(1).

<sup>29</sup> UNCLOS, art 61(3).

measures on “species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.”<sup>30</sup> There is no corresponding obligation to ensure that the living resources on the high seas are not endangered by over-exploitation. Instead, UNCLOS parties are directed to cooperate in maintaining or restoring harvested species to levels that can produce modified maximum sustainable yield, while taking into consideration the effects on associated or dependent species.<sup>31</sup>

Flag states have jurisdiction over vessels flying their flag on the high seas, as well as within EEZs, subject to the rights of the corresponding coastal state.<sup>32</sup> Flag states have the obligation to “effectively exercise its jurisdiction and control in administrative, technical and social matters.”<sup>33</sup> This specifically includes measures necessary to ensure that international regulations regarding control of marine pollution are observed.<sup>34</sup> Flag states also have obligations to take the necessary measures to ensure that vessels flying its flag are not engaged in illegal, unreported and unregulated (IUU) fishing in the EEZs of third party coastal states.<sup>35</sup> Negative impacts of IUU fishing on threatened species include direct overexploitation, incidental mortality in fishing gear and habitat damage.<sup>36</sup>

Looking at the additional responsibilities assigned to the different categories of species recognized in UNCLOS reveals that marine mammals enjoy special benefits. States are explicitly

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<sup>30</sup> UNCLOS, art 61(4).

<sup>31</sup> UNCLOS, art 118 and 119.

<sup>32</sup> UNCLOS, art 58(2) and 92(1).

<sup>33</sup> UNCLOS, art 94(1).

<sup>34</sup> UNCLOS, art 94(4)(c) and 94(5).

<sup>35</sup> *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission*, Advisory Opinion, [2015] ITLOS Rep 4, para 124.

<sup>36</sup> Kimberly A Riskas *et al*, “Evaluating the threat of IUU fishing to sea turtles in the Indian Ocean and Southeast Asia using expert elicitation” (2018) 217 *Biological Conservation* 232.

allowed to adopt measures that “prohibit, limit or regulate” the exploitation of these species more strictly than otherwise permitted under UNCLOS in coastal waters and on the high seas.<sup>37</sup> For straddling stocks, on the other hand, UNCLOS obligations are limited to the duty to cooperate<sup>38</sup> either directly or through a fisheries organization in the management of these stocks.<sup>39</sup> This duty applies to coastal states and states fishing for the straddling stocks on the high seas. Similarly, states fishing for highly migratory species, as defined in Annex I of UNCLOS, are required to cooperate in the management of these species with the goal of promoting optimum utilization.<sup>40</sup> For anadromous and catadromous species, states in whose rivers the stocks originate and states in whose waters the species spends the greater part of their life cycle are given the management responsibilities.<sup>41</sup> These states are to cooperate with other states that have a fishing interest in these stocks.<sup>42</sup> Sedentary species, although recognized as a unique category of species, are completely excluded from the conservation and management obligations contained in UNCLOS.<sup>43</sup> Coastal states are given the exclusive right to exploit these species without any corresponding responsibility to ensure their sustainable use other than the general obligations.<sup>44</sup> This different treatment of sedentary and non-sedentary species was borrowed from the

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<sup>37</sup> UNCLOS, art 65 and 120.

<sup>38</sup> According to Craik, duty to cooperate is a procedural duty that limits exercise of state discretion in pursuit of self-interest. Its legal obligations vary depending on the wording and context of each legal instrument with the strength of the obligation changing depending on the nature of the affected rights and the extent of impact. It is outside the scope of this dissertation to discuss the content of the duty to cooperate in detail. See Neil Craik, “The Duty to Cooperate in International Environmental Law: Constraining State Discretion through Due Respect” (2019), 30:1 YB Intl Env L 22.

<sup>39</sup> UNCLOS, art 63.

<sup>40</sup> UNCLOS, art 64.

<sup>41</sup> UNCLOS, art 66(1) and 67(1).

<sup>42</sup> UNCLOS, art 66(3) and 67(3).

<sup>43</sup> UNCLOS, art 68 and 77.

<sup>44</sup> Joanna Mossop, “The relationship between the continental shelf regime and a new international instrument for protecting marine biodiversity in areas beyond national jurisdiction” (2017) ICES J Marine Sci 1.



Convention on the Continental Shelf without modification despite the approach not having any ecological justification.<sup>45</sup>

### 2.1.2 The United Nations Fish Stock Agreement

The UN Fish Stocks Agreement (UNFSA) was negotiated in response to the disputes between coastal states and distant water fishing nations over overexploitation of transboundary stocks.<sup>46</sup> It elaborates upon the UNCLOS obligations with respect to the straddling stocks and highly migratory stocks (as listed under UNCLOS) with a view to “ensure the long-term conservation and sustainable use” of these resources.<sup>47</sup> The agreement also clarifies the UNCLOS duty to cooperate by directing states to join existing regional or subregional fisheries management organizations or arrangements<sup>48</sup> or establish new ones where they do not exist.<sup>49</sup> It implicitly recognizes the competence of these organizations or arrangement to establish conservation and management measures for particular straddling and highly migratory stocks.<sup>50</sup> With 91 parties, UNFSA has a narrower base of support than UNCLOS.<sup>51</sup> China, with the world’s highest fishing effort and largest catches,<sup>52</sup> is conspicuously absent. Nevertheless, most

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<sup>45</sup> *Ibid.*

<sup>46</sup> *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, 4 August 1995, 2167 UNTS 3 (entered into force 11 December 2001) [UNFSA]; Gordon R Munro, “The United Nations Fish Stocks Agreement of 1995: History and Problems of Implementation” (2000) 15 *Marine Resource Economics* 265.

<sup>47</sup> UNFSA, art 2.

<sup>48</sup> UNFSA, art 8(1).

<sup>49</sup> UNFSA, art 8(5).

<sup>50</sup> UNFSA, art 8(3).

<sup>51</sup> “Chronological lists of ratifications of, accessions and successions to the Convention and the related Agreements” (March 2020), *Oceans and Law of the Sea United Nations*, <[www.un.org/Depts/los/reference\\_files/chronological\\_lists\\_of\\_ratifications.htm#Agreement%20for%20the%20implementation%20of%20the%20provisions%20of%20the%20Convention%20relating%20to%20the%20conservation%20and%20management%20of%20straddling%20fish%20stocks%20and%20highly%20migratory%20fish%20stocks](http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm#Agreement%20for%20the%20implementation%20of%20the%20provisions%20of%20the%20Convention%20relating%20to%20the%20conservation%20and%20management%20of%20straddling%20fish%20stocks%20and%20highly%20migratory%20fish%20stocks)>.

<sup>52</sup> Chngliang Zhang *et al*, “The dynamics of the fishing fleet in China Seas: A glimpse through AIS monitoring” (2022) 819 *Science of The Total Environment* 153150 at 2.

other states with an interest in international fisheries are parties, and the instrument has been very influential in the international fisheries management sphere.<sup>53</sup>

UNFSA contains a general obligation to protect marine biodiversity when cooperatively managing straddling and highly migratory fish stocks.<sup>54</sup> There is also a vague requirement to assess the impact of fishing, other human activities and environmental factors on these species, as well as species belonging to the same ecosystems or associated with or dependent on target stocks.<sup>55</sup> Furthermore, parties are asked to minimize pollution, waste, discards, and catch by ghost fishing gear.<sup>56</sup>

Otherwise, UNFSA divides species into two groups: (1) target species; and (2) non-target, associated and dependent species. Duties vary depending on the category. It briefly mentions endangered species as a sub-set of the second category but does not assign any additional state obligations with respect to these species.<sup>57</sup>

With respect to target species, states are required to cooperate in adopting measures “to ensure [their] long-term sustainability” and “promote the objective of their optimum utilization.”<sup>58</sup> These measures need to be based on the best available science and designed to “maintain or restore stocks at levels capable of producing maximum sustainable yield” as qualified by the listed environmental and economic factors.<sup>59</sup> For non-target, associated and dependent species, states are required to adopt measures, when necessary, to maintain or restore

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<sup>53</sup> David A Balton & Holly R Koehler, “Reviewing the United Nations Fish Stocks Treaty” (2006) 7:1 Sustainable Dev L & Pol’y 5.

<sup>54</sup> UNFSA, art 5(g).

<sup>55</sup> UNFSA, art 5(e).

<sup>56</sup> UNFSA, art 5(f).

<sup>57</sup> UNFSA, art 5(f).

<sup>58</sup> UNFSA, art 5(a).

<sup>59</sup> UNFSA, art 5(b).

the populations of these species “above levels at which their reproduction may become seriously threatened.”<sup>60</sup> States are also asked to minimize catch of non-target species and impacts on associated and dependent species, especially endangered ones, through the use of more selective fishing gear.<sup>61</sup>

According to UNFSA, states are to “apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.”<sup>62</sup> This is to be done through the use of stock-specific reference points and pre-agreed upon management measures that are to be applied if these reference points are exceeded.<sup>63</sup> There is a mention of the need to manage associated or dependent species “at levels consistent with previously agreed precautionary reference points,”<sup>64</sup> however the two types of precautionary reference points described under UNFSA, limit and target, aim at constraining harvesting activities within safe biological limits, which may not be applicable to non-target species.<sup>65</sup> There is also a concern that the application of the precautionary approach under UNFSA is tied to the concept of maximum sustainable yield, which has been criticized as a tool that could curb overfishing.<sup>66</sup>

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<sup>60</sup> UNFSA, art 5(e).

<sup>61</sup> UNFSA, art 5(f).

<sup>62</sup> UNFSA, art 6(2).

<sup>63</sup> UNFSA, art 6(3)(b).

<sup>64</sup> UNFSA, Annex II, s 4.

<sup>65</sup> UNFSA, Annex II, s 2.

<sup>66</sup> Phillip M Saunders, “The Western and Central Pacific Fisheries Commission: Management Challenges and Development Imperatives” in Dawn A Russell & David L VanderZwaag, eds, *Recasting Transboundary Fisheries Management Arrangements in Light of Sustainability Principles: Canadian and International Perspectives* (Leiden: Brill Nijhoff, 2010) 149 at 159; Carmel Finley & Naomi Oreskes, “Maximum sustainable yield: a policy disguised as science” (2013) 70:2 ICES J Marine Sci 245; Carmel Finley, *All the Fish in the Sea: Maximum Sustainable Yield and the Failure of Fisheries Management* (Chicago: The University of Chicago Press, 2011) at 162.

With respect to non-target, associated or dependent species, states are directed to develop data collection and research programs to assess the impact of fishing activities on these species, and “adopt plans which are necessary to ensure the conservation of such species and to protect habitats of special concern.”<sup>67</sup> Furthermore, the impact of fishing activities on non-target, associated or dependent species is one of the factors that has to be taken into account when applying the precautionary approach to the management of target stocks.<sup>68</sup> Finally, states are to enhance monitoring of target fish stocks and non-target species if there are concerns about their conservation status and use the collected information to review the effectiveness of existing management measures.<sup>69</sup>

Two additional provisions under the precautionary approach should be mentioned in this discussion. First, states are asked to adopt “cautious” management measures, including catch and effort limits, when pursuing new or exploratory fisheries.<sup>70</sup> These fisheries are to be developed gradually, taking into account the available data on the impact of fisheries on long-term sustainability.<sup>71</sup> Second, states are directed to adopt temporary emergency management measures if a “natural phenomenon has a significant adverse impact on the status of straddling fish stocks or highly migratory fish stocks.”<sup>72</sup>

### 2.1.3 FAO Code of Conduct for Responsible Fisheries

The Food and Agriculture Organization of the United Nations’ Code of Conduct for Responsible Fisheries (Code of Conduct) is a voluntary framework for the conservation and

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<sup>67</sup> UNFSA, art 6(3)(d).

<sup>68</sup> UNFSA, art 6(3)(c).

<sup>69</sup> UNFSA, art 6(5).

<sup>70</sup> UNFSA, art 6(6).

<sup>71</sup> UNFSA, art 6(6).

<sup>72</sup> UNFSA, art 6(7).

management of aquatic living resources grounded in international law.<sup>73</sup> It is directed at states, fishing entities, as well as intergovernmental and non-governmental organizations involved in fisheries, fish marketing and processing, as well as aquaculture and fisheries research.<sup>74</sup>

Endangered species are mentioned several times throughout the document. First off, states and regional fisheries management organizations and arrangements are advised that when they adopt measures designed to maintain or restore target stocks at levels capable of producing qualified maximum sustainable yield, these measures need to provide, *inter alia*, for conservation of biodiversity of aquatic habitats and ecosystems and protection of endangered species.<sup>75</sup> Furthermore, these management measures should minimize waste, discards, ghost gear catch, incidental catch, as well as negative impacts on associated or dependent species, in particular endangered species.<sup>76</sup> With respect to aquaculture, the Code of Conduct recommends that states promote research, and where feasible, the development of culture techniques to enhance fish stocks, specifically for endangered species.<sup>77</sup> These steps are meant to “protect, rehabilitate and enhance” the stocks of endangered species while taking into account the need to preserve their genetic diversity.<sup>78</sup> Finally, with respect to international trade, the Code of Conduct recommends that states cooperate in complying with the obligations under international trade agreements on endangered species.<sup>79</sup> The Code of Conduct also mentions “depleted

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<sup>73</sup> Code of Conduct for Responsible Fisheries”, online: *FAO* <[www.fao.org/fishery/code/en](http://www.fao.org/fishery/code/en)> [Code of Conduct].

<sup>74</sup> Code of Conduct, s 1.2 and 1.3.

<sup>75</sup> Code of Conduct, s 7.2.1 and 7.2.2.

<sup>76</sup> Code of Conduct, s 7.6.9.

<sup>77</sup> Code of Conduct, s 9.3.5.

<sup>78</sup> Code of Conduct, s 9.3.5.

<sup>79</sup> Code of Conduct, s 11.2.9.

resources”.<sup>80</sup> For these stocks, states and fisheries management organizations and arrangement are advised to adopt measures that “facilitate recovery” and restore critical habitats.<sup>81</sup>

The Code of Conduct contains language similar to UNFSA of target and non-target, associated and dependent species. With respect to all species, the Code advises that fisheries management should “promote the maintenance of the quality, diversity and availability of fishery resources in sufficient quantities for present and future generations in the context of food security, poverty alleviation and sustainable development.”<sup>82</sup> The precautionary approach should be applied “widely” to conservation, management and exploitation of living resources and a lack of scientific information should not be used as a reason for failing or postponing to adopt conservation measures for all species.<sup>83</sup> In implementing the precautionary approach, states are supposed to take into account the uncertainties around the biology of the stock, adopted reference points, stock condition as well as impact of fishing activities on non-target species, in addition to environmental and economic conditions.<sup>84</sup> States are asked to assess the impacts of environmental factors on all species, as well as evaluate the relationship among the populations in the ecosystems.<sup>85</sup> They should conduct studies on the selectivity of fishing gear and the environmental impact of fishing gear on all species, including the behaviour of species, in order to inform management measures.<sup>86</sup>

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<sup>80</sup> Code of Conduct, s 7.6.10.

<sup>81</sup> Code of Conduct, s 7.6.10.

<sup>82</sup> Code of Conduct, s 6.2.

<sup>83</sup> Code of Conduct, s 6.5.

<sup>84</sup> Code of Conduct, s 7.5.2.

<sup>85</sup> Code of Conduct, s 7.2.3.

<sup>86</sup> Code of Conduct, s 12.10.

Specifically with respect to non-target, associated and dependent species, states are advised to minimize bycatch and impact on these species by using selective gear and practices.<sup>87</sup> States should cooperate in the development of such gear and methods.<sup>88</sup>

#### 2.1.4 Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction

A further shift from freedom of the high seas to high seas governance is seen in the Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction.<sup>89</sup> The impetus for this agreement was the unsustainable impact on the environment in these areas from traditional activities such as fishing and shipping, as well as uncertainty over effects of proposed activities such as deep sea mining.<sup>90</sup>

In 2004, the United Nations General Assembly approved the establishment of an Ad Hoc Open-ended Informal Working Group to study the issue of conservation and sustainable use of marine biodiversity on the high seas and the Area.<sup>91</sup> In 2015, the General Assembly adopted the recommendation of the working group to negotiate a legally binding treaty under UNCLOS to address this issue.<sup>92</sup> The text of the Agreement was finalized in March 2023. The negotiations and the subsequent text focus on four topics: (1) marine genetic resources and access and benefit

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<sup>87</sup> Code of Conduct, s 6.6 and 8.5.

<sup>88</sup> Code of Conduct, s 8.5.1.

<sup>89</sup> UNGA, *Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction*, A/CONF.232/2023/4 (2023) [BBNJ Agreement]; Atsuko Kanehara, “What Does a New International Legally Binding Instrument on BBNJ ‘Under the UNCLOS’ Mean?” (2016), online: *Ministry of Foreign Affairs of Japan* <[www.mofa.go.jp/files/000141431.pdf](http://www.mofa.go.jp/files/000141431.pdf)>.

<sup>90</sup> Glen Wright *et al*, *The long and winding road: negotiating a treaty for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction* (2018), online: *IDDRI* <[www.iddri.org/en/publications-and-events/study/long-and-winding-road-negotiating-high-seas-treaty](http://www.iddri.org/en/publications-and-events/study/long-and-winding-road-negotiating-high-seas-treaty)>.

<sup>91</sup> UNGA, *Oceans and the law of the sea*, A/RES/59/24 (2004), para 73.

<sup>92</sup> UNGA, *Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction*, A/RES/69/292 (2015).

sharing; (2) area-based management tools, including marine protected areas; (3) environmental impact assessment; and (4) capacity-building and transfer of marine technology.<sup>93</sup> The implementation of the Agreement is to be guided by the precautionary principle or approach,<sup>94</sup> as appropriate; an ecosystem approach; an integrated approach to ocean management; and “an approach that builds ecosystems resilience.”<sup>95</sup>

Several provisions in the Agreement have the potential to help marine species at risk on the high seas. For example, one of the objectives for area-based management tools is protection, preservation, restoration and maintenance of biodiversity and ecosystems.<sup>96</sup> Food security and other socioeconomic objectives are also recognized.<sup>97</sup> Areas that are important to endangered, threatened or declining species or habitats may qualify for protection under the area-based management tools envisaged in this Agreement.<sup>98</sup> The environmental impact assessment mechanism established by the Agreement also could help mitigate the negative impacts of human activities on species at risk on the high seas.

From the beginning the negotiators were instructed that the negotiations and resulting document “should not undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies.”<sup>99</sup> This condition is also found in article 5 of the

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<sup>93</sup> BBNJ Agreement, *supra* note 89; UNGA, *International legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction*, A/RES/72/249 (2017); UNGA, *Revised draft text of an agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction*, A/CONF.232/2020/3 (2019).

<sup>94</sup> There is uncertainty whether the terms precautionary approach and precautionary principle are interchangeable or whether they represent different strengths of obligations. See David L VanderZwaag, “The Precautionary Approach and the International Control of Toxic Chemicals: Beacon of Hope, Sea of Confusion and Dilution” (2011) 33:3 *Houston J Intl L* 605.

<sup>95</sup> BBNJ Agreement, at art 7.

<sup>96</sup> BBNJ Agreement, art 17(c).

<sup>97</sup> BBNJ Agreement, art 17(d).

<sup>98</sup> BBNJ Agreement, Annex I(e).

<sup>99</sup> A/RES/69/292, *supra* note 92 at para 3.



text. There is no consensus among the parties on the practical implications of this provision with some states arguing for a broad interpretation that would support an ambitious new agreement, while others prefer a scope limited to matters that are not adequately addressed by existing instruments.<sup>100</sup> Nevertheless, parties are to strengthen and promote cooperation among relevant legal instruments and sectoral bodies in order to advance conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction.<sup>101</sup>

Five regional seas conventions cover areas beyond national jurisdiction.<sup>102</sup> Establishment of high seas MPAs that apply only to their parties is the most commonly used conservation tool in these areas.<sup>103</sup> The effect of the new agreement on the activities of RSPs remains to be seen.

## **2.2 Conservation and international trade in wildlife conventions**

### 2.2.1 The Convention on Biological Diversity

The Convention on Biological Diversity (CBD) aims to conserve biological diversity, meaning variability among species, between species and of ecosystems, promote the sustainable use of its components, and require fair and equitable sharing of the benefits derived from the utilization of genetic resources.<sup>104</sup> This widely-supported Convention has been described as “a coherent framework for coordinated action to preserve biodiversity worldwide”<sup>105</sup> and as “the

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<sup>100</sup> Wright *et al*, *supra* note 90.

<sup>101</sup> BBNJ Agreement, art 8(1).

<sup>102</sup> Darius Campbell *et al*, “Regional Seas programmes covering Areas Beyond National Jurisdictions” (2017) Regional Seas Reports and Studies No 202, online (pdf): UN <[www.un.org/Depts/los/biodiversityworkinggroup/Regional\\_seas\\_programmes\\_ABNJ.pdf](http://www.un.org/Depts/los/biodiversityworkinggroup/Regional_seas_programmes_ABNJ.pdf)>.

<sup>103</sup> *Ibid*.

<sup>104</sup> *Convention on Biological Diversity*, 5 June 1992, 1760 UNTS 79 (entered into force 29 December 1993) [CBD], art 1 and 2 “biological diversity”.

<sup>105</sup> Kal Raustiala & David G Victor, “Biodiversity Since Rio: The Future of the Convention on Biological Diversity” (1996) 38:4 *Environment* 16 at 17.

treaty riddled with ambiguity and omission”.<sup>106</sup> These contradictions are not surprising. The CBD tries to strike a compromise between the anthropocentric approach to biodiversity use and a preservationist view, recognized in the preamble as the intrinsic value of biodiversity.

A number of commitments are directly applicable to the protection of marine species at risk. First, the contracting parties agree, as far as possible and appropriate, to promote the maintenance of viable populations of species.<sup>107</sup> The CBD Secretariat defined a “viable population” as “one which maintains its genetic diversity; maintains potential for evolutionary adaptation; and faces minimal risk of extinction or extirpations from demographic fluctuations, environmental variations and potential catastrophe, including over-use.”<sup>108</sup> Second, the parties agree to promote the recovery of threatened species.<sup>109</sup> This is to be done through the development and implementation of plans and other *in-situ* management measures, to the extent possible and appropriate, as well as through complementary *ex-situ* conservation approaches.<sup>110</sup> Finally, the parties have to develop and maintain legislation protecting threatened species and populations.<sup>111</sup> In a subsequent implementation review the Secretariat highlighted the importance of supporting recovery measures through appropriate legal tools.<sup>112</sup>

The ecosystem approach promoted by the CBD has the potential to benefit marine species at risk. The CBD COP defined the ecosystem approach as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use

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<sup>106</sup> *Ibid* at 22.

<sup>107</sup> CBD at art 8(d).

<sup>108</sup> CBD, *Approaches and Experiences Related to the Implementation of Articles 6 and 8 of the Convention on Biological Diversity*, UNEP/CBD/COP/2/12 (1995) at para 39.

<sup>109</sup> CBD, art 8(f)

<sup>110</sup> CBD, art 8(f) and 9(c).

<sup>111</sup> CBD, art 8(k).

<sup>112</sup> UNEP/CBD/COP/2/12, *supra* note 108, para 51.

in an equitable way.”<sup>113</sup> It specifically stated that the ecosystem approach does not preclude the use of other management and conservation measures such as the single-species approaches. At the same time, the COP Decision emphasized the need to focus on the conservation and restoration of the interactions within species, among species and between species and their abiotic environment rather than simply on the protection of individual species. Arguably protection of species at risk should have been identified as a priority within the ecosystem approach given that a species disappearance would impact the whole system in ways that are difficult to predict with certainty. Otherwise, there is a risk that the needs of species threatened with extinction could be subsumed by human needs especially since the Ecosystem Approach Decision and the Convention as a whole promote balancing conservation and use of biological diversity to achieve human objectives.<sup>114</sup>

The CBD provisions related to the incorporation of Indigenous knowledge into conservation action also have potential to improve outcomes to marine species at risk by expanding understandings of the species and their habitats. The convention requires parties to “respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application.”<sup>115</sup> To facilitate implementation of the above provisions, the CBD established an ad hoc open-ended inter-sessional Working Group on Article 8(j) at COP4 in 1998.<sup>116</sup> The Programme of Work adopted by the Working Group at COP5 in 2000 contains a number of points beneficial to the conservation of marine species at risk. For example, it calls for the development of guiding principles and standards to strengthen

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<sup>113</sup> CBD, *Ecosystem Approach*, Decision V/6, UNEP/CBD/COP/5/23 (2000) at para A.1.

<sup>114</sup> Oliver A Houck, “On the Law of Biodiversity and Ecosystem Management” (1997) 81 Minn L Rev 869.

<sup>115</sup> CBD at art 8(j).

<sup>116</sup> CBD, *Implementation of Article 8(j) and related provisions*, Decision IV/9 (1998).

the use of Indigenous knowledge in conservation and sustainable use of biodiversity.<sup>117</sup> It also recognizes the Ecosystem Approach, as advanced by the CBD, as a mechanism for including participation of Indigenous communities in the biodiversity-related decision-making. Other measures aimed at building capacity of Indigenous communities to ensure their effective participation in the decision-making and sharing of benefits arising from biodiversity use may be indirectly beneficial to marine species at risk by broadening perspectives and approaches to species conservation and use.

During the negotiations, the focus was almost exclusively on the terrestrial biodiversity.<sup>118</sup> Nevertheless, at the second COP, the participating ministers adopted the Jakarta Mandate on Marine and Coastal Biodiversity – a global consensus on the importance of marine and coastal biodiversity.<sup>119</sup> They also urged the parties to implement the decisions related to these issues. A complete program of work was subsequently adopted.<sup>120</sup> It did not mention protection and recovery of threatened species, even in the program element dealing with marine and coastal living resources. The importance of protecting marine habitat was recognized, but no priority was given to species at risk. The program of work was updated in 2004 and extended to 2010, but no specific species at risk considerations were incorporated.<sup>121</sup> Elements of the program that focus on coral reef health and marine protected areas are examples of activities that have indirect benefit to endangered species.

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<sup>117</sup> CBD, *Article 8(j) and related provisions*, Decision V/16 (2000) at Element 3, Task 13.

<sup>118</sup> Wolfrum & Matz, *supra* note 22.

<sup>119</sup> “The Jakarta Mandate – from global consensus to global work”, online (pdf): *CBD* <[www.cbd.int/doc/publications/jm-brochure-en.pdf](http://www.cbd.int/doc/publications/jm-brochure-en.pdf)> [Jakarta Mandate].

<sup>120</sup> CBD, *Conservation and sustainable use of marine and coastal biological diversity, including programme of work*, Decision IV/5, COP4 (1998).

<sup>121</sup> CBD, *Decision adopted by the Conference of the Parties to the Convention on Biological Diversity at its seventh meeting*, UNEP/CBD/DEC/VII/5 (2004).

The UNEP Regional Seas Programmes were invited to coordinate activities relevant to the Jakarta Mandate work program.<sup>122</sup> At COP6, the Conference of the Parties invited the Executive Secretary to strengthen collaboration with regional seas conventions and action plans.<sup>123</sup> The call to cooperate was subsequently repeated and narrowed to facilitate the description of Ecologically or Biologically Significant Marine Areas (EBSAs).<sup>124</sup> Criteria for identification of EBSA include the area's importance to threatened, endangered or declining species.<sup>125</sup>

At the tenth COP meeting held in Nagoya, Japan, the parties adopted the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets to guide the implementation of the Convention.<sup>126</sup> One of the goals of the Strategic Plan is “continuing direct action to safeguard and, where necessary, restore biodiversity and ecosystem services.”<sup>127</sup> It was noted that immediate action using tools such as protected areas and species-recovery programs can help conserve biodiversity. This is the only goal that mentions species-specific measures.

Aichi target 12 aimed at achieving the above objective, states: “By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.” This is the only Aichi target that specifically mentions species at risk. Two targets are indirectly relevant to species at risk conservation. Target 6 is specific to the marine environment. It states:

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<sup>122</sup> Jakarta Mandate, *supra* note 119.

<sup>123</sup> CBD, *Marine and coastal biological diversity*, Decision VI/3, COP6 (2002).

<sup>124</sup> CBD, *Decision adopted by the conference of the parties to the Convention on Biological Diversity at its tenth meeting. Marine and Coastal Biodiversity*, UNEP/CBD/COP/DEC/X/29 (2010).

<sup>125</sup> “Ecologically or Biologically Significant Marine Areas, Background on the EBSA Process”, online: *CBD* <[www.cbd.int/ebsa/about](http://www.cbd.int/ebsa/about)>.

<sup>126</sup> CBD, *Decision adopted by the conference of the parties to the Convention on Biological Diversity at its tenth meeting. Marine and Coastal Biodiversity*, UNEP/CBD/COP/DEC/X/2 (2010).

<sup>127</sup> *Ibid* at para 10(c).

By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

This target is aimed at reducing the direct pressure on biodiversity and promoting sustainable use. Given the importance of habitat, the well-publicized Target 11, conservation of at least ten percent of coastal and marine areas through marine protected areas and other area-based conservation measures, is also indirectly applicable to the protection of marine species at risk. The Sustainable Ocean Initiative was started in 2010 to help countries achieve Aichi Targets as they apply to the coastal and marine environment.<sup>128</sup> The Action Plan for the Sustainable Ocean Initiative (2015- 2020) did not address Target 12. But it did address Targets 6 and 11.

At COP15, the Conference of the Parties adopted the Kunming-Montreal Global biodiversity framework as a step towards the 2050 Vision of “Living in harmony with nature.”<sup>129</sup> The final framework is not as ambitious when it comes to the recovery of species at risk as the pre-conference drafts, but nevertheless contains commitments that give hope. Goal A is dedicated to ecosystem integrity and specifies that “Human induced extinction of known threatened species is halted, and, by 2050, extinction rate and risk of all species are reduced tenfold.”<sup>130</sup> Goal B is about meeting people’s needs and calls for biodiversity to be sustainably used and ecosystem functions and services that are in decline restored. Goal C is about fair and equitable sharing of benefits arising from utilization of biodiversity. It specifically calls for

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<sup>128</sup> Sustainable Ocean Initiative Global Partnership Meeting, “Action Plan for the Sustainable Ocean Initiative (2015 – 2020)”, online (pdf): *CBD* <[www.cbd.int/doc/meetings/mar/soiom-2014-02/official/soiom-2014-02-actionplan-en.pdf](http://www.cbd.int/doc/meetings/mar/soiom-2014-02/official/soiom-2014-02-actionplan-en.pdf)>.

<sup>129</sup> “Preparations for the Post-2020 Biodiversity Framework”, online: *CBD* <[www.cbd.int/conferences/post2020](http://www.cbd.int/conferences/post2020)>; *CBD, Kunming-Montreal Global biodiversity framework*, CBD/COP/15/L.25 (2022).

<sup>130</sup> *CBD/COP/15/L.25, ibid* at 30.

traditional knowledge to be protected and appropriately utilized for conservation and sustainable use of biodiversity.

Twenty-three targets outline measures that require immediate action if the 2050 vision is to be achieved. Target 2 calls for restoration of at least 30 percent of degraded ecosystems by 2030; Target 3 commits states to protecting at least 30 percent of terrestrial and marine areas by 2030; Target 4 requires states to adopt urgent management actions to “significantly reduce extinction risk”; and Target 5 calls for sustainable harvesting of wild species that minimizes impacts on non-target species and ecosystems applying the ecosystem approach. Actions towards other targets that address pollution, invasive species, and impacts of climate change and ocean acidification are also going to benefit marine species at risk.

It is encouraging to see this recognition of the need to take immediate action to protect threatened species through specific and, theoretically, measurable goals and targets. One of the key challenges will be ensuring that states follow up on their ambition.

### 2.2.2 The Convention on the Conservation of Migratory Species of Wild Animals

The Convention on the Conservation of Migratory Species of Wild Animals (CMS) is dedicated to species that cross jurisdictional boundaries on regular basis.<sup>131</sup> It has 132 parties, but with gaps in regional representation. For instance, there are no parties from North America, and there are few parties in Central America and Southeast Asia.<sup>132</sup> CMS uses an appendix structure

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<sup>131</sup> *Convention on the Conservation of Migratory Species of Wild Animals*, 23 June 1979, 1651 UNTS 333 (entered into force 1 November 1983) [CMS], art 1(a).

<sup>132</sup> “Parties and Range States”, online: CMS <[www.cms.int/en/parties-range-states](http://www.cms.int/en/parties-range-states)>.

to identify protected species and commitments that apply to them. The same species may be listed on both Appendices, if warranted.<sup>133</sup>

Endangered species are listed on Appendix I.<sup>134</sup> According to the Convention, “endangered” means “the migratory species is in danger of extinction throughout all or a significant portion of its range.”<sup>135</sup> This was subsequently clarified to mean “facing a very high risk of extinction in the wild in the near future.”<sup>136</sup> In order to secure an Appendix I listing, reliable evidence, including the best scientific evidence available, has to indicate that a species is endangered.<sup>137</sup> Proponents are encouraged to use the International Union for Conservation of Nature (IUCN) Red List assessments in their proposals with species assessed as Extinct in the Wild, Critically Endangered or Endangered qualifying for Appendix I listing.<sup>138</sup> Conversely, for a species to be delisted from Appendix I, reliable evidence has to show that the species is no longer endangered and the species is not likely to become endangered if Appendix I protections are removed.<sup>139</sup>

With respect to Appendix I species, the range states agree to prohibit “taking, hunting, fishing, capturing, harassing, deliberate killing, or attempting to engage in any such conduct,” subject to narrow exemptions.<sup>140</sup> There are also obligations related to habitat protection,

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<sup>133</sup> CMS, art 4(2).

<sup>134</sup> CMS, art 3(1).

<sup>135</sup> CMS, art 1(1)(e).

<sup>136</sup> CMS, *Guidelines for preparing and assessing proposals for the amendment of CMS appendices*, UNEP/CMS/Resolution 13.7 (2020) at para 1.

<sup>137</sup> CMS, art 3(2).

<sup>138</sup> UNEP/CMS/Resolution 13.7, *supra* note 136.

<sup>139</sup> CMS, art 3(3).

<sup>140</sup> CMS, art 3(5) and at 1.



minimizing obstacles to migration, and to the extent feasible and appropriate, elimination of endangering factors.<sup>141</sup>

Species on Appendix II have “an unfavourable conservation status” meaning that one of the following applies: the species is not maintaining itself as a viable component of its ecosystem, based on population dynamics data; the species range is being or likely to be reduced; there is insufficient habitat to maintain the species population; or the distribution and abundance of the species is below its historic coverage.<sup>142</sup> Furthermore, in order to qualify for Appendix II listing, there needs to be evidence that a species requires international agreements for its conservation and management.<sup>143</sup> Species that “have a conservation status which would significantly benefit from the international co-operation that could be achieved by an international agreement” are also eligible for Appendix II listing.<sup>144</sup> Thus, whether a species will benefit from international cooperation is the determinative factor for Appendix II listing.<sup>145</sup>

Obligations with respect to Appendix II species are found in the agreements that have been concluded for the benefit of these species by the range states. Range states do not need to be parties to the CMS to participate in the agreements.<sup>146</sup> Because these agreements are concluded under the auspice of the CMS, the Convention provides details of what these obligations should entail. For instance, agreements should include “measures based on sound ecological principles to control and manage the taking of the migratory species.”<sup>147</sup> To date, four binding agreements and seven memoranda of understanding have been negotiated for marine

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<sup>141</sup> CMS, art 3(4).

<sup>142</sup> CMS, art 1(1)(c) and 4(1).

<sup>143</sup> CMS, art 4(1).

<sup>144</sup> *Ibid.*

<sup>145</sup> Simon Lyster, “The Convention on the Conservation of Migratory Species of Wild Animals (The Bonn Convention)” (1989) 29 *Natural Resources J* 979.

<sup>146</sup> CMS, art 5(2).

<sup>147</sup> CMS at art 5(5)(j).

species. The majority of these instruments are dedicated to marine mammals.<sup>148</sup> The remaining documents cover marine turtles,<sup>149</sup> albatrosses and petrels,<sup>150</sup> and elasmobranchs.<sup>151</sup> Action plans have been developed for some of the species subject to these binding and non-binding agreements; some of these action plans have expired or not been updated for over ten years.<sup>152</sup>

Any Party can make a proposal, in the prescribed format, to list or delist a species at a Conference of the Parties.<sup>153</sup> The Scientific Council evaluates the merits of the proposals and makes recommendations to COP.<sup>154</sup> The Scientific Council consists of party-appointed experts as well as COP-appointed experts selected to fill thematic knowledge gaps.<sup>155</sup> Party-appointed experts participate in Council's work in their individual expert capacity.<sup>156</sup> Proposals are reviewed by the Taxonomic Working Groups, and the decisions are reported to the plenary.<sup>157</sup>

The Guidelines for Assessing Listing Proposals to Appendices I and II of the Convention rely extensively on the IUCN Red List Categories in determining whether a species should be

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<sup>148</sup> Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS); Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS); Agreement on the Conservation of Seals in the Wadden Sea; Memorandum of Understanding on the Conservation and Management of Dugongs (*Dugong dugon*) and their Habitats throughout their Range; Memorandum of Understanding concerning Conservation Measures for the Eastern Atlantic Populations of the Mediterranean Monk Seal (*Monachus monachus*); Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region; Memorandum of Understanding concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia.

<sup>149</sup> Memorandum of Understanding concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa; Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia (IOSEA Marine Turtles).

<sup>150</sup> *Agreement on the Conservation of Albatrosses and Petrels*, 19 June 2001, 2258 UNTS 257 (entered into force 1 February 2004).

<sup>151</sup> Memorandum of Understanding on the Conservation of Migratory Sharks.

<sup>152</sup> "Species Conservation Management Plans", ACCOBAMS <[accobams.org/species\\_/conservation-plans/](http://accobams.org/species_/conservation-plans/)> (2004 Conservation Plan for short-beaked common dolphins in the Mediterranean Sea; 2006 Conservation Plan for Black Sea Cetaceans); "Action Plans", ASCOBANS <[www.ascobans.org/en/documents/action-plans](http://www.ascobans.org/en/documents/action-plans)> (2009 Conservation Plan for Harbour Porpoises (*Phocoena phocoena* L.) in the North Sea).

<sup>153</sup> CMS, art 10(1) and 10(2); CMS, *Guidelines for preparing and assessing proposals for the amendment of CMS appendices*, UNEP/CMS/Resolution 13.7 (2020).

<sup>154</sup> CMS, art 8(5)(c); CMS, *Scientific Council*, UNEP/CMS/Resolution 12.4 (2017).

<sup>155</sup> UNEP/CMS/Resolution 12.4, *ibid*.

<sup>156</sup> *Ibid*.

<sup>157</sup> CMS, *Report of the 18<sup>th</sup> Meeting of Scientific Council of the Convention on the Conservation of Migratory Species of Animals*, UNEP/CMS/COP11/Inf.8, 11 (2014).

listed.<sup>158</sup> A species assessed as Extinct in the Wild, Critically Endangered or Endangered is eligible for consideration for listing in Appendix I and II. On the other hand, a species assessed as Vulnerable or Near Threatened is not usually eligible for Appendix I unless “substantive information” subsequent to the IUCN assessment indicates a declining conservation status and a benefit of Appendix I listing. Similarly, species that are Data Deficient are not eligible for Appendix I listing, unless there are exceptional circumstances. Otherwise, Data Deficient species may be listed on Appendix II if available information supports it. The Guidelines direct the assessors to apply the Red List principles and percentage changes in populations to the information that becomes available after the latest IUCN assessment when making their decisions. The Scientific Council may recommend to the parties research and coordination of research on migratory species, including their conservation status.<sup>159</sup>

Besides the IUCN assessments, the assessors are to weigh the benefits and risks of listing, as well as take into account existing measures in other multilateral fora, striving for coherence. Six-point criteria provide additional guidance for assessing proposals for Appendix II listings. Factors such as whether there are sufficient legal protections within range states and international fora are to be taken into account. In addition, the assessors are to evaluate how the inclusion on Appendix II will benefit the species, as well as the parties’ willingness to engage in development of an international agreement or a concerted action.

A two-thirds majority of those parties present and voting have to support a proposal for it to be adopted.<sup>160</sup> Historically, not all marine species proposals have been adopted. For example, in 1988, the Netherlands made a proposal to add eight species of cetaceans to Appendix II. This

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<sup>158</sup> UNEP/CMS/Resolution 13.7, *supra* note 136.

<sup>159</sup> CMS, art 8(5)(b).

<sup>160</sup> CMS, art 10.

proposal was rejected due to a potential overlap with the jurisdiction of the International Whaling Commission (IWC).<sup>161</sup> However, recently, the listing of marine species has been positive. In 2014, twenty-one elasmobranch species were proposed for listing on Appendices I and II.<sup>162</sup> All were recommended for inclusion by the Scientific Council, and all proposals were adopted at the COP by consensus.<sup>163</sup> At COP12, even parties opposed to the proposed listings did not want to block consensus.<sup>164</sup> The consensus streak came to an end at COP13 where a disagreement among the parties about the migratory nature of two shark species led to a vote on an amendment to a listing proposal.<sup>165</sup>

### 2.2.3 The Convention on International Trade in Endangered Species of Wild Fauna and Flora

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is one of the best known and well subscribed conservation treaties.<sup>166</sup> Its 183 parties have agreed to institute a permitting system to regulate cross-border trade in listed wildlife in order to preserve their populations in the wild.<sup>167</sup>

CITES operates on the basis of three Appendices which correspond to different degrees of threat and protection. Appendix I includes “all species threatened with extinction which are or

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<sup>161</sup> Alexander Gillespie, “Forum Shopping in International Environmental Law: The IWC, CITES, and the Management of Cetaceans” (2002) 33:1 Ocean Dev & Intl L 17.

<sup>162</sup> Julia M Lawson & Sonja V Fordham, *Sharks Ahead: Realizing the Potential of the Convention on Migratory Species to Conserve Elasmobranchs* (Washington, DC: The Ocean Foundation, 2017).

<sup>163</sup> CMS, *Report of the 18<sup>th</sup> Meeting of Scientific Council of the Convention on the Conservation of Migratory Species of Animals*, UNEP/CMS/COP11/Inf.8, 11 (2014); CMS, *Proceedings of the 11<sup>th</sup> Meeting of the Conference of the Parties* UNEP/CMS/COP11/Proceedings (2014).

<sup>164</sup> CMS, *Report of the 12<sup>th</sup> Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals* UNEP/CMS/COP12/REPORT (2017), para 591.

<sup>165</sup> CMS, *Report of the 13<sup>th</sup> Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals*, UNEP/CMS/COP13/Report (2020).

<sup>166</sup> *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, 3 March 1973, 993 UNTS 243 (entered into force 1 July 1975) [CITES].

<sup>167</sup> “What is CITES?” online: *CITES* <[cites.org/eng/disc/what.php](http://cites.org/eng/disc/what.php)>.

may be affected by trade.”<sup>168</sup> Trade is defined as “export, re-export, import and introduction from the sea.”<sup>169</sup> Provisions on the introduction from the sea apply when a listed species is taken on the high seas and landed in the same state as the flag state of the fishing vessel.<sup>170</sup>

The strictest trade restrictions are reserved for Appendix I species.<sup>171</sup> Appendix II covers species “which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation.”<sup>172</sup> This includes look-alike species as well.<sup>173</sup> Appendix III are for species that are subject to regulation in one party state, and where that state needs cooperation from other parties to control international trade.<sup>174</sup>

In order to be considered “threatened with extinction” for the purposes of Appendix I listing, a species needs to meet the biological criteria adopted by the parties which consider factors such as the size, distribution and trends in the wildlife population, as well as characteristics of the available habitat.<sup>175</sup> At the same time, the historical extent of population decline is acknowledged to be the primary criterion for determining Appendix I eligibility.<sup>176</sup> A narrower range of decline (5 – 20% of the baseline) is considered to be more appropriate for evaluating vulnerability of commercially exploited aquatic species compared to their terrestrial counterparts (5– 30%).<sup>177</sup> For Appendix II, the qualifying criteria examines whether regulation of trade is necessarily in order to prevent a species from becoming eligible for Appendix I listing in the near future or have its survival in the wild threatened by continued harvesting or other

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<sup>168</sup> CITES, art 2(1).

<sup>169</sup> CITES, art 1(c).

<sup>170</sup> CITES, art 1(3); CITES, *Introduction from the sea*, Resolution Conf 14.6 (Rev CoP16) (2013).

<sup>171</sup> CITES, art 2(1).

<sup>172</sup> CITES, art 2(2)(a).

<sup>173</sup> CITES, art 2(2)(b).

<sup>174</sup> CITES, art 2(3).

<sup>175</sup> CITES, *Criteria for amendment of Appendices I and II*, Conf 9.24 (Rev CoP17) (2016), Annex 1.

<sup>176</sup> *Ibid*, Annex 5.

<sup>177</sup> *Ibid*.

influences.<sup>178</sup> Although not explicitly mentioned in the criteria, the historical extent of decline, as well as the recent rate of decline are considered when evaluating eligibility for listing.<sup>179</sup> Parties are expected to follow the precautionary approach and act “in the best interest of the conservation of the species” when there is uncertainty either with regard to the status of a species or the impact of trade.<sup>180</sup>

Listing proposals are prepared by the parties; the Secretariat reviews these proposals and makes recommendations.<sup>181</sup> TRAFFIC, a well-established, non-governmental organization dedicated to wildlife trade, with input from IUCN, also reviews the proposals and makes recommendations.<sup>182</sup> Furthermore, for marine species, the Secretariat is directed to consult “intergovernmental bodies having a function in relation to those species” with the intent of obtaining data, ensuring coordination of conservation measures, and soliciting their view on the proposal.<sup>183</sup> CITES has a long history of cooperation with the IWC and a relatively recent Memorandum of Understanding with the Food and Agriculture Organization of the United Nations (FAO).<sup>184</sup>

Amendments to Appendices I and II are adopted by a two-thirds majority of parties present and voting on the listing proposals.<sup>185</sup> Commentators have noted that this process means that listing decisions are significantly influenced by the parties that have no direct interest in a

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<sup>178</sup> *Ibid*, Annex 2a.

<sup>179</sup> *Ibid*, Annex 5.

<sup>180</sup> *Ibid*, Annex 4.

<sup>181</sup> CITES, art 15(2)(b) and (c).

<sup>182</sup> “CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora”, online: *TRAFFIC* <[www.traffic.org/about-us/working-with-cites/](http://www.traffic.org/about-us/working-with-cites/)>; Kevin Cochrane, “Use and misuse of CITES as a management tool for commercially-exploited aquatic species” (2015) 59 *Marine Pol’y* 16.

<sup>183</sup> CITES, art 15(2)(b).

<sup>184</sup> Gillespie, *supra* note 161; “FAO-CITES Agreement Promotes Sustainable Fish Trade, Collaborative Relationship Formalized in MoU” (2006), online: *CITES* <[cites.org/eng/news/pr/2006/061003\\_mou\\_fao.shtml](http://cites.org/eng/news/pr/2006/061003_mou_fao.shtml)>.

<sup>185</sup> CITES, art 15(1)(b).

species and that are subject to intensive lobbying by various interest groups.<sup>186</sup> CITES has a history of intense debates of the listing proposals. In the marine realm, the following examples stand out. Between 1995 and 2000, Japan and Norway unsuccessfully engaged in repeated attempts to loosen the trade restrictions around certain whale species.<sup>187</sup> In 1997 and 2000, Cuba submitted a number of controversial proposals to allow limited trade in hawksbill sea turtles that would sanction its sale of stockpiled tortoiseshell to Japan.<sup>188</sup> These proposals were defeated by a narrow margin. Cuba appeared ready to continue its fight in 2002 by filing another proposal, but did not go any further.<sup>189</sup> Listing of “commercially-exploited aquatic species”, a term that implicitly excludes the charismatic marine species such as cetaceans and sea turtles, have also been very contentious.<sup>190</sup> Significant differences of opinion among parties with respect to the roles of CITES and international fisheries management bodies in preventing extinction and promoting sustainable use are at the center of the disagreement.<sup>191</sup>

The permitting system implemented under CITES works as follows. Parties to the Convention are required to designate a Management Authority and Scientific Authority.<sup>192</sup> These bodies are responsible for issuing trade permits based on the stated criteria. To obtain an export permit for an Appendix I species, it is necessary to demonstrate that (a) such export will not detrimental to the survival of the species; (b) the specimen was legally obtained; (c) any living

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<sup>186</sup> Cochrane, *supra* note 182.

<sup>187</sup> Bobbie Jo Kelso, “Ninth Meeting of the Conference of the Parties” (1995) 15:2 TRAFFIC Bulletin 63; J Gray, “Report of the Tenth Meeting of the Conference of the Parties to CITES” (1997) 17:1 TRAFFIC Bulletin No 1 5; TRAFFIC, “The 11<sup>th</sup> Meeting of the Conference of the Parties to CITES” (2000) 18:3 TRAFFIC Bulletin No. 3 97.

<sup>188</sup> Gray, *ibid*; TRAFFIC, *ibid*.

<sup>189</sup> David Godfrey, “Sea Turtle Conservancy Media Resources: Action Alert Archive” (2002), online: *Sea Turtle Conservancy* <[www.conserveturtles.org/cuba-trying-again-to-open-international-trade-of-endangered-hawksbill-turtle-shells/](http://www.conserveturtles.org/cuba-trying-again-to-open-international-trade-of-endangered-hawksbill-turtle-shells/)>.

<sup>190</sup> Cochrane, *supra* note 182; Amanda C J Vincent, “The role of CITES in the conservation of marine fishes subject to international trade” (2013), 15:4 Fish & Fisheries 563; Margaret A Young, *Trading Fish, Saving Fish: The Interaction between Regimes in International Law* (Cambridge: Cambridge University Press); Solène Guggisberg, *The Use of CITES for Commercially-exploited Fish Species* (New York: Springer International Publishing, 2016).

<sup>191</sup> Cochrane, *supra* note 182.

<sup>192</sup> CITES, art 9.

specimens will be handled in a safe and humane manner; and (d) an import permit has been received.<sup>193</sup> To receive an import permit, the Scientific and Management authorities need to be satisfied that (a) the import will be for purposes that are not detrimental to the survival of the species; (b) the recipient of a live specimen is adequately equipped to handle it; and (c) the specimen is not to be used for primarily commercial purposes.<sup>194</sup> The last condition practically precludes commercial trade across borders in Appendix I species. To receive an export permit for an Appendix II species, the same set of criteria needs to be met as for Appendix I, except for the last one – there is no requirement to obtain an import permit.<sup>195</sup> This allows international trade in Appendix II species within the limits set by the Scientific Authority of the exporting state. In cases of introduction from the sea, the Management Authority and/or the Scientific Authority of the state where the listed species is landed (state of introduction) have to issue an introduction from the sea certificate, based on criteria that vary depending on whether it is an Appendix I or Appendix II species.<sup>196</sup>

Non-commercial trade in Appendix I species and commercial trade in Appendix II species have to be at levels that “will not be detrimental to the survival of that species.”<sup>197</sup> The Scientific Authorities are tasked with conducting these non-detriment findings or NDFs based on the available scientific information regarding the species biology and life-history characteristics, species range, population status and trends, threats, patterns of harvest and mortality, as well existing and proposed management measures.<sup>198</sup> Whether the species “would be maintained throughout its range at a level consistent with its role in the ecosystem in which it occurs” should

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<sup>193</sup> CITES, art 3(2).

<sup>194</sup> CITES, art 3(3).

<sup>195</sup> CITES, art 4(2).

<sup>196</sup> CITES, art 3(5) and 4(6); Conf. 14.6 (Rev. CoP16), *supra* note 170.

<sup>197</sup> CITES, art 3(2)(a) and 4(2)(a).

<sup>198</sup> CITES, *Non-detriment findings*, Conf 16.7(Rev CoP17) (2016).



also be considered.<sup>199</sup> Although parties are encouraged to share their NDFs, only 13 NDFs and case studies on marine fishes are posted on the CITES website.<sup>200</sup>

A permit is required to export a species listed on Appendix III, but only when exporting from the state that listed the species.<sup>201</sup> These permits are granted when it is shown that the specimen has been legally obtained and if dealing with a live specimen, it will be handled in a safe and humane manner.<sup>202</sup> So far a species of sea cucumber (*Isostichopus fuscus*) and four species of red and pink corals (*Corallium sp.*) have been listed on Appendix III by Ecuador and China respectively.

## **2.3 Habitat protection conventions**

### 2.3.1 The Convention on Wetlands of International Importance especially as Waterfowl Habitat

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar) has 171 contracting parties.<sup>203</sup> Because its broad definition of “wetland” includes brackish and marine waters up to 6 metres at low tide, Ramsar contributes to the conservation of marine species at risk by protecting habitat.<sup>204</sup>

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<sup>199</sup> *Ibid* at para 1(a)(ii).

<sup>200</sup> “Non-detriment findings”, online: *CITES* <[cites.org/eng/prog/ndf/index.php](http://cites.org/eng/prog/ndf/index.php)>. In “Search existing reports” select Taxa – Fishes.

<sup>201</sup> CITES, art 5(2).

<sup>202</sup> *Ibid*.

<sup>203</sup> *Convention on Wetlands of International Importance Especially as Waterfowl Habitat*, 2 February 1971, 996 UNTS 245 (entered into force 21 December 1975) [Ramsar]; “About the Convention on Wetlands”, online: *Ramsar* <[www.ramsar.org/](http://www.ramsar.org/)>.

<sup>204</sup> Ramsar, art 1.

When joining the Convention, each party is required to designate at least one wetland to be included on the List of Wetlands of International Importance (“Ramsar List”).<sup>205</sup> Such wetlands need to be selected based on their “international significance in terms of ecology, botany, zoology, limnology or hydrology.”<sup>206</sup> Importance to waterfowl is given a special consideration.<sup>207</sup> Parties have two main obligations under the Ramsar Convention: (1) “promote conservation” of listed wetlands; and (2) promote, “as far as possible the wise use of wetlands in their territory.”<sup>208</sup> States are asked to promote the conservation of wetlands by establishing nature reserves on all wetlands regardless of whether they are listed and provide sufficient resources for their management.<sup>209</sup> At the same time, there is no obligation to designate listed sites as protected areas under national legislation.<sup>210</sup>

The Ramsar List vision focuses on conservation of biodiversity and maintenance of ecosystem benefits and services.<sup>211</sup> To help realize this vision, one of the objectives is to include on the Ramsar List wetlands that support threatened ecological communities or are critical to the survival of endemic species that have been assessed as threatened by the IUCN, have been listed on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora or any appendices of CMS, or that are protected under national legislation.<sup>212</sup>

The criteria for identifying wetlands of international importance are divided into two groups: Group A – sites containing representative, rare or unique wetland types; and Group B –

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<sup>205</sup> Ramsar, art 2(1).

<sup>206</sup> Ramsar, art 2(2).

<sup>207</sup> Ramsar, art 2(2).

<sup>208</sup> Ramsar, art 3(1).

<sup>209</sup> Ramsar, art 4(1).

<sup>210</sup> Ramsar, *Strategic Framework and Guidelines for the Future Development of the List of Wetlands of International Importance of the Convention on Wetlands (Ramsar, Iran, 1971) – 2012 Revision*, Resolution XI.8 Annex 2 (Rev COP13) (2018), para 74.

<sup>211</sup> *Ibid*, para 10.

<sup>212</sup> *Ibid*, para 17.

sites of international importance for conserving biodiversity.<sup>213</sup> Group B, Criterion 2 specifically applies to species at risk. It reads: “a wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.”<sup>214</sup> There are no quantitative thresholds or limits under this criterion, and parties are encouraged to rely on it even when population assessments are not available.<sup>215</sup> Wetlands important to regional biodiversity are included on the Ramsar List under Criterion 3, while those that support critical habitats can be added under Criterion 4.<sup>216</sup> Criteria 7 and 8 are also relevant to marine species at risk. Wetlands that contribute to biodiversity by supporting fish species can be listed under Criterion 6. The listing guidelines recommend that at least 10 percent of fish species be endemic, but this is not mandatory.<sup>217</sup> Wetlands that provide habitat to “internationally important fish stocks” qualify under Criterion 8.<sup>218</sup> Once the Secretariat confirms that a party’s listing proposal complies with the format and content requirements, the Secretary General approves the proposed listing.<sup>219</sup>

Parties are required to become informed about any ongoing or potential changes to the ecological character of a listed wetland due to “technological developments, pollution or other human interference” and notify the bureau of the Convention.<sup>220</sup> “Ecological character” has been defined as “the combination of the ecosystem components, processes and benefits/services that

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<sup>213</sup> *Ibid*, para 102.

<sup>214</sup> “The Ramsar Sites Criteria”, online (pdf): Ramsar <[www.ramsar.org/sites/default/files/documents/library/ramsarsites\\_criteria\\_eng.pdf](http://www.ramsar.org/sites/default/files/documents/library/ramsarsites_criteria_eng.pdf)>.

<sup>215</sup> Ramsar Resolution XI.8 Annex 2 (Rev. COP13), *supra* note 210, para 125.

<sup>216</sup> *Ibid*, para 149 and 162.

<sup>217</sup> *Ibid*, para 220.

<sup>218</sup> *Ibid*, para 235.

<sup>219</sup> *Ibid*, para 420.

<sup>220</sup> Ramsar, art 3(2).

characterise the wetland at a given point in time.”<sup>221</sup> The description of the wetland submitted for listing is to be used as the baseline for subsequent monitoring of the ecological character.<sup>222</sup>

For wetlands that are not included on the Ramsar List, parties are required to implement the concept of “wise use”. This concept has been explained as “the maintenance of their [wetlands] ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.”<sup>223</sup> It recognizes that human well-being and poverty alleviation depend on the maintenance of ecosystem benefits and services and encourages the parties to adopt land use decisions that balance environmental, economic, and social needs.<sup>224</sup>

Three resolutions adopted by the parties are relevant to the conservation of marine species at risk. The resolutions on sustainable use of fisheries resources and conservation and wise use of intertidal wetlands encourage parties to engage in sustainable use of these resources in line with the Convention.<sup>225</sup> The resolution on the conservation of coastal sea turtle habitats lists the existing Ramsar sites that support sea turtle habitats and encourages the parties to engage in the following activities:

- Monitor their sea turtle populations;
- Strengthen the conservation and management of the identified nesting and foraging sites, list them as Ramsar sites, and designate them as protected areas;

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<sup>221</sup> Ramsar Resolution XI.8 Annex 2 (Rev. COP13), *supra* note 210, para 32.

<sup>222</sup> *Ibid*, para 33.

<sup>223</sup> Ramsar, *A Conceptual Framework for the Wise Use of Wetlands and the Maintenance of their Ecological Character*, Resolution IX.1 (2005), Annex 1, para 22.

<sup>224</sup> *Ibid*, para 23.

<sup>225</sup> Ramsar, *The Ramsar Convention and Conservation, Production and Sustainable Use of Fisheries Resources*, Resolution IX.4 (2005); Ramsar, “Promoting the Conservation and Wise Use of Intertidal Wetlands and Ecologically-Associated Habitats,” Resolution XIII.20 (2018).

- Develop and implement management plans for these sites and integrate these plans with coastal zone management plans;
- Cooperate with other parties to protect habitats in networks;
- Reduce threats to nesting areas and develop best practices to guide “the interaction of humans and marine turtles” through communication, capacity building, participation and awareness;
- Promote wise use of these sites by working with local communities and other stakeholders to raise awareness of the importance to conserve sea turtles and their habitat and promote non-consumptive uses of sea turtles;
- Include sea turtle conservation actions in their Ramsar Site management plans; and
- Collaborate on research into the impacts of climate change on sea turtles and their habitats.<sup>226</sup>

The parties also asked the Ramsar Secretariat to work with the Inter-American Sea Turtle Convention, explained in chapter 1, and CMS to enhance sea turtle conservation in Ramsar sites.

### 2.3.2 The World Heritage Convention

Unlike Ramsar, which covers all wetlands, the World Heritage Convention (WHC) only applies to cultural and natural sites that have outstanding value to humanity and that are listed on the World Heritage List. One hundred and sixty-seven states are parties to the Convention; and

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<sup>226</sup> Ramsar, *The Enhanced Conservation of Coastal Marine Turtle Habitats and the Designation of Key Areas as Ramsar Sites*, Resolution XIII.24 (2018).

there are 213 natural sites listed on the World Heritage List, including areas that host threatened species.<sup>227</sup> Fifty sites on the List are marine areas.<sup>228</sup>

The Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage (the World Heritage Committee), consisting of elected representatives from 21 parties, is responsible for the implementation of the Convention.<sup>229</sup> It decides whether a site, nominated by a state, qualifies for inclusion on the World Heritage List, as well as whether a listed site should be included or removed from the List of World Heritage in Danger.<sup>230</sup> Decisions of the Committee are made by a two-thirds majority of its members present and voting.<sup>231</sup>

According to the wording of the WHC, natural heritage sites include “geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of Outstanding Universal Value from the point of view of science or conservation.”<sup>232</sup> The Operational Guidelines expand on this criterion for addition to the World Heritage List to include “the most important and significant natural habitats for in-situ conservation of biological diversity” in addition to the habitats of threatened species of OUV.<sup>233</sup> However, neither the Convention nor the Operational Guidelines clarify how the concept of OUV applies to threatened species. According to the Operational Guidelines, OUV means “cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all

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<sup>227</sup> *Convention for the Protection of the World Cultural and Natural Heritage*, 16 November 1972, 1037 UNTS 151 (entered into force 17 December 1975) [WHC]; “World Heritage List”, online: *UNESCO* <[whc.unesco.org/en/list/](http://whc.unesco.org/en/list/)>.

<sup>228</sup> “World Heritage Marine Program”, online: *UNESCO* <[whc.unesco.org/en/marine-programme/](http://whc.unesco.org/en/marine-programme/)>.

<sup>229</sup> WHC, art 8; “The World Heritage Committee”, online: *UNESCO* <[whc.unesco.org/en/committee/](http://whc.unesco.org/en/committee/)>.

<sup>230</sup> WHC, art 11(2) and 11(4).

<sup>231</sup> WHC, art 13(8).

<sup>232</sup> WHC, art 2.

<sup>233</sup> Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, “Operational Guidelines for the Implementation of the World Heritage Convention” (10 July 2019), online: *UNESCO* <[whc.unesco.org/en/guidelines/](http://whc.unesco.org/en/guidelines/)> [Operational Guidelines], para 77(x).

humanity.”<sup>234</sup> On one hand, some have argued that the World Heritage Committee has taken a position that all threatened species possess OUV since there are examples of lesser known species supporting inclusion on the World Heritage List.<sup>235</sup> On the other hand, others have argued that there is a tendency to rely on charismatic megafauna and flagship species, however defined, to justify inclusion on the World Heritage List, and an argument has been made that only species that are globally threatened should be considered to possess OUV for the purposes of the Convention.<sup>236</sup>

A Statement of OUV is adopted by the Committee when a property is added to the World Heritage List and is used as a baseline for protection and management of the property.<sup>237</sup> States are required to demonstrate “adequate long-term legislative, regulatory, institutional and/or traditional protection and management” to safeguard the stated OUV.<sup>238</sup> They also need to have “an effective” management system in place that includes planning, implementation, monitoring, evaluation and feedback, and that is participatory, accountable, and transparent.<sup>239</sup> Sustainable use of the site is not precluded under the WHC.<sup>240</sup>

The List of World Heritage in Danger, prescribed under the WHC, is meant to alert the international community to the dangers facing a listed property and support corrective action.<sup>241</sup>

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<sup>234</sup> *Ibid* at para 49.

<sup>235</sup> Michael Bowman, Peter Davies & Catherine Redgewell, *Lyster’s International Wildlife Law* 2nd ed (Cambridge: Cambridge University Press, 2010) at 467.

<sup>236</sup> Wendy Strahm, “World Heritage and the IUCN Red List” (April 2008), online (pdf): *World Heritage Review* <[whc.unesco.org/document/103195](http://whc.unesco.org/document/103195)>.

<sup>237</sup> Operational Guidelines, *supra* note 233, para 51.

<sup>238</sup> *Ibid*, para 97.

<sup>239</sup> *Ibid*, para 111.

<sup>240</sup> *Ibid*, para 119.

<sup>241</sup> WHC, art 11(4); “World Heritage in Danger”, online: *UNESCO* <[whc.unesco.org/en/158/](http://whc.unesco.org/en/158/)> [World Heritage in Danger].

In order to qualify for this list, a site needs to be threatened by “serious and specific dangers.”<sup>242</sup> These include “A serious decline in the population of the endangered species or the other species of Outstanding Universal Value for which the property was legally established to protect, either by natural factors such as disease or by human-made factors such as poaching.”<sup>243</sup> In response, the World Heritage Committee and the concerned state are supposed to develop a program of corrective measures aimed at restoring the site’s OUV and facilitate its removal from the List of World Heritage in Danger.<sup>244</sup> These measures are eligible for financing from the World Heritage Fund.<sup>245</sup>

## 2.4 Sustainable development instruments

The paradigm of sustainable development was formulated in the 1970s in order to conceptualize the relationship between economic growth, poverty and environmental protection.<sup>246</sup> Its most commonly used definition can be found in the Report of the World Commission on Environment and Development: Our Common Future (Brundtland Report) where the concept is described as the development that “meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>247</sup> Although the status of sustainable development as an emerging principle of international law has not been settled,<sup>248</sup>

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<sup>242</sup> WHC, art 11(4).

<sup>243</sup> Operational Guidelines, *supra* note 233, para. 180(a)(i).

<sup>244</sup> World Heritage in Danger, *supra* note 242.

<sup>245</sup> Operational Guidelines, *supra* note 233, para 189.

<sup>246</sup> Daniel Barstow Magraw & Lisa D Hawke, “Sustainable Development” in Daniel Bodansky, Jutta Brunnée & Ellen Hey, eds, *The Oxford Textbook of International Environmental Law* (New York: Oxford University Press, 2007) 613.

<sup>247</sup> “Report of the World Commission on Environment and Development: Our Common Future” (1987), online (pdf): [UN <sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>](http://UN<sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>) para 27.

<sup>248</sup> *Ibid.*



its normative influence on the behaviour of various state and non-state actors can be seen through the Sustainable Development Goals (SDGs), discussed later.<sup>249</sup>

The concept of sustainable development has been distilled into four core elements: (1) inter-generational equity; (2) intra-generational equity; (3) adequate environmental protection; and (4) integration of economic, social and environmental policies.<sup>250</sup> Only the last two elements are considered in this research project. Since exploitation, mainly fishing, is the top threat to marine species,<sup>251</sup> it makes sense to examine this concept in the fisheries context. Here, the elements of sustainable development have been translated into five objectives of food security; competitive and profitable fisheries; long-term sustainability of the resource; economic and social well-being of the fishery workforce; as well as health and integrity of the marine ecosystems.<sup>252</sup> Arguably these five objectives contribute to achieving the broader concept of food sovereignty as well.<sup>253</sup> It has been recognized that achievement of sustainable development requires the broadening of the fisheries management paradigm to meet the expanded mandate.<sup>254</sup> In its 2021 Declaration for Sustainable Fisheries and Aquaculture, the FAO Committee on

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<sup>248</sup> Carlos Alberto Ruggerio, “Sustainability and sustainable development: A review of principles and definitions” (2021), 786 *Science of the Total Environment* 147481; Malgosia Fitzmaurice, *Contemporary Issues in International Environmental Law* (Northampton: Edward Elgar, 2009) 67; Theodore Okonkwo, “Sustainable development and protection of endangered species fauna and flora in the wild in developing countries,” (2015) 4:11 *Intl J Dev & Sustainability* 1086.

<sup>249</sup> Ivano Alogna, “The Circulation of the Model of Sustainable Development: Tracing the Path in a Comparative Law Perspective” in Volker Mauerhofer, ed, *Legal Aspects of Sustainable Development Horizontal and Sectoral Policy Issues* (Springer eBooks, 2016) 16.

<sup>250</sup> *Ibid*; Magraw & Hawke, *supra* note 246.

<sup>251</sup> “Living Blue Planet Report: Species, habitats and human well-being” (2015), online: *WWF* <[www.worldwildlife.org/publications/living-blue-planet-report-2015](http://www.worldwildlife.org/publications/living-blue-planet-report-2015)> [Blue Planet]; IPBES, “The global assessment report on biodiversity and ecosystem services. Summary for policymakers” (2019), online (pdf): *IPBES* <[ipbes.net/sites/default/files/2020-02/ipbes\\_global\\_assessment\\_report\\_summary\\_for\\_policymakers\\_en.pdf](http://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf)> [IPBES].

<sup>252</sup> S.M. Garcia, D.J. Staples & J. Chesson, “The FAO guidelines for the development and use of indicators for sustainable development of marine capture fisheries and an Australian example of their application” (2000) 43 *Ocean & Coastal Management* 537.

<sup>253</sup> Marc Edelman *et al*, “Introduction: critical perspectives on food sovereignty” (2014) 41:6 *J Peasant Studies* 911.

<sup>254</sup> Garcia, Staples & Chesson, *supra* note 252; Susan Sigh-Renton, “Introduction to Sustainable Development Concept in Fisheries”, online: *FAO* <[www.fao.org/3/y4260e/y4260e0r.htm](http://www.fao.org/3/y4260e/y4260e0r.htm)>.

Fisheries promoted a suite of activities including strengthening the scientific basis for decision-making, promoting small-scale fisheries and women's access, advancing fair working conditions, and implementing multi-sectoral, ecosystem-based management approaches.<sup>255</sup>

The relationship between sustainable development and protection of species at risk in developing countries was explored by Okonkwo.<sup>256</sup> He explained that wild species were part of a safety net, especially for rural populations, in times of hardship. He pointed out that economic development aimed at alleviating poverty was the priority for developing countries. And that more effort was needed to integrate biodiversity concerns within larger macroeconomic decision-making frameworks.<sup>257</sup>

The RSP positions itself as an operational platform for implementation of sustainable development principles.<sup>258</sup> Much of the focus in the Regional Seas Strategic Directions 2022-2025 is on the environmental issues with sustainable production and consumption patterns, as well as sustainable and equitable management, use and trade of bioresources being the only targets with direct economic and social components.<sup>259</sup>

#### 2.4.1 Sustainable Development Goals

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<sup>255</sup> FAO Committee on Fisheries, "2021 COFI Declaration for Sustainable Fisheries and Aquaculture" COFI/2020/2.3.

<sup>256</sup> Okonkwo, *supra* note 248.

<sup>257</sup> *Ibid* at 1091 and 1102.

<sup>258</sup> "Regional Seas Partnerships for Sustainable Development" (2005), online: *UNEP* <[wedocs.unep.org/bitstream/handle/20.500.11822/13594/Regional%20Seas%20Partnerships%20for%20Sustainable%20Development.pdf?sequence=1&amp%3BisAllowed=>](http://wedocs.unep.org/bitstream/handle/20.500.11822/13594/Regional%20Seas%20Partnerships%20for%20Sustainable%20Development.pdf?sequence=1&amp%3BisAllowed=>)>.

<sup>259</sup> "Regional Seas Strategic Directions 2022-2025: Guiding the Regional Seas Towards Global Ocean-related Goals for the Period 2022-2025" (2021), online: *UNEP* <[wedocs.unep.org/handle/20.500.11822/36810](http://wedocs.unep.org/handle/20.500.11822/36810)>.

The seventeen SDGs were adopted by the United Nations General Assembly as part of the Transforming Our World: the 2030 Agenda for Sustainable Development.<sup>260</sup> Together with the 169 associated targets, the SDGs are intended to guide common actions by the governments, civil society, the private sector and the scientific community on social and economic development while maintaining environmental sustainability.<sup>261</sup> The Goals also seek to “realize the human rights of all” by integrating them across the three dimensions of sustainable development.<sup>262</sup> The fact that these Goals were agreed upon by 193 countries signals their strong global influence.<sup>263</sup>

At first glance it appears that the SDGs are organized using the traditional “3 pillars” approach, where economic, social and environmental concerns are treated as independent variables that are balanced against each other.<sup>264</sup> However, a closer analysis reveals that environmental concerns have been extensively incorporated throughout the SDGs and their targets signaling a shift towards an integrated approach.<sup>265</sup> The integration of the economic, social and environmental priorities is evident in SDG 14 – Life Below Water. Here target 14.2 directs state and non-state actors to protect marine and coastal ecosystems and manage them in a sustainable manner; target 14.4 calls for science-based fisheries management that can “restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics;” target 14.6 asks governments to prohibit

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<sup>260</sup> UNGA, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1 (2015).

<sup>261</sup> Laura Recuero Virto, “A preliminary assessment of the indicators for Sustainable Development Goal (SDG) 14 “Conserve and sustainably use the oceans, seas and marine resources for sustainable development” (2018) 98 *Marine Pol’y* 47.

<sup>262</sup> A/RES/70/1, *supra* note 260 at preamble.

<sup>263</sup> “Sustainability Development Goals Officially Adopted by 193 Countries”, online: *United Nations in China* <[www.un.org.cn/info/6/620.html](http://www.un.org.cn/info/6/620.html)>.

<sup>264</sup> Mark Elder & Simon Høiberg Olsen, “The Design of Environmental Priorities in the SDGs” (2019), 10 (Supplement 1) *Global Pol’y* 70.

<sup>265</sup> *Ibid.*

fisheries subsidies that contribute to overcapacity and overfishing; while target 14.b highlights the need to provide small-scale artisanal fishers with access to marine resources and markets. The well-publicized commitment in target 14.5 to conserve ten percent of coastal and marine areas is relevant to habitat protection and will be discussed later in this part. Only target 14.b dealing with access to marine resources and markets by small-scale artisanal fishers may be read as establishing a direct human rights objective.

It is disappointing that SDG 14 is silent with respect to marine species at risk, but not surprising. After all, SDG 14 is to “conserve and sustainably use the oceans, seas and marine resources for sustainable development” suggesting an emphasis on use. For commitments dealing with protection of threatened species, it is necessary to look at SDG 15 – Life On Land. Here, target 15.5 calls for “urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.” An index based on the IUCN Red List showing trends in overall extinction risk for species serves as the indicator for this Target.<sup>266</sup> According to the UN website, the world is falling short on achieving this target as over 31,000 species are threatened with extinction, representing 27 percent of over 116,000 that have been assessed by IUCN.<sup>267</sup> Other targets directly relevant to the conservation of threatened species are targets 15.7 and 15.c dealing with poaching matters and target 15.8 addressing the introduction and impact of invasive species. Target 11.4 aimed at strengthening the efforts to “protect and safeguard the world’s cultural and natural heritage” is also potentially relevant. However, given that SDG 11 is about making cities

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<sup>266</sup> UN, *Global indicator framework for Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development*, A/RES/71/313, E/CN.3/2018/2, E/CN.3/2019/2, E/CN.3/2020/2, E/CN.3/2021/2; “Red List Index”, online: *IUCN* <[www.iucnredlist.org/assessment/red-list-index](http://www.iucnredlist.org/assessment/red-list-index)>.

<sup>267</sup> “15- Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”, online: *UN Department of Economic and Social Affairs* <[sdgs.un.org/goals/goal15](http://sdgs.un.org/goals/goal15)>.

and human settlements inclusive, safe, resilient and sustainable, its application to marine species at risk may be out of context.

In adopting target 14.5 states agreed to conserve at least ten percent of coastal and marine areas. By 2019, 17 percent of waters under national jurisdiction were protected, exceeding the set goal.<sup>268</sup> This number is contested and according to the Protected Planet calculations, protected marine areas amounted only to about 8 percent.<sup>269</sup> The only qualifications contained in the target 14.5 stipulate that the conservation had to be “consistent with national and international law and based on the best available scientific information.” It is most likely that some of the protected areas contain habitat of endangered species, however it is impossible to tell to what extent.

#### 2.4.2 Ecosystem approaches

One of the key tools for the implementation of the SDGs are the ecosystem approaches. Ecosystem approaches to management of human activities took hold at the end of the 20<sup>th</sup> century in response to the environmental degradation under the traditional fragmented approach and in recognition of ecosystem unknowns and uncertainties.<sup>270</sup> The ensuing decades witnessed the development of varying perspectives trying to operationalize the concept of an ecosystem approach, including in international law, although an agreement on a common definition and interpretation remains elusive.<sup>271</sup> The Convention on Biological Diversity (CBD) is a leader in

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<sup>268</sup> “14 – Conserve and sustainably use the oceans, seas and marine resources for sustainable development – Progress and Info”, online: *UN Department of Economic and Social Affairs* <[sdgs.un.org/goals/goal14](https://sdgs.un.org/goals/goal14)>.

<sup>269</sup> “Discover the world’s protected and conserved areas” (June 2023), online: *Protected Planet* <[www.protectedplanet.net/en](https://www.protectedplanet.net/en)>.

<sup>270</sup> Richard O Brook, Ross Jones & Ross A Virginia, *Law and Ecology: The Rise of the Ecosystem Regime* (Aldershot, UK: Ashgate, 2002); R Edward Grumbine, “What Is Ecosystem Management?” (1994) 8:1 *Conservation Biology* 27.

<sup>271</sup> Sarah Ryan Enright & Ben Boteler, “The Ecosystem Approach in International Marine Environmental Law and Governance” in Timothy G. O’Higgins, Manuel Lago & Theodore H. DeWitt, eds., *Ecosystem-Based Management, Ecosystem Services and Aquatic Biodiversity: Theory, Tools and Applications* (Open access: Springer, 2020) 333;

promoting an ecosystem approach, recognizing it as the primary framework for implementation of the convention's objectives and adopting a set of guidelines and principles.<sup>272</sup> According to the CBD, an ecosystem approach is “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.”<sup>273</sup> It needs to be science-based, apply adaptive management, be precautionary, and recognize that humans are part of ecosystems.<sup>274</sup> It also allows for adoption of other management or conservation approaches such as protected areas and single-species programs.<sup>275</sup> Parties to species-specific conventions, namely the Convention on Migratory Species (CMS) and the Convention on International Trade in Endangered Species (CITES), recognized that the majority of them are also parties to the CBD, and embraced the CBD ecosystem approach as part of their obligations.<sup>276</sup>

The FAO has adopted the Ecosystem Approach to Fisheries to guide the transition towards a more holistic management paradigm that incorporates ecosystem considerations such as habitat protection, biodiversity conservation, and pollution reduction.<sup>277</sup> Its purpose was described as “to plan, develop and manage fisheries in a manner that addresses the multiplicity of societal needs and desires, without jeopardizing the options for future generations to benefit from

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Vito De Lucia, “Competing Narratives and Complex Genealogies: The Ecosystem Approach in International Environmental Law” (2015) 27 J Env L 91; Cecilia Engler, “Beyond Rhetoric: Navigating the Conceptual Tangle Towards Effective Implementation of the Ecosystem Approach to Oceans Management” (2015) 23 Env Rev 288.  
<sup>272</sup> *Preliminary Consideration of Components of Biological Diversity Particularly under Threat and Action which Could be Taken Under the Convention*, Decision II/8, UNEP/CBD/COP/2/19 (1995); *Ecosystem Approach*, UNEP/CBD/COP/DEC/VII/11 (2004); UNEP/CBD/COP/5/23, *supra* note 113.

<sup>273</sup> Decision V/6, UNEP/CBD/COP/5/23, *ibid*, Annex at para. 1.

<sup>274</sup> *Ibid*, para 2-5.

<sup>275</sup> *Ibid*, para. 5.

<sup>276</sup> CITES, *Sustainable Use of Biodiversity: Addis Ababa Principles and Guidelines*, Resolution Conf 13.2 (2007); CMS, *Guidelines on the Integration of Migratory Species into National Biodiversity Strategies and Action Plans (NBSAPs) and Other Outcomes from CBD COP10*, UNEP/CMS/Resolution 10.18 (2011).

<sup>277</sup> S M Garcia *et al*, “The Ecosystem Approach to Fisheries: Issues, Terminology, Principles, Institutional Foundations, Implementation and Outlook” (2003), online (pdf): *FAO* <[ftp.fao.org/docrep/fao/006/y4773e/y4773e00.pdf](ftp://ftp.fao.org/docrep/fao/006/y4773e/y4773e00.pdf)>.

a full range of goods and services provided by marine ecosystems.”<sup>278</sup> The concept of the Ecosystem Approach to Fisheries has been predominantly operationalized in soft-law instruments, such as the FAO Code of Conduct for Responsible Fisheries, although at least one regional fisheries management organization has referenced the approach in its convention.<sup>279</sup> Protection of endangered species is recognized as being consistent with the Ecosystem Approach to Fisheries.<sup>280</sup>

Within UNEP, an ecosystem approach is defined as “a strategy for the integrated management of land, water and living resources that provides sustainable delivery of ecosystem services in an equitable manner.”<sup>281</sup> UNEP has developed a six-step plan to guide the RSPs in their implementation of the Ecosystem Approach to Regional Seas which involves (1) defining the geographical scope of marine ecosystems within a Programme; (2) assessing ecosystem quality, functions, services, and threats; (3) establishing a monitoring system of the ecosystem quality and functions; (4) agreeing on a set of ecosystem objectives and targets; (5) revising the regional seas Action Plan, if needed; and (6) implementing and monitoring the revised Action Plan.<sup>282</sup> The adoption of this approach varies within RSPs. In the Mediterranean, parties have adopted the Ecosystem Approach and a plan of implementation in 2008.<sup>283</sup> They have set strategic goals and ecological objectives and are currently reviewing the Integrated Monitoring and Assessment Programme.<sup>284</sup> In the Caribbean, the implementation of the Ecosystem

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<sup>278</sup> *Ibid* at 6.

<sup>279</sup> *Ibid*; See Convention on Cooperation in the Northwest Atlantic Fisheries at [www.nafo.int/Portals/0/PDFs/key-publications/NAFOConvention.pdf](http://www.nafo.int/Portals/0/PDFs/key-publications/NAFOConvention.pdf)

<sup>280</sup> Garcia *et al*, *supra* note 277.

<sup>281</sup> UNEP, *Ecosystem Approach to Regional Seas*, UNEP/EARS/WG.1/INF3 (2014) at para. 8.

<sup>282</sup> *Ibid*.

<sup>283</sup> “The Ecosystem Approach (EcAp)”, online: *SPA/RAC* <[www.rac-spa.org/ecap](http://www.rac-spa.org/ecap)>.

<sup>284</sup> *Ibid*.

Approach was limited to a pilot study, while in West and Central Africa ecosystem assessment is one of the areas of work, but there is no explicit mention of the Ecosystem Approach.<sup>285</sup>

## 2.5 Discussion

This review shows that marine species at risk are subject to a mosaic of international frameworks. Techera describes it being horizontally fragmented along environmental and resource management lines.<sup>286</sup>

“Threatened” and “endangered” are the commonly used terms to describe species at risk, although quite often they are not defined. A few of the reviewed instruments explicitly rely on the IUCN Red List assessments to identify species that fall into these categories, but other considerations are also often at play when determining whether protection is granted. Fisheries managers reject the application of the IUCN assessment criteria to commercially exploited stocks relying instead on biomass reference points.<sup>287</sup> These differences arguably contribute to the difficulties of implementation because resources need to be spent on agreement over which species require help and how much. Because fishing is the number one threat to marine species at risk, it is desirable to have a common understanding between fisheries management bodies and bodies constituted by conservation conventions on what species should be priorities for protection and management measures.

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<sup>285</sup> “Ecosystem-based Management and the application of a Decision Support System in the Wider Caribbean: Lessons learnt from EBM Application in the Wider Caribbean: concept to action” (2019), online (pdf): *Caribbean Environment Programme* <[gefcrew.org/carrcu/EBM\\_FRpt\\_Annex/All\\_lesson\\_learnt\\_EN.pdf](http://gefcrew.org/carrcu/EBM_FRpt_Annex/All_lesson_learnt_EN.pdf)>; “West and Central Africa”, online: *UNEP* <[www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/west-and?\\_ga=2.89929307.1955347665.1633465783-1040724952.1618396577](http://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/west-and?_ga=2.89929307.1955347665.1633465783-1040724952.1618396577)>.

<sup>286</sup> Erika J Techera & Natalie Klein, “Fragmented governance: Reconciling legal strategies for shark conservation and management” (2011) 35 *Marine Pol’y* 73.

<sup>287</sup> Sarah Millar & Mark Dickey-Collas, “Report on IUCN assessments and fisheries management approaches” (2018) ICES Advisory Committee, ICES CM 2018/ACOM:60.



Some of the key instruments dealing with species at risk rely on the single-species conservation approach. “Single-species conservation” refers to legal tools targeting specific species.<sup>288</sup> According to Techera, there are three categories of direct tools: (1) tools that target species most at risk; (2) tools for management of migratory species; and (3) tools for regulating damaging activities such as fisheries and trade.<sup>289</sup> According to Techera, these direct tools are limited to listing of identified species and licensing of threatening activities. She classifies the use of protected areas, closed seasons and restrictions on harvesting as indirect tools.

In her article “The Making of Global Environmental Norms: Endangered Species Protection”<sup>290</sup>, Epstein criticizes the single-species approach.<sup>291</sup> She argues that once a species is categorized as “endangered,” protecting it becomes the only acceptable policy response, or the “norm,” at the expense of exploitation needs of local communities. She queries “whether the norm has not somehow curtailed the evolution of environmental practice, notably in the development of ecosystem approaches.”<sup>292</sup> Arguably this approach is shortsighted because unsustainable exploitation is likely to lead to local extirpations of the species with dire consequences for the communities that rely on them for survival.

Houck, on the other hand, is a supporter of the single-species approach.<sup>293</sup> He argues that although preserving ecosystems is necessary to preserve biodiversity, focusing on individual species forces decision-makers to make difficult decisions needed to accommodate species’

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<sup>288</sup> Erika J Techera, “Species-based conservation” in Elisa Morgera & Jona Razzaque, eds, *Biodiversity and Nature Protection Law* (Edward Elgar Publishing, Northampton, 2017) 97.

<sup>289</sup> *Ibid.*

<sup>290</sup> Charlotte Epstein, “The Making of Global Environmental Norms: Endangered Species Protection” (2006) 6:2 *Global Env Politics* 32.

<sup>291</sup> For a discussion of single-species conservation versus an ecosystem approach see Daniel Simberloff, “Flagships, Umbrellas, and Keystones: Is Single-Species Management Passé in the Landscape Era?” (1998) 83:3 *Biological Conservation* 247.

<sup>292</sup> Epstein, *supra* note 290 at 52.

<sup>293</sup> Houck, *supra* note 114.

needs. According to Houck, these decisions become less acute as the scale of management decisions increases making it more likely that species' needs are ignored. This project agrees with Houck and takes a position that species-specific measures are not inconsistent with ecosystem approaches. This position is supported by the CBD, where species-specific provisions are included within the concepts of ecosystem approaches and adaptive management.<sup>294</sup>

Looking at the nature of state commitments, both CBD and SDGs contain broad obligations to protect and recover threatened species. This approach has the advantage of being comprehensive and devoid of scientific and political difficulties involved in listing species. The downside is the lack of specificity in the expected state actions. The CBD does mention the need to develop and implement management plans as well as protective legislation with the view of promoting recovery but leaves it to the parties to work out the details. Both CMS and CITES take the opposite approach. They outline detailed obligations that parties are expected to implement, but their scope of application is limited to migratory species and species that are affected by international trade. Substantial resources are also exerted to prepare listing proposals and solicit the requisite support among the parties.

A look at the impact of the two approaches on state behaviour shows deficiencies. Neither appears to make a substantial difference in the conservation status of threatened species. Even based on self-assessment, 22 percent of CBD parties report insufficient progress towards Aichi target 12 aimed at reversing declines of threatened species.<sup>295</sup> However, this number is likely higher because the majority of countries, 57 percent, failed to report their progress. Similarly, SDG target 15.5 is also going to be missed based on the data compiled in the IUCN

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<sup>294</sup> Techera, *supra* note 288; UNEP/CBD/COP/5/23, *supra* note 113 at para A.1.

<sup>295</sup> "Aichi Target 12", online: *CBD* <[www.cbd.int/aichi-targets/target/12](http://www.cbd.int/aichi-targets/target/12)>.

Red List index. Switching to CMS, a study that looked at the effect of listing of elasmobranch species on Appendix I prior to 2017 found that only 28 percent of parties complied with their obligations to enact strict protections.<sup>296</sup> An additional 33 percent had protections in place for some but not all Appendix I elasmobranchs or had inadequate protections. The parties adopted an implementation review mechanism at COP12 in 2017 which is ongoing.<sup>297</sup> There are indications that CITES listings have had positive effects on the regulation of trade in marine species, however gaps and challenges in assessment and implementation remain.<sup>298</sup>

The review also shows that the instruments take different positions with respect to the utilization of species at risk. The CMS takes the strongest position prohibiting all use of Appendix I species, subject to narrow exemptions. On the other hand, the obligations under UNCLOS and UNFSA do not prohibit exploitation of commercially important species at risk, leaving it to the states to agree on the precautionary limits on harvesting. Marine mammals are the exception since states are allowed to prohibit or otherwise limit their exploitation. The fact that threatened species are targeted in commercial fisheries is supported by the statistics compiled by the FAO which show that 17 percent of the world's monitored fish stocks are overexploited, while seven percent are depleted.<sup>299</sup> Both Ramsar and WHC also do not prohibit use of species at risk within listed sites, as long as this use does not change the character of these areas. Because CITES only applies to international trade, its listing does not affect domestic use.

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<sup>296</sup> Lawson & Fordham, *supra* note 162.

<sup>297</sup> CMS, *Establishment of Review Mechanism and a National Legislation Programme*, UNEP/CMS/Resolution 12.9 (2017).

<sup>298</sup> Phaedra Doukakis *et al*, "Testing the Effectiveness of an International Conservation Agreement: Marketplace Forensics and CITES Caviar Trade Regulation" (2012) 7:7 PLoS ONE e40907; Kim Friedman *et al*, "Examining the impact of CITES listing of sharks and rays in Southeast Asian fisheries" (2018), 19:4 Fish & Fisheries 662; Ting-Chun Kuo & Amanda Vincent, "Assessing the changes in international trade of marine fishes under CITES regulations – A case study of seahorses" (2018) 88 Marine Pol'y 48.

<sup>299</sup> "General situation of world fish stocks", online (pdf): *FAO* <[www.fao.org/newsroom/common/ecg/1000505/en/stocks.pdf](http://www.fao.org/newsroom/common/ecg/1000505/en/stocks.pdf)>.

Finally, the reviewed mosaic of international frameworks creates opportunities for conflicting obligations. There are species that have been listed on CMS Appendices I and II (for example, white shark, whale shark, and basking shark), while also being listed on CITES Appendix II. The fact that CMS and CITES have 132 and 183 state parties, respectively, shows overlap in participation. It is difficult to envision how strict protection for CMS Appendix I species is compatible with regulated trade in CITES Appendix II species.<sup>300</sup> These types of inconsistencies may be unavoidable for the time being given the shown fragmentation in international law obligations related to marine species at risk.

Subsequent chapters will show that implementation of species at risk protections through RSPs face similar issues to the ones described above.

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<sup>300</sup> For a broader discussion of conflicting obligations in international environmental law see Fariborz Zelli, “Regime Conflicts and Their Management in Global Environmental Governance” in Sebastian Oberthür & Olav Schram Stokke, eds, *Managing Institutional Complexity: Regime Interplay and Global Environmental Change* (Ebook: The MIT Press, 2011) 199.

## CHAPTER 3

### Overview of the Regional Seas Programme and Literature Review

Previous chapters described the mosaic of legal instruments that apply to marine species at risk. The current chapter introduces the United Nations Environment Programme (UNEP) and its Regional Seas Programme (RSP) which are meant to promote and coordinate the implementation of global obligations at the regional levels. The UNEP's RSP consists of 18 individual RSPs spanning the globe and bringing together 143 countries in regional collaboration.<sup>1</sup> Seven of these programmes are administered by UNEP;<sup>2</sup> seven have been established under the auspices of UNEP but are managed by regional hosts;<sup>3</sup> and four programmes have been established without UNEP's involvement.<sup>4</sup> This chapter reflects on the history of UNEP and RSPs and concludes with a review of the academic literature on this subject. It will provide context needed to appreciate the strengths and weaknesses of the RSP to protect and recover marine species at risk.

#### 3.1 UN Environment Programme

The UN Environment Programme was established by the United Nations General Assembly (UNGA) in 1972 as a way to implement the environmental action plan adopted at the

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<sup>1</sup> "What does working with regional seas matter?" online: *UNEP* <<https://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/why-does-working-regional-seas-matter>>.

<sup>2</sup> "UN Environment administered programmes", online: *UNEP* <[www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/un-environment](http://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/un-environment)>. These RSPs are the Caribbean Region, East Asian Seas, Eastern Africa Region, Mediterranean Region, North-West Pacific Region, Western Africa Region, and Caspian Sea.

<sup>3</sup> "Non-UN Environment administered programmes", online: *UNEP* <[www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/non-un](http://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/non-un)>. These RSPs are the Black Sea Region, North-East Pacific Region, Red Sea and Gulf of Aden, ROMPE Sea Area (Persian Gulf), South Asian Seas, South-East Pacific Region, and Pacific Region.

<sup>4</sup> "Independent Regional Seas Programmes", online: *UNEP* <[www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/independent](http://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/independent)>. These RSPs are the Arctic Region, Antarctic Region, Baltic Sea, and North-East Atlantic Region.

Stockholm Conference.<sup>5</sup> Its objective was to act “as a focal point for environmental action and coordination within the United Nations system.”<sup>6</sup> At this time, several specialized UN agencies were already working on environmental issues.<sup>7</sup> The Food and Agriculture Organization of the United Nations (FAO) is the most relevant agency to marine species at risk as its mandate includes fisheries management. The UNGA recognized these existing sectoral responsibilities in the preamble to the Resolution establishing UNEP.<sup>8</sup>

The UN Environment Programme is a subsidiary organ of the UNGA and not a specialized agency.<sup>9</sup> It reports annually to the UNGA through the Economic and Social Council.<sup>10</sup> At the time of its creation, developing countries were against any initiatives that would restrict their developmental aspirations, while developed nations were also not in favour of a strong environmental monitor.<sup>11</sup> Whether this confluence of factors led to a weak institution on purpose is debatable.<sup>12</sup> Nevertheless, subsequent assessment of UNEP’s effectiveness concluded that “it is merely a small, underfunded, and formally low-ranking player within this [UN] system”<sup>13</sup> despite playing a central role in international environmental governance. In the

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<sup>5</sup> UNGA, *Institutional and financial arrangements for international environmental co-operation*, Resolution 2997(XXVII) (1972); Bacon, TC, "The Role of the United Nations Environment Program (UNEP) in the Development of International Environmental Law" (1974) 12 Can YB Intl L 255.

<sup>6</sup> UNGA Resolution 2997(XXVII) *ibid*, at para II(1).

<sup>7</sup> These include Food and Agriculture Organisation (FAO), United Nations Educational, Scientific and Cultural Organisation (UNESCO), International Labour Organisation (ILO), World Bank (IBRD) World Health Organisation (WHO), World Meteorological Organisation (WMO), International Maritime Organisation (IMO) and International Atomic Energy Agency (IAEA). From Bharat H Desai, "UNEP: A Global Environmental Authority" (2006) 36:3-4 *Envtl Pol'y & L* 137.

<sup>8</sup> UNGA Resolution 2997(XXVII), *supra* note 5.

<sup>9</sup> Desai, *supra* note 7.

<sup>10</sup> UNGA Resolution 2997(XXVII), *supra* note 5, para 1(3).

<sup>11</sup> Desai, *supra* note 7; Maria Ivanova, *The Untold Story of the World's Leading Environmental Institution: UNEP at Fifty* (Ebook: The MIT Press, 2021).

<sup>12</sup> *Ibid*.

<sup>13</sup> Steffen Bauer, “The Secretariat of the United Nations Environment Programme: Tangled Up in Blue” in Frank Biermann & Bernd Siebenhüner, eds, *Managers of Global Change: The Influence of International Environmental Bureaucracies* (Ebook: The MIT Press, 2009) 169.

lead-up to the UN Conference on Sustainable Development (Rio+20), there were discussions about transforming UNEP into a specialized agency but these did not gain traction.<sup>14</sup>

From the very beginning the nature of UNEP's relationship with other specialized agencies was uncertain.<sup>15</sup> For instance, at the third session of the Governing Council, delegates were unsure whether UNEP's function in relation to other specialized agencies was limited to being consulted when advice was needed.<sup>16</sup> This is not surprising given that when UNEP was established, some specialized agencies were not in favour of a new organization for the environment.<sup>17</sup> Despite talks of cooperation, specialized bodies continued to pursue their activities for the marine environment "jealously defending its 'mandate' and guarding against 'encroachment' of others on its turf."<sup>18</sup> For example, it was not until 2019 that UNEP and FAO entered into a memorandum of understanding.<sup>19</sup> Similarly it was 2019 when UNEP formalized its relationship with the UN Office of the High Commissioner for Human Rights (OHCHR) through a memorandum of understanding.<sup>20</sup> The two organizations emphasized their commitment to advancing respect for human rights and fundamental freedoms through their mandates. For UNEP this means developing international environmental law using a rights-based approach.<sup>21</sup>

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<sup>14</sup> Maria Ivanova, "Institutional design and UNEP reform: historical insights on form function and financing" (2012) 88:3 Intl Affairs 565.

<sup>15</sup> UNGA, *UNEP Report of the Governing Council on the work of its third session held 17 April – 2 May 1975*, thirtieth session, supplement No. 25 (A/10025), para 36.

<sup>16</sup> *Ibid.*

<sup>17</sup> Desai, *supra* note 7.

<sup>18</sup> Laurence D Mee, "The Role of UNEP and UNDP in Multilateral Environmental Agreements" (2005) 5 Intl Env Agreements 227 at 242.

<sup>19</sup> "FAO, UN Environment deepen their partnership", online: *FAO* <[www.fao.org/news/story/en/item/1234683/icode/](http://www.fao.org/news/story/en/item/1234683/icode/)>.

<sup>20</sup> "Memorandum of Understanding Concerning Cooperation between the United Nations Environment Programme (UNEP) and the United Nations Office of the High Commissioner for Human Rights (OHCHR)", online: *UNEP* <[wedocs.unep.org/handle/20.500.11822/29758](http://wedocs.unep.org/handle/20.500.11822/29758)>.

<sup>21</sup> *Ibid.*

The UN Environment Programme was initially governed by the Governing Council composed of 58 members elected by the General Assembly to three-year terms.<sup>22</sup> In 2012, UNGA established universal membership in the Governing Council, implementing commitments made by the world leaders at the 2012 UN Conference on Sustainable Development.<sup>23</sup> The new body became known as the UN Environment Assembly.<sup>24</sup> The Committee of Permanent Representatives is responsible for the intersessional work of the Assembly.<sup>25</sup> This work is led by the Bureau.<sup>26</sup>

The UN Environment Programme's organizational structure is complex and somewhat opaque. It has seven substantive divisions, four sub-regional offices, six regional offices as well as four offices dedicated to specific functions such as governance affairs.<sup>27</sup> The directors of these divisions and offices are members of the organization's Senior Management Team, chaired by the Executive Director.<sup>28</sup> The Senior Management Team is tasked with executing the decisions of the UN Environment Assembly. UNEP also hosts several secretariats, including the secretariats of the RSPs.<sup>29</sup> The RSP is coordinated by the Oceans and Coastal Areas Programme

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<sup>22</sup> UNGA Resolution 2997(XXVII), *supra* note 5, art. 1.

<sup>23</sup> "United Nations Environment Programme Upgraded to Universal Membership Following Rio+20 Summit" (21 December 2012), online: *UNEP* <[www.unenvironment.org/news-and-stories/press-release/united-nations-environment-programme-upgraded-universal-membership](http://www.unenvironment.org/news-and-stories/press-release/united-nations-environment-programme-upgraded-universal-membership)>.

<sup>24</sup> "Meet the Secretariat of Governing Bodies" online: *UNEP* <[www.unenvironment.org/cpr/meet-secretariat-governing-bodies](http://www.unenvironment.org/cpr/meet-secretariat-governing-bodies)>.

<sup>25</sup> "The Committee of Permanent Representatives", online: *UNEP* <[www.unenvironment.org/cpr/committee-permanent-representatives](http://www.unenvironment.org/cpr/committee-permanent-representatives)>.

<sup>26</sup> *Ibid.*

<sup>27</sup> "Structure and Leadership", online: *UNEP* <[www.unenvironment.org/about-un-environment/why-does-un-environment-programme-matter/structure-and-leadership](http://www.unenvironment.org/about-un-environment/why-does-un-environment-programme-matter/structure-and-leadership)>.

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*



Activity Centre,<sup>30</sup> although how this Activity Centre fits within the overall institutional structure of UNEP is unclear.

The UN Environment Programme has a multidisciplinary and cross-sectoral mandate.<sup>31</sup> Key responsibilities include: promoting international cooperation in the field of the environment; coordinating the environmental programs within the UN; promoting acquisition, assessment, exchange, and implementation of scientific knowledge; and reviewing the impact of environmental policies and measures on developing countries.<sup>32</sup> There was some initial uncertainty about the extent of the UNEP's mandate to develop international environmental law because its constituent instrument is silent on this point.<sup>33</sup> Nevertheless, at the third session of the Governing Council, the need to give greater emphasis to UNEP's role in the field of law was broadly recognized.<sup>34</sup> UNEP has also been involved in capacity building, providing technical assistance to developing countries in the incorporation of environmental concerns into developmental planning.<sup>35</sup> The Governing Council characterized this role as helping countries in "reconciling the twin imperatives of dynamic development and environmental protection."<sup>36</sup> UNEP's priorities have always aligned with the United Nations development goals as they evolved over the decades.<sup>37</sup>

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<sup>30</sup> Roger D. Needham & Maureen Jedyneck-Copley "The United Nations Regional Seas Programme: General Guides and Principles" (1989) 14:2 *Can Water Resources J* 37.

<sup>31</sup> A/10025, *supra* note 15, see para 36.

<sup>32</sup> UNGA Resolution 2997(XXVII), *supra* note 5.

<sup>33</sup> Desai, *supra* note 7.

<sup>34</sup> A/10025, *supra* note 15, paras 266 to 275.

<sup>35</sup> "Capacity Building for Sustainable Development: An Overview of UNEP Environmental Capacity Initiatives" (2002), online: *UNEP* <[www.unenvironment.org/resources/report/capacity-building-sustainable-development-overview-unep-environmental-capacity](http://www.unenvironment.org/resources/report/capacity-building-sustainable-development-overview-unep-environmental-capacity)>.

<sup>36</sup> A/10025, *supra* note 15, para 71.

<sup>37</sup> UNGA, *UNEP Report of the Governing Council on the work of its second session* held on 11-22 March 1974, twenty-ninth session, supplement No. 25 (A/9625), para 56; "About the Sustainable Development Goals", online: *UNEP* <[www.unenvironment.org/explore-topics/sustainable-development-goals/about-sustainable-development-goals](http://www.unenvironment.org/explore-topics/sustainable-development-goals/about-sustainable-development-goals)>.

There are indications that concerns for species at risk were present at the time UNEP was in its initial stages of development. For example, at the third session of the Governing Council, delegates mentioned the importance of programs for endangered species in the context of terrestrial ecosystems.<sup>38</sup> There was also a proposal to study endangered species in the oceans, with a special reference to the disappearance of the Mediterranean monk seal (*Monachus monachus*).<sup>39</sup> However, the adopted decision only mentioned support for studying marine mammals.<sup>40</sup>

### 3.2 UNEP Regional Seas Programme

Like UNEP, the RSP has its beginning at the 1972 United Nations Conference on the Human Environment where delegates recognized the dangers facing the marine environment and the need to take action at the regional level.<sup>41</sup> Principle 7 of the Stockholm Declaration specifically called upon states to “take all possible steps to prevent pollution of the seas.” UNEP Governing Council at its second session held in 1974 acted upon this call by prioritizing the establishment of a regional environmental programme in the Mediterranean.<sup>42</sup> The need to protect other closed and semi-closed seas was also noted;<sup>43</sup> and the discussion around institutional models demonstrated the intention to establish additional programmes in other parts of the world.<sup>44</sup>

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<sup>38</sup> A/10025, *supra* note 15, para 142 and 147.

<sup>39</sup> *Ibid*, para 188.

<sup>40</sup> *Ibid*, Decisions 32(iii) and 33(iii).

<sup>41</sup> Stanley Johnson, “Mediterranean Action Plan – Regional Seas” in *UNEP The First 40 Years: A Narrative* (United Nations Environmental Programme, 2012) 57.

<sup>42</sup> A/9625, *supra* note 37, Decision 8(II) at para 4(b).

<sup>43</sup> *Ibid* at para 45.

<sup>44</sup> *Ibid*, paras 26 -27.

While hesitant to establish new administrative bodies, the Governing Council took a more active approach to the question of international environmental law. In this regard, the delegates adopted a decision calling on UNEP to “encourage and support the preparation of regional agreements or conventions on the protection of specific bodies of water from pollution, particularly from land-based sources. High priority should be given to supporting activities to protect living resources and prevent pollution in the Mediterranean.”<sup>45</sup> But, it was also acknowledged that, at this time, UNEP lacked the requisite knowledge and experience to advance the development of international environmental law and as a result, it was necessary to look at the existing regional convention for the protection of the Baltic Sea as an example.<sup>46</sup>

Bliss-Guest and Keckes and Needham and Jedyneck-Copley identified four elements that have come to exemplify RSPs. These are:

- 1) The promotion of international and regional conventions, guidelines and actions for the control of marine pollution and for the protection and management of aquatic resources;
- 2) The assessment of the state of marine pollution, of the sources and trend of this pollution, and of pollution impact on human health, marine ecosystems, and amenities;
- 3) The coordination of policies, programmes and projects related to the protection, regulation, conservation, development and management of marine and coastal resources; and

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<sup>45</sup> *Ibid*, Annex I, Decision 8(II) - Approval of activities within the environment programme, in the light, inter alia of their implications for the Fund programme at para 4(c).

<sup>46</sup> *Ibid*, paras 46 and 51.

- 4) The support for education and training exercises which facilitate the full participation of developing countries in the regional initiative.<sup>47</sup>

The importance of the RSP to environmental management was solidified at the 1992 UN Conference on Environment and Development. Here the global community adopted Agenda 21, a comprehensive action plan, intended to guide state initiatives into the 21<sup>st</sup> century. Chapter 17 is dedicated to the protection of oceans, seas, and coastal areas and to the protection, rational use, and development of their living resources. States are explicitly called upon to strengthen their regional cooperation and coordination, as well as strengthen and extend, where necessary, the RSP.<sup>48</sup>

Agenda 21 promoted the integration of environmental and developmental concerns.<sup>49</sup> At the same time, it recognized the need to protect and recover endangered species. This was to be done in cooperation with UN bodies and through regional cooperation and coordination, where appropriate.<sup>50</sup> Commitments with respect to conservation and sustainable use of marine species, including protection of endangered species apply to national waters, as well as the high seas, and extend to small island developing states.<sup>51</sup>

The call to strengthen regional cooperation and coordination through the RSP was repeated at the 2002 World Summit on Sustainable Development.<sup>52</sup> This time, endangered species were not mentioned specifically, but a series of commitments related to fisheries,

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<sup>47</sup> Patricia A. Bliss-Guest & Stjepan Keckes, “The Regional Seas Programme of UNEP” (1982) 9:1 Env Conservation 43 at 44; Needham & Jedyack-Copley, *supra* note 30 at 42.

<sup>48</sup> UN Sustainable Development, “United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992 – AGENDA 21”, online (pdf): *Sustainable Development Goals Knowledge Platform* <[sustainabledevelopment.un.org/content/documents/Agenda21.pdf](https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf)>, para 17.1(f) and 17.119(a).

<sup>49</sup> *Ibid*, para 1.1.

<sup>50</sup> *Ibid*, para 15.5(h) and 15.7(g).

<sup>51</sup> *Ibid*, para 17.7, 17.46(b) and (e), 17.74(c) and (e), 17.128(c).

<sup>52</sup> Plan of Implementation of the World Summit on Sustainable Development, para 30(f).

biodiversity, protected areas, pollution and science promoted indirectly beneficial actions.<sup>53</sup> Of note is paragraph 32(d) which encourages states to “develop national, regional and international programmes for halting the loss of marine biodiversity, including coral reefs and wetlands.”

Both Agenda 21 and the Plan of Implementation of the World Summit on Sustainable Development were influential in developing the RSP global strategy directing the programmes’ activities.<sup>54</sup> For instance, the UNEP Governing Council began encouraging the use of the regional seas conventions and action plans as instruments for sustainable development and as platforms for regional implementation of multilateral environmental agreements and global programs and initiatives.<sup>55</sup> Also, the first Regional Seas Strategic Directions were adopted at the Global Meeting of the Regional Seas Conventions and Action Plans focusing on, inter alia, increasing the Programme’s contribution to sustainable development and implementation of the multilateral environmental agreements, enhancing its visibility and national-level support, as well as promoting integrated management based on ecosystem approaches.<sup>56</sup>

Subsequent Strategic Directions (2008-2012, 2013-2016, 2017-2020 and 2022-2025) reiterated the use of the RSPs as mechanisms for sustainable development, the need to apply ecosystem approaches to the management of the marine and coastal environment, as well as the call for cooperation with Regional Fisheries Management Organizations.<sup>57</sup> It should be noted

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<sup>53</sup> *Ibid*, para 32 -34, 36

<sup>54</sup> Charles N Ehler, “A Global Strategic Review Regional Seas Programme” (2006), online: *ResearchGate* <[www.researchgate.net/publication/283225253\\_A\\_Global\\_Strategic\\_Review\\_Regional\\_Seas\\_Programme](http://www.researchgate.net/publication/283225253_A_Global_Strategic_Review_Regional_Seas_Programme)>.

<sup>55</sup> UNEP Governing Council, *Proceedings of the Governing Council/Global Environment Ministerial Forum at Its Twenty-Second Session* held on 21 February 2003, UNEP/GC.22/11 (2003), para III.A.1(a) and III.A.1(e).

<sup>56</sup> UNEP, *Regional Seas Strategic Directions for 2004-2007*, UNEP(DEPI)/RS.9/Inf. 3(2007).

<sup>57</sup> UNEP, *Regional Seas Strategic Directions 2008-2012*, UNEP(DEPI)/RS.11/INF.3.RS (2009); UNEP, *Regional Seas Strategic Directions 2013-2016*, NEP/WBRS.17/INF4 (2015); UNEP, *Regional Seas Strategic Directions (2017-2020)*, Regional Seas Reports and Studies No. 201 (2016); “Regional Seas Strategic Directions 2022-2025: Guiding the Regional Seas Towards Global Ocean-related Goals for the Period 2022-2025” (2021), online: *UNEP* <[wedocs.unep.org/handle/20.500.11822/36810](http://wedocs.unep.org/handle/20.500.11822/36810)>.

that the RSP was not mentioned in *The Future We Want*, the outcome document adopted at the 2012 UN Conference on Sustainable Development.<sup>58</sup>

At the outset of the RSP, there was a clear focus on pollution.<sup>59</sup> Nevertheless there are indicators that protection of species at risk was also a concern at that time. For example, at the second meeting of the Governing Council of UNEP, the participating states called on the Executive Director to pay particular attention to the protection of endangered flora and fauna, assist in the conservation of migratory species and others not covered by existing conventions, and encourage the ratification of CITES.<sup>60</sup> The need to establish and expand the network of marine parks, as well promote the study, conservation and wise management of living resources were also noted. According to Rochette and Billé, “the topics of regional protocols and actions have developed along lines paralleling global environmental protection”<sup>61</sup> starting with legal instruments to combat marine pollution and expanding to include biodiversity protection.

Today, RSPs rely on a variety of legal instruments to address biodiversity concerns within their regions. For example, in the Mediterranean and the Caribbean there are specific biodiversity protocols with detailed annexes of protected species.<sup>62</sup> In the South Pacific, article 14 of the Noumea Convention directs parties to “take all appropriate measures to protect and preserve rare or fragile ecosystems and depleted, threatened or endangered flora and fauna as

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<sup>58</sup> UNGA, *The Future We Want*, A/RES/66/288 (2012).

<sup>59</sup> Paul Akiwumi & Terttu Melvasalo, “UNEP’s Regional Seas Programme: approach, experience and future plans” (1998) 22: 3 *Marine Pol’y* 229; Julien Rochette & Raphaël Billé, “Bridging the Gap between Legal and Institutional Developments within Regional Seas Frameworks” (2013) 28:3 *Intl J Marine & Coastal L* 433.

<sup>60</sup> UNEP Governing Council, *Decision of the Governing Council of the United Nations Environment Programme at its second session*, Decision 8(II) (1974) at para 5(a).

<sup>61</sup> Rochette & Billé, *supra* note 59 at 438.

<sup>62</sup> *Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean*, 10 June 1995, 2102 UNTS 203 (entered into force 12 December 1999) and *Protocol Concerning Specially Protected Areas and Wildlife to the Cartagena Convention*, 18 January 1990, 2180 UNTS 101 (entered into force 18 June 2000).

well as their habitat in the Convention Area.”<sup>63</sup> And under the Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Region, endangered species are mentioned as one of the data points to be included in the regional database; and rebuilding the populations of ecologically and economically important species is encouraged.<sup>64</sup> This assortment of provisions dealing with endangered species protection makes RSPs interesting case studies for this project.

### 3.3 Establishment of the RSPs

Sparse information is available on the history of negotiations of the various RSPs. The first Programme was established in the Mediterranean in 1974 when states bordering the Sea adopted the Mediterranean Action Plan (MAP).<sup>65</sup> The objectives of the Plan included assessment and monitoring of marine pollution, assisting countries in formulation of their national environmental and sustainable development policies, as well as training and technical assistance to participating developing countries.<sup>66</sup> At the intergovernmental meeting that gave rise to MAP, countries asked UNEP to develop a framework convention and related protocols for the protection of the Mediterranean Sea.<sup>67</sup> In 1976, the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution and two pollution-related protocols were signed.<sup>68</sup> The

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<sup>63</sup> *1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region*, 24 November 1986, 26 ILM 38 (1987) (entered into force 22 August 1990).

<sup>64</sup> “The Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Seas Region”, online: *UNEP* <[www.unep.org/cobsea/resources/policy-and-strategy/action-plan-protection-and-development-marine-environment-and-coastal](http://www.unep.org/cobsea/resources/policy-and-strategy/action-plan-protection-and-development-marine-environment-and-coastal)>.

<sup>65</sup> Johnson, *supra* note 41.

<sup>66</sup> *Ibid.*

<sup>67</sup> *Ibid.*

<sup>68</sup> *Ibid.*

framework convention with protocols structure has served as a template in other RSPs.<sup>69</sup> The Barcelona Convention was subsequently amended in 1995 to reflect developments at the 1992 Rio Conference.<sup>70</sup> It was also renamed the Convention for the Protection of the Marine Environment and the Coastal Region to reflect the expanded scope of the instrument.<sup>71</sup> Five additional protocols have come into force over the years, bringing the total number of protocols under the Barcelona Convention to seven.<sup>72</sup> Relevant to this project is the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean which was adopted in 1995 and entered into force in 1999.<sup>73</sup>

According to Johnson, a UNEP historian, “The various Regional Seas initiative did not follow the same pathways.”<sup>74</sup> After explaining the history of MAP, Johnson turned his attention to the South Pacific Regional Environment Programme (SPREP). In this case, UNEP’s involvement in the establishment of the Programme was described as mixed since whether UNEP was helpful or not depended in large part on who was at the negotiation table.<sup>75</sup> Unlike the Mediterranean Programme, UNEP has never acted as the secretariat in the Pacific. Instead, the Pacific Community initially administered the secretariat and later on, SPREP took on these duties as an independent inter-governmental organization.<sup>76</sup> In terms of legal instruments, the 1976 Convention on the Conservation of Nature in the South Pacific came into force in 1990 and

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<sup>69</sup> PH Sand, “The rise of regional agreements for marine protection”, online: *ResearchGate* <[www.researchgate.net/publication/284486143\\_The\\_rise\\_of\\_regional\\_agreements\\_for\\_marine\\_environment\\_protection](http://www.researchgate.net/publication/284486143_The_rise_of_regional_agreements_for_marine_environment_protection)>.

<sup>70</sup> “Mediterranean Action Plan (MAP)”, online: *UNEP* <[www.unenvironment.org/unepmap/](http://www.unenvironment.org/unepmap/)>.

<sup>71</sup> *Ibid.*

<sup>72</sup> “Barcelona Convention and Protocols”, online: *UNEP* <[www.unenvironment.org/unepmap/who-we-are/barcelona-convention-and-protocols](http://www.unenvironment.org/unepmap/who-we-are/barcelona-convention-and-protocols)>.

<sup>73</sup> *Ibid.*

<sup>74</sup> Johnson, *supra* note 41 at 60. See also Peter S Thacher & Nikki Meith, “Approaches to Regional Marine Problems: A Progress Report on UNEP’s Regional Seas Program” (1980) 2 *Ocean YB* 153 for the beginnings of six RSPs.

<sup>75</sup> Johnson, *ibid.*

<sup>76</sup> “Our Governance”, online: *Secretariat of the Pacific Regional Environment Programme* <[www.sprep.org/governance](http://www.sprep.org/governance)>.



was suspended in 2006.<sup>77</sup> It was replaced by the 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (the Noumea Convention) which entered into force in 1990.<sup>78</sup> The Noumea Convention has two protocols on import and management of hazardous waste.<sup>79</sup>

Between 1976 and 1986, eight regional seas conventions were signed that subsequently entered into force.<sup>80</sup> These were all based on adopted regional action plans. According to Bliss-Guest and Keckes, both from UNEP, “Each regional action plan [was] formulated according to the needs of the region as perceived by the Governments concerned.”<sup>81</sup> Regional action plans were designed to link scientific assessment of the threats facing the marine environment with concrete actions for coastal and marine management and development.<sup>82</sup> In this regard, the RSPs were the first to offer a comprehensive management framework to tackle marine environmental problems.<sup>83</sup> For example, the Kuwait Action Plan, and the framework convention that was subsequently negotiated, focused on pollution, especially oil.<sup>84</sup> The Regional Organization for Protection of Marine Environment (ROMPE) was established in 1979, at the same time that the Convention was negotiated. UNEP convened the Kuwait Regional Conference of Plenipotentiaries on the Protection and Development of the Marine Environment and the Coastal

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<sup>77</sup> “Secretariat of the Pacific Environment Programme”, online: *UNEP* <[www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/pacific](http://www.unenvironment.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/pacific)>.

<sup>78</sup> *Ibid.*

<sup>79</sup> *Ibid.*

<sup>80</sup> Sand, *supra* note 69. Barcelona Convention (signed 1976, entered into force 1978); Kuwait Convention (signed 1978, entered into force 1979); Abidjan Convention (signed 1981, entered into force 1984); Lima Convention (signed 1981, entered into force 1986); Jeddah Convention (signed 1982, entered into force 1985); Cartagena Convention (signed 1983, entered into force 1985); Nairobi Convention (signed 1985, entered into force 1996); Noumea Convention (signed 1986, entered into force 1990).

<sup>81</sup> Bliss-Guest & Keckes, *supra* note 47 at 44.

<sup>82</sup> Akiwumi & Melvasalo, *supra* note 59.

<sup>83</sup> Needham & Jedynack-Copley, *supra* note 30.

<sup>84</sup> Thacher & Meith, *supra* note 74.

Areas, held in 1978.<sup>85</sup> At the meeting, the participants agreed to establish ROMPE to manage the action plan.<sup>86</sup>

In the Caribbean, UNEP worked with the Intergovernmental Oceanographic Commission (IOC) and the FAO to convene the 1976 workshop to review marine pollution problems in the region and identify projects aimed at understanding causes and consequences of these problems.<sup>87</sup> Together with the Economic Commission for Latin America, UNEP established a small coordinating project in Trinidad and Tobago to begin the preparations for the establishment of the Caribbean Environment Project (CEP) and produce a draft action plan.<sup>88</sup> CEP was established in 1981 and an action plan was adopted that same year.<sup>89</sup> In 1983, the Cartagena Convention or the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region was signed followed by three protocols on oil spills, land-based sources of pollution, and specially protected areas and wildlife.<sup>90</sup> UNEP administers the secretariat of the Cartagena Convention through the Caribbean Regional Coordinating Unit, established in 1986.<sup>91</sup>

Around 1989, four governments of the states bordering the semi-enclosed seas of the Northwest Pacific approached UNEP asking for assistance with the development of a regional action plan.<sup>92</sup> UNEP convened three consultative meetings of experts and national focal points to

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<sup>85</sup> *Ibid.*

<sup>86</sup> *Ibid.*

<sup>87</sup> *Ibid.*

<sup>88</sup> *Ibid.*

<sup>89</sup> The Caribbean Environment Programme and Cartagena Convention Secretariat: Protecting our Caribbean Sea and Sustaining our Future”, online: *UNEP* < [www.unenvironment.org/cep/](http://www.unenvironment.org/cep/)>.

<sup>90</sup> *Ibid.*

<sup>91</sup> *Ibid.*

<sup>92</sup> Philomene Verlaan, "UNEP" (1995) 10:3 *Int'l J Marine & Coastal L* 426.

discuss the scope and substance of the plan based on regional priorities.<sup>93</sup> The Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region (NOWPAP) was adopted in 1994. UNEP was designated as the interim organization responsible for the implementation of the Action Plan, until the Regional Coordinating Unit was established in 1999.<sup>94</sup>

The RSPs regions were selected and delimited based on political feasibility factors.<sup>95</sup> For example, at the time UNEP was created, it was not given a clear mandate to deal with Antarctic matters.<sup>96</sup> These were under the purview of the Antarctic Treaty System. UNEP attended its first Antarctic Treaty Consultative Meeting in 1994 but has not been otherwise integrated into the System.<sup>97</sup> Also in 1994, and again in 1996, UNEP assisted with the preparation of the Antarctic “State of the Environment” reports.<sup>98</sup> UNEP remains on the periphery in the Antarctic region as there is no memorandum of understanding between the two organizations.

There is no discernible pattern as to why some programmes retained UNEP as the secretariat, while other engaged an existing intergovernmental body in the region. Financial feasibility is one of the potential factors.<sup>99</sup> Some observers have noted that programmes that were administered by UNEP tended to view their regional arrangements as a step towards global

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<sup>93</sup> *Ibid.*

<sup>94</sup> UNEP, *First Intergovernmental Meeting on the Northwest Pacific Action Plan*, Report of the Meeting, UNEP(OCA)/NOWPAP IG.1/5 (1994); “Regional Coordinating Unit”, online: *Northwest Pacific Action Plan* <[www.unenvironment.org/nowpap/who-we-are/regional-coordinating-unit](http://www.unenvironment.org/nowpap/who-we-are/regional-coordinating-unit)>.

<sup>95</sup> Sand, *supra* note 69.

<sup>96</sup> Donald R Rothwell, "UNEP and the Antarctic Treaty System" (1999) 29:1 *Env'tl Pol'y & L* 17.

<sup>97</sup> *Ibid.*

<sup>98</sup> *Ibid.*

<sup>99</sup> Michael A Jacobson, “The United Nations’ Regional Seas Programme: How Does It Measure Up?” (1995) 23 *Coastal Management* 19.

cooperation.<sup>100</sup> The programmes that were outside the ambit of UNEP instead focused on regional concerns.<sup>101</sup> Furthermore, UNEP was seen as a strong supporter of binding legal agreements at the expense of other activities.<sup>102</sup> Kirkman, a former secretary of the Coordinating Body on the Seas of East Asia (COBSEA), opined: “UNEP headquarters in Nairobi offers poor leadership and has little interest in the regional activities apart from desiring a legally binding regional agreement.”<sup>103</sup>

Today, RSP shows legal and institutional diversity. Some programmes have framework conventions with protocols, while others administer action plans.<sup>104</sup> In addition to the secretariat, some RSPs have Regional Activity Centers (RACs) tasked with helping countries implement specific commitments.<sup>105</sup> This assortment of legal and institutional structures makes RSP an interesting case study for this project.

### **3.4 The RSP literature review**

Writing in 1989, Needham and Jedyack-Copley noted that “the contemporary literature contains only isolated and cursory reference to RSP existence.”<sup>106</sup> Not a lot has changed since that time. There has been one study done analyzing the effectiveness of the RSP in addressing pollution issues.<sup>107</sup> This study by Jacobson is discussed in chapter 4. Otherwise, the search of the literature on the RSP and RSPs reveals the following, organized into three categories.

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<sup>100</sup> Rochette & Billé, *supra* note 59.

<sup>101</sup> *Ibid.*

<sup>102</sup> Hugh Kirkman, “The East Asian Seas UNEP Regional Seas Programme” (2006) 6 Intl Env Agreements 305.

<sup>103</sup> *Ibid* at 312.

<sup>104</sup> Rochette & Billé, *supra* note 59.

<sup>105</sup> *Ibid.*

<sup>106</sup> Needham & Jedyack-Copley, *supra* note 30.

<sup>107</sup> Jacobson, *supra* note 99.

First, there is literature explaining the history and organization of the RSP.<sup>108</sup> A number of contributions stand out in this category. The most comprehensive review was written by Oral.<sup>109</sup> She examined the history of the RSP, the current structure, and thematic activities. Overall, Oral concluded that the RSP has been “a positive influence.”<sup>110</sup> However, she found an “uneven landscape of governance structures,”<sup>111</sup> which surprised her given UNEP’s objective of using the RSP as a vehicle for implementing global conventions and programs at the regional levels. She was also critical of UNEP’s reliance on workshops, studies, and projects to advance its medium-term strategies saying that these approaches were inadequate “to strengthen the overall governance framework for implementation of international and regional commitments.”<sup>112</sup> Finally, the absence of compliance mechanisms in all but one RSP was noted with concern.

Rochette and Billé in “Bridging the Gap between Legal and Institutional Developments within Regional Seas Frameworks”<sup>113</sup> delved into the legal and institutional structures of the RSPs. They described the institutional structures as “outdated” and noted that “the necessary assistance and support to States in implementing the legal agreements are hardly provided by the secretariats, which are almost fully focused on operational tasks.”<sup>114</sup> Nevertheless, the authors

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<sup>108</sup> Johnson, *supra* note 41; Bliss-Guest & Keckes, *supra* note 47; Akiwumi & Melvasalo, *supra* note 59.

<sup>109</sup> Nilufer Oral, “Forty years of the UNEP Regional Seas Programme: from past to future” in Rosemary Rayfuse, ed *Research Handbook on International Marine Environmental Law* (Northampton: Edward Elgar Publishing, 2015) 339.

<sup>110</sup> *Ibid* at 362.

<sup>111</sup> *Ibid* at 361.

<sup>112</sup> *Ibid* at 361.

<sup>113</sup> Rochette & Billé, *supra* note 59; Needham & Jedyneck-Copley, *supra* note 30.

<sup>114</sup> Rochette & Billé, *ibid* at 435.

found the RSP framework to be “flexible enough to allow continuous developments, whether they be legal...or institutional.”<sup>115</sup>

Verlaan and Khan examined the funding obligations adopted by different RSPs to see whether they were effective at providing reliable and adequate funding to protect a shared environment.<sup>116</sup> The review was limited to the funding agreements pertaining to the RSPs’ action plans and did not include the funding mechanisms of the regional seas conventions. The authors concluded that state compliance with their funding obligations was limited and none of the reviewed trust funds could be considered fully self-sufficient. The authors suggested tying financial obligations to the comparative costs and benefits associated with the environmental issues being addressed in order to address the perceived inequities in the apportionment mechanism.

Finally, Thacher and Meith reviewed in detail the process of establishing the first six RSPs from the initial consultations to the operational stages, where applicable.<sup>117</sup> The authors indicated that the choice of a regional strategy was a success with the emphasis on strengthening institutional capacity at the national level being one of the indirect benefits of the approach. Thacher and Meith noted the similarities in the programs in different parts of the world and concluded it was an “encouraging indication that, despite the variability of specific environmental problems, there exists a common ground for their solution which can help governments to cooperate in practical steps.”<sup>118</sup>

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<sup>115</sup> *Ibid* at 449.

<sup>116</sup> Philomène A Verlaan & Anbreen S Khan, “Paying to protect the commons: lessons from the Regional Seas Programme” (1996) 31:2-3 *Ocean & Coastal Management* 83.

<sup>117</sup> Thacher & Meith, *supra* note 74.

<sup>118</sup> *Ibid* at 182.

In the second category there is literature discussing individual RSPs along with their accomplishments and challenges.<sup>119</sup> Oral wrote a book on the regional mechanisms for the protection of the Black Sea, including the RSP.<sup>120</sup> She concluded that although important legal documents have been adopted since the Black Sea Regional Programme was established, ratification and implementation of these commitments have been slow. Poor adoption of legal obligations into national legislation was also noted by Akiwumi and Melvasalo.<sup>121</sup>

An interesting article by Sievers unpacked the importance of cultural elements in RSP's success by looking at Kazakhstan and Turkmenistan in the Caspian programme.<sup>122</sup> One of the cultural elements examined by Sievers was the engagement of non-governmental organizations (NGOs) in the two countries with environmental issues. He concluded that it was questionable whether the NGOs in the region had the capacity to fulfill the role traditionally assigned to the civil society in intergovernmental setting.

Three articles that fall in this category provide examples of biodiversity protection provisions in RSPs and are therefore especially relevant to this discussion. Both Freestone and Vanzella-Khoury looked at the Specially Protected Areas and Wildlife (SPAW) Protocol in the Wider Caribbean Region.<sup>123</sup> Freestone reviewed the history of the negotiations while Vanzella-Khoury took a broader look at the geopolitical complexity of the region, environmental problems

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<sup>119</sup> Kirkman, *supra* note 102; L Jetic, "The role of science in marine environmental protection of regional seas and their coastal areas: The experience of the Mediterranean action plan" (1992) 25:1 *Marine Pollution Bull* 66; Benedict Sheehy, "International Marine Environmental Law: A Case Study in the Wider Caribbean Region" (2004) 16:3 *Geo Intl Env L Rev* 441; Luis Bell, "Pacific Islands Region and CITES" (2012), 42:4-5 *Env Pol'y & L* 282.

<sup>120</sup> Nilufer Oral, *Regional Co-operation and Protection of the Marine Environment Under International Law: The Black Sea*. (Leiden: Martinus Nijhoff Publishers, 2013).

<sup>121</sup> Akiwumi & Melvasalo, *supra* note 59.

<sup>122</sup> Eric W. Sievers, "The Caspian, Regional Seas, and the Case for a Cultural Study of Law" (2000-2001) 13 *Geo Intl Env L Rev* 361.

<sup>123</sup> David Freestone, "Specially Protected Areas and Wildlife in the Caribbean – The 1990 Kingston Protocol to the Cartagena Convention" (1990), 5:2 *Intl J Estuarine & Coastal L* 362; Alessandra Vanzella-Khoury, "Implementation of the Protocol concerning Specially Protected Areas and Wildlife (SPAW) in the Wider Caribbean Region" (1998) 30:1 *U Miami Inter-Am L R* 53.

facing the Caribbean states as well as steps taken by the secretariat to implement the Protocol's provisions. Writing eight years after the Protocol came into force, Lausche highlighted the innovative concepts in biodiversity conservation that were incorporated into the instrument and detailed its contribution to environmental protection in the Wider Caribbean Region.<sup>124</sup>

Lastly, the third category contains literature where the RSP is described in the context of a review of environmental governance mechanisms.<sup>125</sup> Diz in "Marine biodiversity: unravelling the intricacies of global frameworks and applicable concepts" briefly explained these regional instruments and concluded that they have added value to the implementation of the global conventions such as CBD and UNCLOS.<sup>126</sup> A similar conclusion was reached by Bowman, Davies and Redgewell in their book on international wildlife law.<sup>127</sup> Mee used the RSP as a case study to examine UNEP's involvement in multilateral environmental agreements.<sup>128</sup> While not central to his analysis, Mee identified eight areas of concern that in his opinion contribute to the failure of the programme to achieve its full potential. These include the voluntary nature of funding, turf wars, especially with the FAO, and inability of the RSP to tackle fisheries and ecosystem management.

With respect to the protection of marine species at risk within the RSP or RSPs, research did not reveal any literature on this topic. In fact, biodiversity protection provisions within the

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<sup>124</sup> Barbara Lausche, "Wider Caribbean Region – A Pivotal Time to Strengthen Regional Instruments for Biodiversity Conservation" (2008) 23 Intl J Marine & Coastal L 499.

<sup>125</sup> Adalberto Vallega, The regional approach to the ocean, the ocean regions, and ocean regionalization— a post-modern dilemma" (2002) 45 Ocean & Coastal Management 721; Shih-Ming Kao, "Regional Cooperation in the Mediterranean and the Caribbean Seas: Lessons Learned and Possible Alternatives to the South China Sea Disputes" (2014) 42:3 Coastal Management 263; Julien Rochette *et al*, "Regional ocean governance mechanisms: A review" (2015) 60 Marine Pol'y 9.

<sup>126</sup> Daniela Diz, "Marine biodiversity: unravelling the intricacies of global frameworks and applicable concepts" in Elisa Morgera & Jona Razzaque, eds, *Biodiversity and Nature Protection Law* (Northampton, Massachusetts: Edward Elgar, 2017) 123.

<sup>127</sup> Michael Bowman, Peter Davies and Catherine Redgewell, *Lyster's International Wildlife Law* 2nd ed. (Cambridge: Cambridge University Press, 2010).

<sup>128</sup> Mee, *supra* note 18.



RSP received very scant attention, limited to the two articles describing the SPAW Protocol mentioned in this review. The issues around biodiversity or species at risk were not even addressed in the 2002 special issue of Ocean and Coastal Management titled “Regional Seas Facing the World Summit on Sustainable Development.” The lack of consideration for endangered species within the RSP continues to this day, evidenced by the absence of academic literature. This project aims to fill this gap.

## CHAPTER 4

### Defining and Evaluating Effectiveness

Previous chapters discussed the need for urgent and effective action to protect and recover marine species at risk. They also described the complex international legal frameworks that apply to these species from several angles. The UNEP's RSP is introduced as one of the mechanisms for the implementation of these obligations at regional levels. This chapter tackles the question of effectiveness and its evaluation, as well as describes the methodology used to evaluate the relative potential effectiveness of the four RSPs presented in chapter 5.

Evaluating effectiveness of a convention, governance system or a regime is notoriously difficult - there is no one agreed-upon way to do it.<sup>1</sup> Different approaches and definitions have been advanced based on the objectives of the studies. At the same time, understanding the degree to which agreements and institutions are achieving the desired results is necessary in order to learn and improve.

#### 4.1 Overview of defining and evaluating effectiveness

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<sup>1</sup> Arild Underdal, "Methods of Analysis" in Edward Miles *et al*, eds, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002) 47; W. Bradnee Chambers, "Towards an Improved Understanding of Legal Effectiveness of International Environmental Treaties" (2004) 16:3 *Geo Intl Env L Rev* 501; Oran R Young, "Effectiveness of international environmental regimes: Existing knowledge, cutting-edge themes, and research strategies" (2011) 108:50 *PNAS* 19853; Peter H Sand, "The Effectiveness of Multilateral Environmental Agreements: Theory and Practice" (2016), online: *ResearchGate* <[www.researchgate.net/publication/311717128\\_The\\_Effectiveness\\_of\\_Multilateral\\_Environmental\\_Agreements\\_Theory\\_and\\_Practice](http://www.researchgate.net/publication/311717128_The_Effectiveness_of_Multilateral_Environmental_Agreements_Theory_and_Practice)>.

Effectiveness can be looked at from different angles. Bodansky described three meanings of the term: legal effectiveness, behavioral effectiveness, and problem-solving effectiveness.<sup>2</sup> Legal effectiveness refers to the compliance with treaty obligations. Behavioral effectiveness looks at whether a treaty influences state and individual behavior towards achievement of the treaty's objectives. Problem-solving effectiveness looks at the extent a treaty solves the problem it was designed to address. Young and Levy divided effectiveness into five approaches.<sup>3</sup> According to the authors, the economic approach adds efficiency considerations to the legal approach. The normative approach evaluates the normative outcomes such as justice, fairness, and participation. Young and Levy's legal, political and problem-solving approaches are similar in their definition to Bodansky's legal, behavioral and problem-solving effectiveness. Jackson and Bührs divided effectiveness into institutional and ecological effectiveness.<sup>4</sup> According to the authors, institutional effectiveness is concerned with implementation and compliance, while ecological effectiveness evaluates the biophysical impacts of a regime. It is necessary to examine the definition of effectiveness used by an author in order to determine the type of effectiveness being studied.

Jacobson and Brown Weiss view effectiveness as an outcome of compliance and implementation.<sup>5</sup> According to the authors, "Learning about implementation and compliance is

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<sup>2</sup> Daniel Bodansky, *The Art and Craft of International Environmental Law* (Cambridge, Massachusetts: Harvard University Press, 2010) 252.

<sup>3</sup> Oran R Young & Marc A Levy, "The Effectiveness of International Environmental Regimes" in Oran R Young, ed, *The Effectiveness of International Environmental Regimes: Causal Connection and Behavioral Mechanisms* (Cambridge, Massachusetts: MIT Press, 1999) 1.

<sup>4</sup> Wendy Jackson & Ton Bührs, "International Environmental Regimes: Understanding Institutional and Ecological Effectiveness" (2015) 18:63 *J Intl Wildlife L & Pol'y* 63.

<sup>5</sup> Harold K Jacobson & Edith Brown Weiss "A Framework for Analysis" in Edith Brown Weiss & Harold K Jacobson, eds, *Engaging Countries: Strengthening Compliance with International Environmental Accords* (Cambridge: MIT Press, 1998) 1.

an essential first step to learning about effectiveness.”<sup>6</sup> Their definition of effectiveness breaks down the concept into two parts: effectiveness in achieving the stated objectives of the treaty and effectiveness in addressing the problems that led to the negotiation of the treaty in the first place. Despite providing a definition of effectiveness, the authors did not engage in its discussion and did not explore the relationship between compliance and implementation, on the one hand, and effectiveness on the other. Timothy Meyer disagrees with the emphasis on compliance, arguing that it has the potential to “understate” effectiveness of international law.<sup>7</sup> According to Meyer, non-compliance can be part of the process of negotiated lawmaking and lead to changes in state behavior over time. He argues that it is not correct to infer ineffectiveness from non-compliance. From Meyer’s perspective, an effective law is “a but-for cause of the state’s subsequent conduct.”<sup>8</sup> He does not elaborate on how to measure this causality. Young and Levy similarly support the position that compliance is not a precondition for effectiveness. They believe that “Activities that move the system in the right direction, even if they fall short of full compliance, are signs of effectiveness.”<sup>9</sup>

Given the variety of definitions and approaches to evaluating effectiveness, it should not be surprising that complexity of analysis varies between projects. Sand edited one of the earliest works on the effectiveness of international environmental agreements.<sup>10</sup> The study, part of the preparatory work for United Nations Conference on Environment and Development (UNCED), reviewed 124 environmental instruments based on 32 factors grouped into six categories: objectives and achievements; participation; implementation; information; operation; and

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<sup>6</sup> *Ibid* at 6.

<sup>7</sup> Timothy Meyer, “How Compliance Understates Effectiveness” (2014) 108 *Proceedings of the Annual Meeting (American Society of International Law)* 168.

<sup>8</sup> *Ibid* at 169.

<sup>9</sup> Young & Levy, *supra* note 3 at 6.

<sup>10</sup> Peter H Sand, ed, *The Effectiveness of International Environmental Agreements: A Survey of Existing Legal Instruments*. (Cambridge: Grotius Publications Limited, 1992).

codification programming. The authors described the answers to their queries, but did not offer any conclusions with respect to the effectiveness of the instruments they reviewed. They also did not define the term. This study adopted a simple descriptive methodology.

At the other end of the complexity spectrum is the empirical study conducted by Miles and his colleagues.<sup>11</sup> Here the authors defined effectiveness as the extent to which a regime “successfully performs a certain (set of) function(s) or solves the problem(s) that motivated its establishment.”<sup>12</sup> This definition was operationalized by two variables and six sub-variables: problem malignancy (incongruity, asymmetry, and cumulative cleavages) and problem-solving capacity (institutional setting, distribution of power, and instrumental leadership and epistemic communities). The resulting score was then placed on the spectrum with an absence of a regime at one end and an ideal regime at the other.<sup>13</sup> Upon review of 14 case studies, the authors concluded that these regimes “make a positive difference but fall short of providing functionally optimal solutions.”<sup>14</sup>

The performance of MAP was one of the case studies reviewed by Miles and colleagues, and it warrants a closer examination. Overall, it was described as “A collaborative success without much substantial behavioral impact,”<sup>15</sup> resulting in its ranking as an “ineffective regime”. A key factor contributing to the lack of behavioral change at the national level was the

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<sup>11</sup> Edward Miles *et al*, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002).

<sup>12</sup> Arild Underdal, “One Question, Two Answers” in Edward Miles *et al*, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002) 3 at 4.

<sup>13</sup> According to the authors, an ideal regime, described as the “collective optimum”, accomplishes for its members everything that can be accomplished.

<sup>14</sup> Arid Underdal, “Conclusions: Patterns of Regime Effectiveness” in Edward Miles *et al*, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002) 433 at 435.

<sup>15</sup> Jon Birger Skjærseth, “The Effectiveness of the Mediterranean Action Plan” in Edward Miles *et al*, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002) 311 at 311.

broad mandate of the Action Plan covering almost everything related to the environment and development with inadequate funding to back it up. Factors such as non-environmental motivations for participation in the programme, scientific findings that refuted the Mediterranean collapse hypothesis, and delays in parties' budget contributions also contributed to the poor performance. Nevertheless, UNEP was given credit for its legal, financial and scientific leadership in bringing together countries with divergent and conflicting interests and getting them to agree on a common set of commitments. Furthermore, scientific uncertainty around origins and dispersant routes of land-based sources of pollution was reduced through a series of reports. Unequal distribution of scientific capabilities between developed and developing states was observed in MAP. This asymmetric distribution was not reduced through cooperation. Similarly, diplomatic and economic powers were unequally distributed as well. The author concluded: "Still, a main problem at both the scientific and the political levels has been a lack of participation from all parties. More than half of the contracting parties do not actively take part in the cooperation but tacitly accept proposals put forth."<sup>16</sup> The reason for this was not explained.

According to Miles et al., regimes that are of interest to this discussion that were assessed as "ineffective" include CITES and the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR). CITES was found to be too focused on banning trade<sup>17</sup> and creating unforeseen implementation costs for its parties;<sup>18</sup> while CCAMLR was institutionally

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<sup>16</sup> *Ibid* at 325.

<sup>17</sup> The authors attributed the development of these policies to developed countries concerned with domestic priorities influenced heavily by environmental NGOs.

<sup>18</sup> Maaria Curlier & Steinar Andersen, "International Trade in Endangered Species: The CITES Regime" in Edward Miles *et al*, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002) 357.

too weak to respond to increased short-term economic pressures at the expense of long-term conservation objectives.<sup>19</sup>

Victor, Raustiala and Skolnikoff's project on effectiveness of environmental agreements falls somewhere in the middle of the methodological complexity spectrum.<sup>20</sup> Here the authors conducted 14 case studies examining implementation in eight clusters of international environmental regulations, consisting of binding and non-binding agreements. Effectiveness was defined as "extent to which the accord causes changes in the behavior of targets that further the goals of the accord."<sup>21</sup> In order to evaluate effectiveness, the authors adopted descriptive methods, in particular the "process tracing" method where they examined the historical chain of events involved in the implementation process trying to identify cause and effect. The authors also engaged in counterfactual thought experiments where they speculated on the outcomes under different sets of conditions.

International agreements on fauna and flora formed one of the clusters examined by Victor, Raustiala and Skolnikoff's team although the focus of the review was on the creation and use of systems for implementation review in these agreements. The focus on the systems for implementation review was based on the hypothesis that agreements where implementation is reviewed on regular basis are more effective.<sup>22</sup> The review of 34 fauna and flora agreements

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<sup>19</sup> Steinar Andersen, "The Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR): Improving Procedures but Lacking Results" in Edward Miles *et al*, *Environmental Regime Effectiveness: Confronting Theory with Evidence*. (Cambridge, Massachusetts: MIT Press, 2002) 405.

<sup>20</sup> David G Victor, Kal Raustila & Eugene Skolnikoff, eds, *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (Cambridge, Massachusetts: MIT Press, 1998).

<sup>21</sup> David G Victor, Kal Raustila & Eugene Skolnikoff, "Introduction and Overview" in David G Victor, Kal Raustila & Eugene Skolnikoff, eds, *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (Cambridge, Massachusetts: MIT Press, 1998) 1 at 6.

<sup>22</sup> John Lanchbery, "Long-Term Trends in Systems for Implementation Review in International Agreements on Fauna and Flora" in David G Victor, Kal Raustila & Eugene Skolnikoff, eds, *The Implementation and Effectiveness*

uncovered an increasing trend in the adoption of implementation review mechanisms over time, driven in large part by the NGOs. The only exceptions were agreements where all of the parties were developing states. No conclusions were reached on the effectiveness of the fauna and flora agreements.

The project also reviewed the Baltic Sea Regime, which is one of the independent Regional Seas Programmes.<sup>23</sup> The focus again was on the adoption and use of implementation review mechanisms. The author of this case study concluded that the regime became more “dynamic and effective” as more emphasis was put on the implementation review over the years. It appears from this case study that the Baltic Sea Regime in the late 1980s and early 1990s was exclusively focused on marine pollution and was not involved in the protection and management of marine living resources.

Baakman looked specifically at effectiveness of biodiversity-related conventions using a simpler methodology than described above. She evaluated effectiveness of CITES, CMS, CBD, the Ramsar Convention, and the World Heritage Convention (WHC). Baakman defined effectiveness as follows: “An international biodiversity-related convention is considered to be effective when it has the potential to eliminate or substantially ameliorate the problem that led to its creation.”<sup>24</sup> Ten elements were assessed with the following benchmark criteria for each element:

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*of International Environmental Commitments: Theory and Practice* (Cambridge, Massachusetts: MIT Press, 1998) 57.

<sup>23</sup> Owen Greene, “Implementation Review and the Baltic Sea Regime” in David G Victor, Kal Raustila & Eugene Skolnikoff, eds, *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (Cambridge, Massachusetts: MIT Press, 1998) 177.

<sup>24</sup> Karin Baakman, *Testing Times: The Effectiveness of Five International Biodiversity-Related Conventions* (Nijmegen: Wolf Legal Publishers, 2011) at 46.



(1) Parties – an effective convention “must have the participation of the vast majority of states, and at least three-quarters of UN Member States must be a party to the convention;”<sup>25</sup>

(2) Institutional framework - an effective convention “at least consists of a well-functioning decision-making body, secretariat and scientific body that have adequate financial budgets to perform the tasks assigned to them;”<sup>26</sup>

(3) Environmental NGOs and other stakeholder groups – “A biodiversity- related convention and/or its decision-making body must facilitate active cooperation with environmental NGOs and other stakeholders;”<sup>27</sup>

(4) Objectives, measures and timing – “A biodiversity-related convention must include one or more clear and precise objective(s) and adequate measures addressing the problem, supplemented and enhanced by resolutions and/or decisions of its decision-making body, which must include realistic timetables;”<sup>28</sup>

(5) Implementation - “the core provisions in relation to the objective(s) of a biodiversity-related convention must have been implemented into national laws, regulations, policies and other measures and initiatives by at least three-quarters of the parties, whilst the implementation should be actively and verifiably supervised by the secretariat;”<sup>29</sup>

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<sup>25</sup> *Ibid* at 48.

<sup>26</sup> *Ibid* at 49.

<sup>27</sup> *Ibid* at 50.

<sup>28</sup> *Ibid* at 51.

<sup>29</sup> *Ibid* at 52.

(6) Reservations, derogations and other exceptions – “Reservations, derogations or other exceptions made by states and/or international organisations to a biodiversity-related convention should not have a significant negative effect on the realisation of its objective(s);”<sup>30</sup>

(7) Monitoring – “The decision-making body of a biodiversity-related convention must have at its disposal reliable scientific data enabling it to monitor progress towards the realisation of its objective(s);”<sup>31</sup>

(8) Communication, education and public awareness – “The decision-making body of a biodiversity-related convention must have a comprehensive communication, education and public awareness (CEPA) programme in place and it should provide public access to up-to-date information through the internet and other appropriate means. National CEPA programmes must have been implemented by at least three-quarters of the parties;”<sup>32</sup>

(9) Incentives – “A biodiversity-related convention and/or its decision-making body must offer one or more incentives to its parties, including a meaningful financial incentive to its parties that are developing countries;”<sup>33</sup> and

(10) Compliance and enforcement – for a convention to be effective “(a) at least three-quarters of the parties must ensure that national laws, regulations, policies and other measures related to the implementation of the convention are complied with and that adequate sanctions are available where necessary, whilst this compliance and enforcement should be actively and verifiably supervised by the secretariat. (b) A biodiversity-related convention and/or its decision-

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<sup>30</sup> *Ibid* at 53.

<sup>31</sup> *Ibid* at 53.

<sup>32</sup> *Ibid* at 54.

<sup>33</sup> *Ibid* at 55.

making body must require and ensure regular standardised and comprehensive national reporting by the parties to the secretariat of the convention, which requirement, like other reporting requirements under the convention, must be complied with by at least three-quarters of the parties. Furthermore, a biodiversity-related convention must include or its decision-making body must have adopted one or more compliance mechanism(s), including at least an active non-compliance procedure in some form.”<sup>34</sup>

Baakman assigned “satisfactory” or “unsatisfactory” score to each element using primary and secondary sources, questionnaires completed by the secretariats and other relevant institutions, as well as a number of interviews. She did not engage in a country-by-country examination of adopted measures. Baakman concluded that none of the reviewed conventions were effective as none received “satisfactory” scores on all ten elements. WHC scored the highest, receiving “satisfactory” score on five of the ten elements, followed by CBD with “satisfactory” scores on four of the evaluated elements. The author noted that “Environmental NGOs and Other Stakeholder Groups” and “Reservations, Derogations and Other Exceptions” were the only elements where all five conventions received “satisfactory” scores. All five conventions received “unsatisfactory” scores on “Implementation”, “Monitoring”, and “Communication, Education and Public Awareness”.

Baakman’s work has received a generally positive review from Veit Koester.<sup>35</sup> He found her methodology to be robust, with minor critiques,<sup>36</sup> and conclusions defensible. Koester

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<sup>34</sup> *Ibid* at 57.

<sup>35</sup> Veit Koester, “Book Review - Testing Times: The Effectiveness of Five International Biodiversity-related Conventions” (2012), 21:1 RECIEL 67.

<sup>36</sup> For example, Koester queried whether Baakman was overstating the importance of compliance mechanisms in her analysis. He also noted the absence of national implementation data but concluded that “it would have been an insurmountable task to carry out such an examination” (Koester, *ibid* at 70).

observed that the issue of effectiveness is a matter “of shades of grey”<sup>37</sup> and as a result, it was inevitable that conclusions are influenced by subjective beliefs leading to differences in opinions among experts. In the case of Baakman’s study, Koester was surprised to see WHC ranked ahead of CITES, but noted that none of the materials he referenced in support of his view were based on a thorough effectiveness assessment of the two conventions.

Finally, Jacobson completed the only peer-reviewed study that assessed the effectiveness of the RSP, in this case, in addressing marine pollution.<sup>38</sup> He reviewed 12 RSPs in place at that time. Jacobson adopted the organizational process analysis, evaluating the procedural developments and program activities of the RSPs in light of the goals described in the action plans. The assessment focused on the five key elements of each action plan: environmental assessment, environmental management, environmental legislation, institutional arrangements, and financial arrangements. Jacobson concluded that the Programme has demonstrated success in establishing the administrative, scientific, political and financial institutions necessary to address marine pollution. It has also contributed to institutional capacity building in the regions. Some of the identified shortcomings included difficulties in describing the environmental problem in actionable form, narrow focus on less significant environmental problems, lack of sufficient funding by states, and absence of documented environmental improvements. Detailed analysis of the key action plan elements was as follows.

All RSPs have taken steps towards assessment of marine pollution in their regions and established monitoring programs. However, many states lacked the technical and financial capacity to engage in sophisticated monitoring programs envisioned under the action plans.

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<sup>37</sup> *Ibid* at 68.

<sup>38</sup> Michael A Jacobson, “The United Nations’ Regional Seas Programme: How Does It Measure Up?” (1995) 23 *Coastal Management* 19.

Specific difficulties such as absence of scientific networks, lack of communication between scientists and managers, narrow focus on dumping and accidental spills, as well as insufficient regional coordination also hindered progress towards environmental assessment goals.

With respect to environmental management, or as Jacobson described it, the link between the assessment activities and the decision-making process, positive progress was made as well. The RSP increased visibility, financing and regional cooperation as well as provided training opportunities and stimulated the adoption of environmental management programs and building of the necessary infrastructure. At the same time, Jacobson found that many of the action plans narrowly focused on oil pollution and missed the opportunity to adopt a broader ecosystem perspective despite incorporating management techniques such as environmental impact assessment and coastal zone management.

On the question of environmental legislation, Jacobson noted that “the protocols adopted to date seem to propose adequate policy solutions to address the intended issue”.<sup>39</sup> However, few data were available on their implementation. Information that was available, suggested that even the Mediterranean’s Protocol for Land-Based Sources, described as “the strongest legal regime” within the RSP, struggled with compliance. Jacobson concluded that the main reason regions were struggling was because of inadequate legal and policy frameworks that regulated the key sources of contamination and degradation. He observed a complete lack of information on national legislation and regulations enacted in response to the RSP’s initiatives.

The assessment of the institutional structure was mainly positive. Jacobson found that while new administrations were created to address marine pollution, existing national institutions

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<sup>39</sup> *Ibid* at 28.

were also incorporated in the new structure. The emphasis on strengthening the national infrastructure was acknowledged as one of the major benefits of the RSP approach. The fact that diametrically opposed states were willing to cooperate through the RSPs was also recognized as an indicator of a successful institutional model. Failure to engage with noncoastal states within a watershed was noted as the one institutional oversight.

Finally, looking at the financial arrangements, Jacobson found that each RSP had established a regional trust fund and there were signs of financial leveraging of the UNEP's seed funding. But financial self-sufficiency remained elusive for the majority of the programs and many struggled to carry out their adopted action plans as a result. None of the reviewed regions met their trust fund contribution goals, demonstrating a relatively low level of priority given to the RSPs by the states.

This literature review has shown that effectiveness is a multifaceted concept that does not lend itself to a singular definition or a study methodology. Instead, the authors of the studies select definitions and approaches based on their objectives and judgment. This flexibility makes the effectiveness field open to new approaches, definitions and subject matters of inquiry. There are also commonalities in the way the authors approach their effectiveness assessments. They break down the concept into constituting elements and then evaluate these elements based on the criteria that they develop. This project takes the same approach and breaks down effectiveness into legal and institutional design and regional implementation. The next part explains in detail the methodology used in this project to evaluate effectiveness of the UNEP's RSP in protecting and recovering marine species at risk.

## **4.2 Methodology**

This project adopts a comparative case study method to assess relative potential effectiveness of four RSPs to protect and recover marine species at risk. The nature of the problem, one of the factors influencing effectiveness, will remain consistent across the case studies.<sup>40</sup> This is a unique element of this work, because besides Jacobson, researchers have compared effectiveness across instruments aimed at addressing different environmental problems. Even Baakman's work, although focused on biodiversity-related conventions, reviewed instruments that address the issue of biodiversity conservation from different angles. Conservation of species at risk is intellectually and politically challenging problem.<sup>41</sup> It is intellectually complex because a lot remains unknown about species' behaviour, in particular, in response to environmental change while being influenced by an interconnected web of factors. At the same time, achieving recovery of depleted species often requires forgoing short-term economic benefits leading to political conflict within and between states.

Four RSPs were selected as case studies. These are the North-East Atlantic, Mediterranean, East Africa, and Caribbean programmes. These programmes were selected primarily because they are geographically diverse and their constituting legal instruments contain binding obligations to protect marine biodiversity in general or species at risk specifically. The fact that some information about their activities is publically available online was also a consideration.

This study will not engage with RSP agreements and activities that are aimed at pollution control and oil spill response. While these agreements are undeniably beneficial to species at risk, the volume of content related to these issues is too great to be reviewed within the

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<sup>40</sup> Victor, Raustiala & Skolnikoff, *supra* note 21; Underdal, *supra* note 12.

<sup>41</sup> Underdal, *ibid.*

scope of this research project. Also, the work will not review and discuss species protection measures adopted by international fisheries bodies even though these organizations are key players in marine conservation. These bodies are not part of the RSP, and their workings are beyond the scope of this research project.

Several studies in the effectiveness field have adopted the language of regimes.<sup>42</sup> “Regime” is a broad term used to describe social institutions that influence the behaviour of states and individuals.<sup>43</sup> It includes formal and informal principles, norms, rules, procedures and programs, as well as understandings and relationships.<sup>44</sup> This project takes note of this terminology but keeps the language of “programmes” because it narrows the research scope. Given that this is a desk study, it would be difficult to ascertain and assess informal principles, norms, and rules as well as understandings and relationships between different RSP participants as envisaged by regime scholars.

This doctoral project is concerned with potential effectiveness of RSPs to protect and recover marine species at risk. It adopts Baakman’s definition of effectiveness which focuses on the potential of an instrument to achieve its objectives: “An international biodiversity-related convention is considered to be effective when it has the potential to eliminate or substantially ameliorate the problem that led to its creation.”<sup>45</sup> One of the limitations of this study is that it will not be able to answer the question of causation between the reviewed RSP instruments and observed conservation actions. Evaluating causation in the context of effectiveness of

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<sup>42</sup> Jørgen Wettstad, *Designing Effective Environmental Regimes* (United Kingdom, Edward Elgar, 1999); Underdal, *supra* note 1; Young & Levy, *supra* note 3.

<sup>43</sup> Marc A Levy, Oran R Young & Michael Zürn, “The Study of International Regimes” (1995) 1:3 *Eur J Intl Relations* 267.

<sup>44</sup> *Ibid.*

<sup>45</sup> Baakman, *supra* note 24 at 46.



international agreements to save endangered species is very difficult due to the number of intervening variables that influence state behaviour and species populations. Time and resource constraints make it impossible to complete the required analysis to attempt to answer this question.

The concept of potential effectiveness is very similar to the idea expressed by Young that when evaluating effectiveness “the core concern is the extent to which regimes contribute to solving or mitigating the problems that motivate those people who created the regimes.”<sup>46</sup> By focusing on the potential, Baakman’s approach avoids the difficult question of establishing causal relationships between a legal instrument and behavioral outcomes.<sup>47</sup> This is appropriate in this project because it is not examining changes in conservation status of protected species, making it impossible to evaluate the actual impact of adopted measures.

Relative potential effectiveness will be estimated based on information collected online using RSPs’ websites, conference of the parties (COP) reports, reports from subsidiary bodies, such as scientific advisory committees, and secondary literature. Meeting reports are reviewed for the past six years, where available.

In this project, two factors affecting effectiveness will be examined: legal and institutional design and regional level implementation. This is consistent with Chambers’ view that “design and impact are critical to a treaty’s effectiveness.”<sup>48</sup> Legal and institutional design contributes directly to effectiveness as well as indirectly through implementation. For instance, having a convention with protective obligations towards species at risk would increase the RSP’s

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<sup>46</sup> Young, *supra* note 1 at 19854.

<sup>47</sup> Bodansky, *supra* note 2 at 259; Young & Levy, *supra* note 3.

<sup>48</sup> Chambers, *supra* note 1 at 503.

potential to protect species at risk directly, as well as impact the types of activities that are implemented at the regional level. Implementation contributes directly to effectiveness. Thus, programmes that take actions to recover species at risk at the regional level are assessed as having a higher potential to influence positive change in the species conservation status. Due to the complexity of analysis the feedback loops between these elements will not be discussed.

A number of additional methodological limitations should be noted. The study will not assess whether the species listed by the reviewed RSPs are representative of the species at risk under their jurisdiction. Such analysis requires information on the conservation status of marine species not available to the author. Furthermore, although the effectiveness factors used in this study, such as species protected and listing processes, can be objectively described, the overall assessment of potential effectiveness and development of recommendations will require subjective judgment. Finally, document availability and content will be limiting factors since the depth and breadth of the proposed analysis heavily depend on the information that can be assessed over the internet.

The following twelve factors were identified as being relevant to potential effectiveness based on the effectiveness literature in general, as well as based on the scholarly literature relevant to marine species at risk conservation specifically. Each factor is assessed as being relatively “high”, “average” or “low” across the four RSPs using the criteria described below.



**Figure 1.** The simplified model of effectiveness adopted in this project.

#### 4.2.1 Legal and Institutional Design

According to Wettestad, “there is a close interplay between problem characteristics and the optimum institutional design.”<sup>49</sup> In his study, he looked at the following eight factors and how they affect effectiveness: (1) whether access should be exclusive or inclusive; (2) whether participants should be bureaucrats or ministers; (3) whether decision-making should be consensus or majority-based; (4) whether the secretariats should have an active or a supportive role; (5) whether the agenda should be comprehensive or narrow; (6) whether the scientific-political organization should emphasize political involvement or scientific independence; (7) whether verification procedures should be intrusive; and (8) whether compliance mechanisms should focus on rewards or punishments. Wettestad concluded that, in large part, the answers to these questions depend on the nature of the problem and the phase of institutional development. In this project legal and institutional design is systematically analyzed using the following five factors.

1. *What are the characteristics of the obligations or commitments towards species at risk? Are there exemptions?*

These elements are meant to document any binding and voluntary actions that the parties have agreed to take to help protect and recover marine species at risk. The nature of exemptions will help evaluate the strength of the parties’ commitments. Specific obligations to protect and

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<sup>49</sup> Wettestad, *supra* note 42 at 237.

recover species at risk will be assessed as having higher potential effectiveness compared to obligations that are general in nature.

2. *What is the process for determining what species are protected?*

Academic observers have noted the potential for politicization of the listing process and its implications for marine species at risk at national and international levels.<sup>50</sup> Furthermore, the organization of the scientific work and science-policy interface have been identified as being important contributing factors to regime effectiveness.<sup>51</sup> The diversity of RSPs provides an opportunity to survey the existing listing processes and identify any best practices. For this factor, programmes that have an established listing process with input from a technical body will be assessed as having higher relative potential effectiveness.

3. *Who are the parties? Who are the observers?*

Miles et al. recognized the importance of actors to an operation of a regime in their work. Actors were analyzed from the perspective of their power, skill and energy available to contribute to the operations of a regime.<sup>52</sup> This research project will look at actors as parties and observers. Specifically, it is interested to know whether parties are developed or developing countries as it has implications for power and capacity distribution, as well as priority given to species at risk protection and recovery. It will also note whether all states that are parties to the reviewed RSPs are subject to the obligations to protect species at risk, for example by being

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<sup>50</sup> David L. VanderZwaag & Jeffrey A. Hutchings, "Canada's Marine Species at Risk: Science and Law and the Helm, but a Sea of Uncertainties" (2005) 36:3 *Ocean Dev & Intl L* 219; Thomas Gehring & Eva Ruffing, "When Arguments Prevail Over Power: The CITES Procedure for the Listing of Endangered Species" (2008) 8:2 *Global Env Politics* 123.

<sup>51</sup> Wettestad, *supra* note 42; Underdal, *supra* note 12 at 25.

<sup>52</sup> Underdal, *ibid* at 3.

parties to biodiversity protocols. RSPs that have homogenous party composition are assessed as having relatively higher potential effectiveness because this project takes a position that in these situations parties are more likely to have commonalities in resources and priorities given to species at risk. Programmes where all participating parties are subject to the biodiversity obligations are also assessed as having higher potential effectiveness compared to programmes where only some of the parties have agreed to biodiversity protection measures.

For observers, the project will note whether observers are permitted to participate in the meetings and if so, the eligibility criteria. Where information is available, it will be noted whether observers are NGOs, academic institutions, inter-governmental organizations or development banks. All these organizations have different mandates and priorities. RSPs that allow observer participation are assessed as having higher potential effectiveness compared to the programmes that do not.

#### *4. What is the institutional structure of the reviewed RSPs?*

The influence of the institutional structure on the effectiveness of a regime or a convention has been recognized by several scholars.<sup>53</sup> This element will look at the decision-making and advisory mechanisms within the reviewed RSPs. Programmes with an established decision-making mechanism and specialized biodiversity bodies, such as Regional Activity Centers (RACs), will be assessed as having higher potential effectiveness.

#### *5. Is there a system of implementation/compliance review?*

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<sup>53</sup> Miles *et al*, *supra* note 11; Baakman, *supra* note 24; Wettstead, *supra* note 42; Underdal, *supra* note 12.

According to Victor and colleagues, implementation review are “rules and procedures by which parties to international agreements (as well as interest groups, administrative bodies, and the like) exchange data, share information on implementation, monitor activities, assess the adequacy of existing commitments, and handle problems of poor implementation.”<sup>54</sup> This broad approach allows to capture both compliance and reporting mechanisms. Contribution of these mechanisms to effectiveness has been recognized by many scholars.<sup>55</sup> RSPs that have a compliance review mechanism, as well as reporting requirements are assessed as having relatively “high” potential effectiveness.

#### 4.2.2 Regional Implementation

Victor, Raustiala, and Skolnikoff consider implementation to be one of the most important factors affecting behaviour and therefore effectiveness.<sup>56</sup> In their study, the authors looked at national-level implementation of international environmental commitments, as well as systems for implementation review adopted at the international level. Implementation, like effectiveness, is not easily defined.<sup>57</sup> In general, it has been described as the process of influencing targets’ behaviour.<sup>58</sup> Governments, non-state actors, and international institutions all contribute to this process.<sup>59</sup>

The current project focuses on regional-level implementation of species at risk protections adopted by RSPs. Unlike national-level implementation which focuses on activities that affect change in behaviour within countries, regional-level implementation looks at

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<sup>54</sup> Victor, Raustiala & Skolnikoff, *supra* note 21 at 16.

<sup>55</sup> Baakman *supra* note 24; Brown Weiss & Jacobson, *supra* note 5; Wettstad, *supra* note 42; Victor, Raustiala & Skolnikoff, *supra* note 21.

<sup>56</sup> Victor, Raustiala & Skolnikoff, *ibid.*

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*; Underdal, *supra* note 12.

<sup>59</sup> Victor, Raustiala & Skolnikoff, *supra* note 21; Jacobson & Brown Weiss, *supra* note 5.

collective actions taken by the RSP players such as states, secretariats, and observers, to guide the adoption of commitments. Systematic comparative review and discussion will be guided by the following questions:

1. *What marine species are protected?*

As explained in the Introduction, some marine species, such as marine mammals, receive inordinate attention under international law. This element will show whether there are biases towards protection of charismatic megafauna in the RSPs. Programmes where protective lists are limited to marine species will be assessed as having higher potential compared to programmes that also include terrestrial species on their lists.

2. *Are there recovery plans/programs/activities?*

Recovery plans have been recognized as important conservation tools.<sup>60</sup> This category is expanded to include recovery programs and activities that could be carried out by an RSP in the absence of a plan. Programmes that have recovery plans that cover most of the listed species and monitoring mechanisms to assess their performance receive the highest scores on potential effectiveness on this factor.

3. *Are there critical habitat protection initiatives?*

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<sup>60</sup> Recovery strategies are mandated in section 37 of the *Species at Risk Act* in Canada, while recovery plans are required under section § 1533(f) of the *Endangered Species Act* in the U.S. For the general importance of planning see IUCN, *Guidelines for Species Conservation Planning* (Gland: IUCN, 2017) and CBD, *Approaches and Experiences Related to the Implementation of Articles 6 and 8 of the Convention on Biological Diversity*, UNEP/CBD/COP/2/12 (1995).

This element will look at whether the constituting conventions of the reviewed RSPs contain obligations to protect critical habitats of species at risk.<sup>61</sup> Whether marine protected areas are established will be also considered, especially if they are designated with the objective of protecting habitats of species at risk. Protection and recovery of habitat-forming species will be noted. RSPs that have obligations to protect habitats of threatened species in their constituting documents, have designated marine protected areas, and have recovery plans aimed at habitat recovery are assessed as having the highest relative potential effectiveness.

#### *4. Are there mechanisms for cross-sectoral cooperation?*

Interactions with fisheries and other economic activities pose a threat to marine species at risk.<sup>62</sup> To alleviate these threats, cooperation between the environmental and other sectors is needed.<sup>63</sup> This element identifies RSPs that have mechanisms in place to achieve this objective. RSPs that have obligations to cooperate in their constituting documents and have entered into agreements with the relevant fishing and shipping bodies are considered to have high relative potential effectiveness.

#### *5. Is climate change addressed?*

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<sup>61</sup> Martin F J Taylor *et al*, “What Works for Threatened Species Recovery? An Empirical Evaluation for Australia.” (2011) 20:4 Biodiversity & Conservation 767. Also see UNEP/CBD/COP/2/12, *ibid*, where it is mentioned that “most species extinctions involve at least an element of habitat destructions” at para 49.

<sup>62</sup> Kjell Grip & Sven Blomqvist, “Marine nature conservation and conflicts with fisheries” (2020), 49 *Ambio* 1328; Linda R Harris *et al*, “Managing conflicts between economic activities and threatened migratory marine species toward creating a multiobjective blue economy” (2017) 32:2 *Conservation Biology* 411; Chris Wilcox & C Josh Donlan, “Compensatory mitigation as a solution to fisheries bycatch–biodiversity conservation conflicts” (2007) 5:6 *Frontiers in Ecology & Environment* 325.

<sup>63</sup> *Ibid*.



Climate change is anticipated to have significant impacts on marine species from abundance to distribution.<sup>64</sup> These impacts should be taken into consideration during conservation planning.<sup>65</sup> For this element, programmes that have obligations in their constituting documents to consider climate change impacts and that are incorporating these considerations in their decision-making processes are assessed as having the highest relative potential effectiveness.

*6. Has an ecosystem approach been adopted?*

As mentioned in chapter 2, both CBD and the RSP encourage countries to adopt an ecosystem approach to conservation and management of living and non-living resources. However, there is a risk that specific concerns of threatened species may become subsumed in an attempt to manage at a large scale. Whether and how RSPs implement an ecosystem approach needs to be considered when evaluating potential effectiveness of RSPs to protect and recover threatened species. Programmes that are subject to obligations to apply an ecosystem approach and that have mechanisms for doing so are assessed as having higher potential effectiveness compared to programmes that do not meet these parameters.

*7. Is sustainable development addressed?*

One of the core elements of sustainable development is integration of economic, social and environmental policies. Environmental impact assessment is one of the mechanisms that can

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<sup>64</sup> Elvira S Poloczanska *et al*, “Responses of Marine Organisms to Climate Change Across Oceans” (2016) 3 *Frontiers Marine Sci* 1.

<sup>65</sup> IUCN, *supra* note 61; Jeffrey A Hutchings, Tim Stephens & David L VanderZwaag, “Marine Species at Risk Protection in Australia and Canada: Paper Promises, Paltry Progressions” (2016) 47:3 *Ocean Dev & Intl L* 233.

be used to integrate these policies for major projects.<sup>66</sup> The RSP positions itself as a mechanism for sustainable development. Whether and how RSPs address the concept of sustainable development needs to be considered when evaluating potential effectiveness of a programme. RSPs that have obligations under their constituting documents to engage in sustainable development, including environmental impact assessments, and that have established mechanisms for the integration of economic, social and environmental policies are assessed as having relatively high potential effectiveness.

The next chapter contains four case studies applying the above criteria.

**Legal and institutional design**

Institutional structure  
 Parties and observers  
 Obligations  
 Listing process  
 Compliance review

**Regional implementation**

Protected species  
 Recovery plans  
 Habitat measures  
 Cross-sectoral cooperation  
 Climate change  
 Ecosystem approach  
 Sustainable development

**Figure 2.** The effectiveness criteria applied in this project.

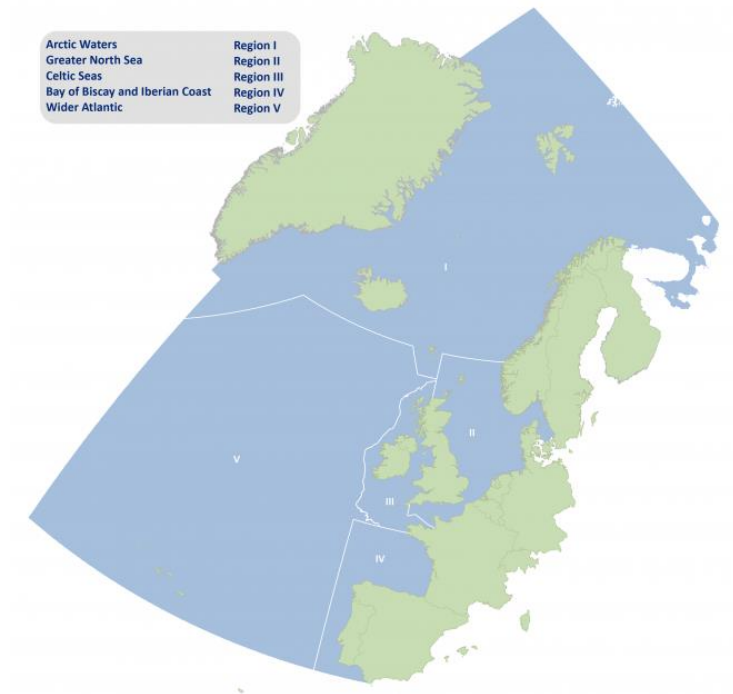
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<sup>66</sup> Peter Jacobson & Barry Sadler, “Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future” (1990), online (pdf): *Canadian Environmental Assessment Research Council* <publications.gc.ca/collections/collection\_2021/eccc/En107-3-79-1990-eng.pdf>.

## CHAPTER 5

### Case Studies

#### 5.1 North-East Atlantic



**Figure 1:** North-East Atlantic RSP<sup>1</sup>

The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) covers an area from the Arctic waters to the Iberian coast, including the high seas.

##### 5.1.1 Institutional structure

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<sup>1</sup> “North East Atlantic”, online: *UNEP* <[www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/north-east?\\_ga=2.229923867.607562723.1679947844-237494480.1674848981](http://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/north-east?_ga=2.229923867.607562723.1679947844-237494480.1674848981)>.

OSPAR has an independent, permanent Secretariat established under Article 12 of the Convention. The Executive Secretary is appointed by the Commission by consensus.<sup>2</sup> The Secretariat is based in the UK.<sup>3</sup> There are no Regional Activity Centers. The Commission consisting of representatives of each contracting party meets at regular intervals to review the implementation of the Convention, among other tasks.<sup>4</sup>

Five subsidiary bodies carry out the work of the Commission. The Biodiversity Committee with its three subsidiary Intersessional Correspondence Groups (ICGs) are most relevant to this discussion.<sup>5</sup> The three ICGs are Coordination of Biodiversity Assessment and Monitoring, Protection and Conservation of Species and Habitats, and Marine Protected Areas. The Biodiversity Committee is comprised of representatives from all contracting parties, as well as observers.<sup>6</sup> It is charged with contributing to the implementation of the North-East Atlantic Environment Strategy 2030, developing and maintaining monitoring and assessment programs, as well as maintaining engagement with other relevant international organizations, including NEAFC.<sup>7</sup> The Biodiversity Committee reports to the Coordination Group on issues requiring coordination and to the OSPAR Commission on an annual basis.<sup>8</sup>

The OSPAR Coordination Group, also a subsidiary body of the Commission, is responsible for integrating the work of the five Committees in order to deliver an ecosystem

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<sup>2</sup> OSPAR Commission, *Rules of Procedure of the OSPAR Commission*, Reference Number 2013-02 [Rules of Procedure], rule 15.

<sup>3</sup> “Secretariat/Staff”, online: *OSPAR Commission* <[www.ospar.org/organisation/staff](http://www.ospar.org/organisation/staff)>.

<sup>4</sup> *Convention for the Protection of the Marine Environment of the North-East Atlantic*, 22 September 1992, 2354 UNTS 67 (entered into force 25 March 1998) [OSPAR Convention], art 10(1) and (2).

<sup>5</sup> “Inside Biological Diversity and Ecosystems”, online: *OSPAR Commission* <[www.ospar.org/work-areas/bdc](http://www.ospar.org/work-areas/bdc)>. The other Committees are the Radioactive Substances Committee, the Offshore Industry committee, the Hazardous Substances and Eutrophication Committee, and the Environmental Impact of Human Activities Committee.

<sup>6</sup> OSPAR Commission, *Terms of Reference for the Coordination Group and Committees for 2022-2025*, Agreement 2022-02, Annex 6.

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*

approach.<sup>9</sup> The Group is comprised of representatives of all contracting parties, observers, and chairs of the five Committees.<sup>10</sup> Four ICGs provide technical expertise to the Coordination Group. These are the ICG for the implementation of the Marine Strategy Framework Directive (EU), the ICG on Ecosystem assessment outlook – Cumulative effects, the ICG on Economic and Social Analysis, as well as the ICG for Ocean Acidification.<sup>11</sup>

**Potential effectiveness:** Relatively high because the North-East Atlantic RSP has an established decision-making structure consisting of all parties and a specialized committee dedicated to biodiversity.

#### 5.1.2 Parties and observers

Fifteen developed countries and one regional economic integration organization are Parties to the OSPAR Convention. These are Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom, and the European Union.<sup>12</sup>

There are tight qualification requirements for observers to the OSPAR Commission and its subsidiary bodies. Article 11 requires unanimous consent of the Parties to admit an observer which may be (a) any state that is not a contracting party; or (b) any international governmental or non-governmental organization “the activities of which are related to the Convention.”<sup>13</sup>

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<sup>9</sup> *Ibid*, Annex 1.

<sup>10</sup> *Ibid*.

<sup>11</sup> “COG (Coordination Group)”, online: *OSPAR Commission* <[www.ospar.org/work-areas/cross-cutting-issues/cog-coordination-group](http://www.ospar.org/work-areas/cross-cutting-issues/cog-coordination-group)>.

<sup>12</sup> “About OSPAR”, online: *OSPAR Commission* <[www.ospar.org/about](http://www.ospar.org/about)>.

<sup>13</sup> OSPAR Convention, art 11(1).

Non-governmental organizations also have to meet the following criteria in the Rules of Procedure of the OSPAR Commission:

- a. have an organised administration;
- b. are international in character (an organisation shall be deemed to be an international organisation for the purposes of the Commission only if it has members, component branches or affiliated bodies in a number of States covered by the Convention area);
- c. are authorised under their constitution to speak for their members through accredited representatives.<sup>14</sup>

Two seats per delegation are available to the general NGO observers at the meeting of the Commission and a total of six seats are open to the specialized NGO observers which are limited in their participation to one or more points on the agenda.<sup>15</sup> In the meetings of the subsidiary bodies, the number of allowed NGO participants varies.<sup>16</sup> The Rules of Procedure are silent on the number of allowed intergovernmental observers.

At the time of writing, 22 intergovernmental organizations and 42 environmental and industry NGOs have observer status at OSPAR.<sup>17</sup> As lists of participants to the OSPAR Commission meetings are not available on the organization's website, it is impossible to say how many of these organizations participate on the regular basis. According to the Rules of Procedure, if an NGO observer does not participate in the work of the Commission for 2

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<sup>14</sup> Rules of Procedure, *supra* note 2, Annex 2, para 1(1.3).

<sup>15</sup> *Ibid*, Annex 2, para 4.1(a).

<sup>16</sup> *Ibid*, Annex 2, para 4.1(b).

<sup>17</sup> "Observers", online: *OSPAR Commission* <[www.ospar.org/organisation/observers](http://www.ospar.org/organisation/observers)>.

consecutive years, the Chair of the Commission may revoke the observer status or restrict participation to the receipt of documents.<sup>18</sup>

Observers have a right to participate in the meetings of the Commission and present information relevant to the objectives of the Convention, subject to the discretion of the meeting host.<sup>19</sup> Non-governmental organizations may make proposals, but such proposals have to be supported by at least one Party for them to be discussed.<sup>20</sup> Observers do not have a right to vote.<sup>21</sup>

**Potential effectiveness:** Relatively high because all parties to the OSPAR Convention are developed countries which suggests general commonalities in available resources and priority given to species at risk conservation and recovery. All parties are subject to the obligations to protect biodiversity; observers are allowed to participate subject to eligibility criteria.

### 5.1.3 Obligations

The OSPAR Convention does not contain specific obligations with respect to species at risk. Nevertheless, general obligations under the Convention include protection of the OSPAR area from adverse impacts of human activities, as well as ecosystem conservation and when practicable, restoration.<sup>22</sup> Annex V, titled “On the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area,” elaborates on these commitments.

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<sup>18</sup> Rules of Procedure, *supra* note 2, Annex 2, para. 7.

<sup>19</sup> OSPAR Convention, art 11(2); Rules of Procedure, *ibid*, Annex 2, para. 4.2.

<sup>20</sup> Rules of Procedure, *ibid*, Annex 2, para 4.2(c).

<sup>21</sup> OSPAR Convention, art 11(2).

<sup>22</sup> OSPAR Convention, art 2(1)(a).

Parties are asked to conserve and protect marine ecosystems and biodiversity and cooperate in controlling human activities.<sup>23</sup> The OSPAR Commission, made up of representative of each of the parties,<sup>24</sup> is directed to develop programs and measures for the control of harmful human activities, including protective, restorative or precautionary measures for specific species and habitats.<sup>25</sup>

Fisheries and shipping matters are explicitly excluded from the purview of the OSPAR Convention.<sup>26</sup> In the case of fisheries, the Commission is required to bring attention of a competent international body to the issue requiring action and engage in complementary or supportive measures, if needed.<sup>27</sup> With respect to shipping, the Commission has to draw attention of the International Maritime Organization (IMO) to the problem, while OSPAR parties who are also IMO members are asked to cooperate in order to secure “an appropriate response.”<sup>28</sup>

The Commission has authority to issue binding decisions and non-binding recommendations.<sup>29</sup> Measures adopted for the benefit of species included on the OSPAR List of Threatened and/or Declining Species and Habitats are recommendations outlining actions that need to be taken nationally, as well as collectively.<sup>30</sup> These are discussed in more details in the Recovery Plans section.

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<sup>23</sup> OSPAR Convention, Annex 5, art 2.

<sup>24</sup> OSPAR Convention, art 10(1).

<sup>25</sup> OSPAR Convention, Annex 5, art 3(1)(a) and 3(1)(b)(ii)

<sup>26</sup> OSPAR Convention, Annex 5, art 4. Also see OSPAR Agreement on the Meaning of certain concepts in Annex V to the 1992 OSPAR Convention on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area. Reference number: 1998-15.2 <[www.ospar.org/site/assets/files/44218/98-152e\\_agreement.pdf](http://www.ospar.org/site/assets/files/44218/98-152e_agreement.pdf)>.

<sup>27</sup> OSPAR Convention, Annex 5, art 4(1).

<sup>28</sup> OSPAR Convention, Annex 5, art 4(2).

<sup>29</sup> OSPAR Convention, art. 13.

<sup>30</sup> “2017-2025 Roadmap for the implementation of collective actions within the Recommendations for the protection and conservation of OSPAR listed Species and Habitats.” (2018), online (pdf): *OSPAR Commission*, <[www.ospar.org/site/assets/files/35421/posh\\_roadmap\\_info\\_doc.pdf](http://www.ospar.org/site/assets/files/35421/posh_roadmap_info_doc.pdf)> [2017-2025 Roadmap].



**Potential effectiveness:** Relatively average because the obligations related to species at risk conservation are general, and not specific, in nature.

#### 5.1.4 Listing process

The OSPAR List of Threatened and/or Declining Species and Habitats was adopted by the Commission in response to the OSPAR Biological Diversity and Ecosystem Strategy, endorsed at the same time as Annex V to guide its implementation.<sup>31</sup> It is meant to assist the Commission in setting its priorities for work on marine biodiversity conservation.<sup>32</sup> Parties and observers<sup>33</sup> nominated species and habitats for inclusion, while the International Council for the Exploration of the Sea (ICES) peer-reviewed supporting data.<sup>34</sup> In assessing proposals, OSPAR relies on the Texel-Faial Criteria that considers the importance of the OSPAR area to the species/habitat, its sensitivity to human activities, evidence of decline, and ecological role.<sup>35</sup> Records of discussion of the proposals are not available online.

The OSPAR List may be modified through a procedure involving reviews by the Intersessional Correspondence Group on the Implementation and Follow up of Measures for the Protection and Conservation of Species and Habitats and the Biodiversity Committee.<sup>36</sup>

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<sup>31</sup> OSPAR “List of Threatened and/or Declining Species and Habitats.” Reference Number: 2008-6. online: *OSPAR Commission* <[www.ospar.org/work-areas/bdc/species-habitats](http://www.ospar.org/work-areas/bdc/species-habitats)>.

<sup>32</sup> *Ibid.*

<sup>33</sup> Observer proposals have to be supported by at least one party before they can be assessed. See Rules of Procedure, *supra* note 2, Annex 2, para 4.2(c).

<sup>34</sup> OSPAR Commission, *Criteria for the Identification of Species and Habitats in need of Protection and their Method of Application (The Texel-Faial Criteria)*, OSPAR Agreement 2019-03.

<sup>35</sup> *Ibid.*

<sup>36</sup> *Ibid.*

**Potential effectiveness:** Relatively high because the programme has established listing criteria and listing proposals are reviewed by a technical body.

#### 5.1.5 Compliance review

Article 6 of the OSPAR Convention directs the parties to engage in regular assessments of the quality status of the marine environment and evaluation of the effectiveness of the taken and planned measures. OSPAR has produced two Quality Status Reports (QSRs) since 2000 and is currently working on the third.<sup>37</sup> According to the QSR 2010, success could be noted with respect to three invertebrate species: dog whelk, the Azorean limpet and to some degree blue mussel in Wadden Sea.<sup>38</sup> Ban on the use of tributyltin (TBT) in anti-fouling paint and adoption of management measures to limit exploitation were identified as the reasons for success. Progress on the protection of other species was assessed as “too slow”. Diadromous fishes, commercially important species (cod, orange roughy and bluefin tuna), elasmobranchs, in particular common skate, angel shark, and white skate, Balearic shearwater, black-legged kittiwake, leatherback sea turtle, ocean quahog, and flat oyster were flagged for priority actions. Overexploitation, loss of habitat, introduction of invasive species, obstacles to migration, and poor water quality were identified as the reasons for declines. Climate change was noted as an exacerbating factor.

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<sup>37</sup> “Quality Status Reports”, online: *OSPAR Assessment Portal* <[oap.ospar.org/en/ospar-assessments/quality-status-reports/](http://oap.ospar.org/en/ospar-assessments/quality-status-reports/)>.

<sup>38</sup> “Quality Status Report 2010. Chapter 10 Protection and Conservation of Biodiversity and Ecosystems”, online: *OSPAR Commission* <[qsr2010.ospar.org/en/ch10\\_03.html](http://qsr2010.ospar.org/en/ch10_03.html)>.

There are additional indications that OSPAR lacks the resources and competence to reverse the declines in its protected species.<sup>39</sup> With respect to the collective action to develop mitigation measure against further anthropogenic threats, members of the Biodiversity Committee were unsure whether OSPAR had authority to adopt any measures to help the large whales.<sup>40</sup> There are also concerns with national-level implementation of OSPAR Recommendations as a review of the observance of Recommendation 2010/5 encouraging parties to consider OSPAR listed species and habitats in environmental impact assessments showed less than 50 percent compliance.<sup>41</sup> The fact that Recommendations to protect species and habitats are non-binding was noted as one of the barriers to national-level implementation. The OSPAR North-East Atlantic Environment Strategy 2030 requires annual reporting by the OSPAR subsidiary bodies involved in the implementation.<sup>42</sup>

**Potential effectiveness:** Relatively low because there are no compliance review mechanisms in place.

#### 5.1.6 Protected species

Nine species of sea birds, five invertebrates, four marine mammals, two reptiles and 22 fishes are included on the OSPAR List of Threatened and/or Declining Species and Habitats.<sup>43</sup>

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<sup>39</sup> OSPAR “Convention for the Protection of the Marine Environment of the North-East Atlantic Meeting of the Biodiversity Committee (BDC). Videoconference 12-16 April 2021” online: *OSPAR Commission* <[www.ospar.org/meetings/archive](http://www.ospar.org/meetings/archive)>. See paras 5.16-5.21.

<sup>40</sup> *Ibid*, paras 5.19(a)-(b) and 5.20(a).

<sup>41</sup> “Overview Assessment of OSPAR Recommendation 2010/5 on assessments of environmental impact in relation to threatened and/or declining species and habitats” (2018), online: *OSPAR Commission* <[www.ospar.org/documents?v=38950](http://www.ospar.org/documents?v=38950)>.

<sup>42</sup> OSPAR Commission, *Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic 2030. Implementation plan*, OSPAR Agreement 2021-02.

**Potential effectiveness:** Relatively high because protected species are limited to marine species. This allows focusing resources on their recovery.

#### 5.1.7 Recovery plans

The contracting parties have adopted Recommendations for strengthening protection for each of the species on the OSPAR List, except blue fin tuna and dog whelk. These Recommendations are generally tailored to the needs of the species. For example, for species that do not have consistent legal protections among the Contracting Parties, the Recommendations encourage adoptions of domestic legislation to protect the species.<sup>44</sup> They also recommend parties consider designating key habitat areas as OSPAR MPAs.<sup>45</sup> For bowhead and blue whales, the Recommendations include monitoring entanglements and underwater noise.<sup>46</sup> However, for some reason, the Recommendation for the northern right whale does not promote these measures.<sup>47</sup> With respect to the commercially valuable fishes, the Recommendations for porbeagle and the European eel include encouragement of the parties to consider protecting all

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<sup>43</sup> “List of Threatened and/or Declining Species and Habitats”, online: *OSPAR Commission* <[www.ospar.org/work-areas/bdc/species-habitats/list-of-threatened-declining-species-habitats](http://www.ospar.org/work-areas/bdc/species-habitats/list-of-threatened-declining-species-habitats)>.

<sup>44</sup> For example, OSPAR Commission, *OSPAR Recommendation 2011/4 on furthering the protection and conservation of the Balearic shearwater (Puffinus mauretanicus)*, OSPAR 11/20/1, Annex 11 (2011); OSPAR Commission, *OSPAR Recommendation 2015/04 on furthering the protection and conservation of the Allis shad (Alosa alosa) in Regions II, III and IV of the OSPAR maritime area*, OSPAR 15/20/1, Annex 8 (2015); OSPAR Commission, *Recommendation 2013/5 on furthering the protection and restoration of the ocean quahog (Arctica islandica) in Region II of the OSPAR maritime area*, OSPAR 13/4/1, Annex 8, amended by OSPAR Recommendation 2020/1 (OSPAR 20/12/1, Annex 12); OSPAR Commission, *OSPAR Recommendation 2013/11 on furthering the protection and restoration of the harbour porpoise (Phocoena phocoena) in Regions II and III of the OSPAR maritime area*, OSPAR 13/4/1, Annex 11 (2013).

<sup>45</sup> *Ibid.*

<sup>46</sup> OSPAR 13/4/1, *ibid*; OSPAR Commission, *Recommendation 2013/9 on furthering the protection and conservation of the North Atlantic blue whale (Balaenoptera musculus) in the OSPAR maritime area*, OSPAR 13/4/1, Annex 12 (2013).

<sup>47</sup> OSPAR Commission, *OSPAR Recommendation 2013/10 on furthering the protection and conservation of the northern right whale (Eubalaena glacialis) in the OSPAR maritime area*, OSPAR 13/4/1, Annex 13 (2013).

life stages of the species domestically.<sup>48</sup> At the same time, the Recommendation for cod is limited to encouraging parties to cooperate with competent international bodies, in addition to research recommendations.<sup>49</sup>

To guide the implementation of the collective measures contained in the Recommendations to protect species and habitats on the OSPAR List, the OSPAR Commission adopted the 2017-2025 Roadmap.<sup>50</sup> The Biodiversity Committee is responsible for the Roadmap's overall execution, while individual countries lead some of the 46 collective actions.<sup>51</sup> The collective actions are grouped into seven themes: communication and awareness raising; monitoring and assessment; marine protected areas; legislation and legal protection; pressures from human activities; research and knowledge generation; and other management actions.<sup>52</sup> A wide-range of listed species is named as targets of these collective actions.

The importance of a biologically diverse North-East Atlantic is recognized in the vision statement for the newly adopted OSPAR North-East Atlantic Environment Strategy 2030.<sup>53</sup> Two strategic objectives contain actions relevant to species at risk. Strategic objective 5 aims to “protect and conserve marine biodiversity, ecosystems and their services to achieve good status of species and habitats, and thereby maintain and strengthen ecosystem resilience.” However, the two operative objectives that deal with species conservation are quite general. By 2025, OSPAR intends to “take appropriate actions to prevent or reduce pressures to enable the recovery of

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<sup>48</sup> OSPAR Commission, *OSPAR Recommendation 2014/6 on furthering the protection and conservation of the porbeagle shark (Lamna nasus) in the OSPAR maritime area*, OSPAR 14/21/1, Annex 11 (2014).

<sup>49</sup> OSPAR Commission, *OSPAR Recommendation 2014/14 on furthering the protection and conservation of cod (Gadus morhua) in the OSPAR Maritime Area, Regions II and III*, OSPAR 14/21/1, Annex 19 (2014).

<sup>50</sup> 2017-2025 Roadmap, *supra* note 30.

<sup>51</sup> *Ibid.*

<sup>52</sup> “Implementation of Species and Habitat Recommendations”, online: *OSPAR Commission* <[www.ospar.org/work-areas/bdc/species-habitats/implementation-of-species-and-habitat-recommendations](http://www.ospar.org/work-areas/bdc/species-habitats/implementation-of-species-and-habitat-recommendations)>.

<sup>53</sup> OSPAR Commission, *Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic 2030*, Agreement 2021-01.

marine species” and implement “all agreed measures to enable the recovery of OSPAR Listed threatened and/or declining species.”<sup>54</sup> There is a commitment to halting the decline of marine birds by 2023, but no further details are provided.<sup>55</sup> Strategic objective 7 deals with sustainable uses of the OSPAR area and one of its operative objectives is to minimize, and where possible eliminate, incidental by-catch.<sup>56</sup> Other objectives dealing with marine pollution, underwater noise, and habitat protection are likely to have positive indirect impact, if successfully implemented.

**Potential effectiveness:** Relatively average because the majority of the protected species are covered by a recovery plan, but there is no implementation review.

#### 5.1.8 Habitat measures

Eighteen habitats are on the OSPAR List of Threatened and/or Declining Species and Habitats.<sup>57</sup> Their importance or use by threatened species is not considered in the listing. Each listed habitat has a corresponding protective Recommendation, similar to species.

Protection, conservation and restoration of threatened species is one of the objectives of the OSPAR Network of MPAs.<sup>58</sup> As of 2018, OSPAR Network of MPAs included 496 areas, covering 6.4 per cent of the OSPAR maritime zone.<sup>59</sup> According to the most recent status report,

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<sup>54</sup> *Ibid*, at operative objective S5.04 and S5.05.

<sup>55</sup> *Ibid*, operative objective S5.04.

<sup>56</sup> *Ibid*, operative objective S7.06.

<sup>57</sup> “Habitat”, online: *OSPAR Commission* <[www.ospar.org/work-areas/bdc/species-habitats/list-of-threatened-declining-species-habitats/habitats](http://www.ospar.org/work-areas/bdc/species-habitats/list-of-threatened-declining-species-habitats/habitats)>.

<sup>58</sup> “2018 Status Report on the OSPAR Network of Marine Protected Areas” (2019), online (pdf): *OSPAR Commission* <[oap-cloudfront.ospar.org/media/filer\\_public/50/bb/50bba6bf-4d16-4066-ad51-169d1784979d/p00730\\_ospar\\_mpa\\_status-report\\_2018.pdf](http://oap-cloudfront.ospar.org/media/filer_public/50/bb/50bba6bf-4d16-4066-ad51-169d1784979d/p00730_ospar_mpa_status-report_2018.pdf)>.

<sup>59</sup> *Ibid*.

14 of the 54 listed species and habitats are protected within more than one MPA.<sup>60</sup> Specifically, the report concluded that all OSPAR Threatened and/or Declining invertebrates, three of the nine birds, one of the two reptiles, one of the four marine mammals, and one of the 20 fishes were sufficiently protected.<sup>61</sup>

**Potential effectiveness:** Relatively high because the OSPAR Convention contains obligations to protect habitats of listed species; habitat recovery plans have been developed, and marine protected areas have been established.

#### 5.1.9 Cross-sectoral cooperation

Article 4, Annex V directs the Commission to work with competent fisheries bodies and the IMO. OSPAR has entered into memoranda of understanding with ten intergovernmental organizations, including the IMO, NEAFC, and the North Atlantic Salmon Conservation Organization (NASCO).<sup>62</sup>

Under the Agreement of Cooperation between IMO and OSPAR, the two organizations agreed to consult each other and exchange information on matters of common interest in addition to other cooperative actions.<sup>63</sup> Subsequently, the two organizations entered into a separate agreement to “cooperate in promoting issues within the scope of the London Convention and

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<sup>60</sup> *Ibid.*

<sup>61</sup> *Ibid.*

<sup>62</sup> “Memoranda of Understanding & Cooperation Arrangements”, online: *OSPAR Commission* <[www.ospar.org/about/international-cooperation/memoranda-of-understanding](http://www.ospar.org/about/international-cooperation/memoranda-of-understanding)>.

<sup>63</sup> OSPAR Commission, *Agreement of Cooperation between IMO and OSPAR*, OSPAR 99/8/2-E (1999), <[www.ospar.org/about/international-cooperation/memoranda-of-understanding](http://www.ospar.org/about/international-cooperation/memoranda-of-understanding)>.

London Protocol at the regional level to prevent marine pollution by dumping of wastes and other matter...”<sup>64</sup>

Under the terms of the MOU with NEAFC, the two organizations agreed to exchange information and data, discuss their concerns over the management of human activities in the North-East Atlantic and possible measures to address them, develop a common understanding of the application of the precautionary approach, cooperate on marine spatial planning, as well as encourage scientific research into agreed-upon areas.<sup>65</sup>

OSPAR and NASCO agreed to “communicate, as necessary, to share information, including annual reports and data and, where appropriate, coordinate on matters concerning the conservation and rational management of Atlantic salmon and the protection of marine ecosystems in the North-East Atlantic.”<sup>66</sup>

OSPAR and NEAFC have also created the collective arrangement that covers selected high seas areas in the North – East Atlantic, including seven OSPAR MPAs.<sup>67</sup> The arrangement is open to all competent international organizations that have authority to protect the marine environment in the North-East Atlantic or manage human activities in this area and which agree to cooperate in ensuring that appropriate management measures are adopted for these selected areas.

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<sup>64</sup> OSPAR Commission, *Memorandum of Understanding (MoU) between the International Maritime Organization (IMO) and the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Commission) on the promotion of the London Convention and London Protocol*, OSPAR Agreement 2018-10, at para. 1.

<sup>65</sup> OSPAR Commission, *Memorandum of Understanding between the North East Atlantic Fisheries Commission (NEAFC) and the OSPAR Commission*, OSPAR Agreement 2008-4.

<sup>66</sup> “Memorandum of Understanding between the North Atlantic Salmon Conservation Organization and the OSPAR Commission” (2013), online: *OSPAR Commission* <[www.ospar.org/documents?v=32953](http://www.ospar.org/documents?v=32953)>.

<sup>67</sup> OSPAR Commission, *Collective arrangement between competent international organisations on cooperation and coordination regarding selected areas in areas beyond national jurisdiction in the North-East Atlantic*, OSPAR Agreement 2014-09 (Updated 2018).



**Potential effectiveness:** Relatively high because the OSPAR Convention contains obligations to cooperate with competent fisheries and shipping bodies and MOUs have been signed with these bodies.

#### 5.1.10 Climate change

Climate change is not explicitly mentioned in the OSPAR Convention. According to the OSPAR website, the organization is committed to monitoring and assessing the nature, rate and extent of the effects of climate change and ocean acidification on species, habitats and ecosystems and incorporating adaptation and mitigation into their work.<sup>68</sup> This commitment was further recognized in the OSPAR North-East Atlantic Environment Strategy 2030 with strategic objective 11 which aims to “facilitate adaptation to the impacts of climate change and ocean acidification.” One of the activities will include incorporating climate change and ocean acidification considerations into revisions of the OSPAR list of threatened and/or declining species and habitats and species status assessments.<sup>69</sup>

**Potential effectiveness:** Relatively average because although there is recognition of the need to incorporate climate change considerations into the decision-making processes, this has not happened to date.

#### 5.1.11 Ecosystem approach

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<sup>68</sup> “Climate change”, online: *OSPAR Commission* <[www.ospar.org/work-areas/cross-cutting-issues/climate-change](http://www.ospar.org/work-areas/cross-cutting-issues/climate-change)>.

<sup>69</sup> Agreement 2021-01, *supra* note 47, operative objective S11.03.

Article 3(1)(b)(iv) of Annex V states that one of the duties of the Commission is to “aim for the application of an integrated ecosystem approach.” Measures related to fisheries and maritime transport are explicitly excluded.<sup>70</sup>

The North-East Atlantic Strategy 2030 also recognizes the ecosystem approach as a guiding principle in implementation. It is explained as “the comprehensive integrated management of human activities based on the best available scientific knowledge of the ecosystem and its dynamics, in order to identify and take action on drivers, activities and pressures that adversely affect the health of marine ecosystems.”<sup>71</sup> The ecosystem approach is to be implemented through a reiterative cycle of goal setting, monitoring, and updating based on new information and take into consideration cumulative effects.

The ecosystem approach is implemented by the Coordination Group, discussed in the Institutional Structure section.

**Potential effectiveness:** Relatively high because the OSPAR Convention requires parties to apply an ecosystem approach, and there is a mechanism for its implementation.

#### 5.1.12 Sustainable development

The OSPAR Convention and Annexes do not explicitly mention sustainable development. Instead, they refer to “sustainable use” of biological diversity and its components. There are no provisions for environmental impact assessments.

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<sup>70</sup> OSPAR Convention, Annex V, art 4.

<sup>71</sup> Agreement 2021-01, *supra* note 47, at 5.

The Environmental Impacts of Human Activities Committee (EIHA) is one of the subsidiary bodies of the Commission composed of all contracting parties and observers. It is tasked with coordinating work under the OSPAR Convention to ensure sustainable use of the marine environment through the integrated management of current and emergent human activities. The Committee is specifically directed to exchange information with the Biodiversity Committee on impacts of human activities on species, habitats, ecosystem functioning, non-indigenous species and disturbance to the seabed. The EIHA is also supposed to contribute to the implementation of the North-East Atlantic Environment Strategy 2030 and to the development of tools for integrated management, such as socio-economic analysis and cumulative effects assessment, marine spatial planning, and ecosystem-based management.

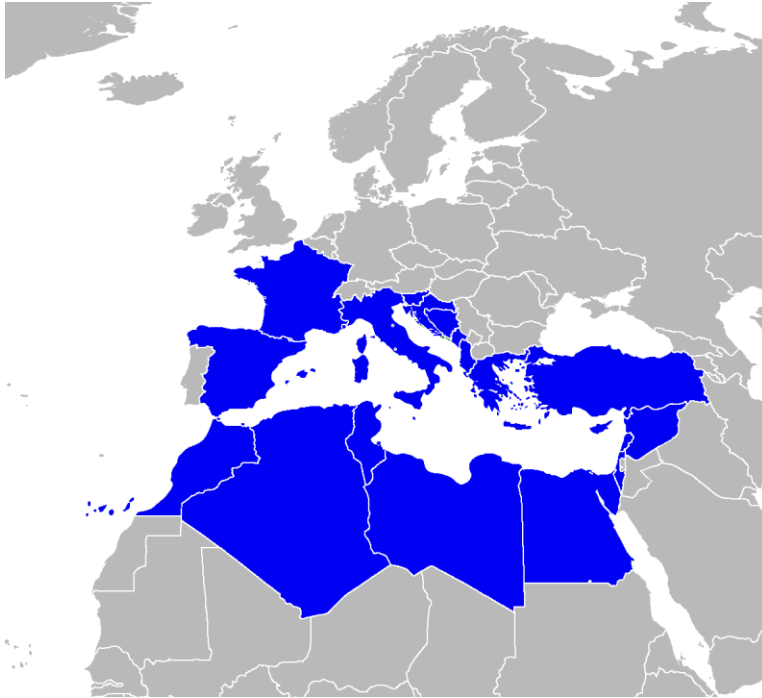
The need for sustainable use of the marine environment is recognized in the North-East Atlantic Environment Strategy 2030. Strategic objective seven calls for integrated management of current and emergent human activities, including addressing their cumulative impacts, while objectives eight and nine address underwater noise levels and seabed disturbance, respectively.

**Potential effectiveness:** Relatively average but leaning towards high because the need for sustainable use of marine resources is explicitly mentioned in the OSPAR Convention. There is also a mechanism to bring together environmental and development concerns, but there are no obligations to conduct environmental impact assessments under this treaty.

#### 5.1.13 Overall potential effectiveness

OSPAR was assessed relatively high on seven out of the twelve categories suggesting that overall the programme has relatively high potential to protect and recover marine species at risk within its convention area. In particular, OSPAR's implementation of cross-sectoral cooperation and an ecosystem approach stand out. At the same time, the programme needs to focus on its compliance and implementation review, as well as incorporating climate change considerations into its decision-making processes.

## 5.2 Mediterranean



**Figure 2:** Mediterranean RSP<sup>72</sup>

The Convention for the Protection of the Mediterranean Sea against Pollution and Related Protocols was signed in 1976 and came into effect 1978. It was subsequently amended in 1995 and renamed the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (the Barcelona Convention).<sup>73</sup> According to article 10, parties agreed to “individually or jointly, take all appropriate measures to protect and preserve biological diversity, rare or fragile ecosystems, as well as species of wild fauna and flora which are rare, depleted, threatened or endangered and their habitats.”

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<sup>72</sup> “Barcelona Convention”, online: *Wikipedia* <[en.wikipedia.org/wiki/Barcelona\\_Convention](http://en.wikipedia.org/wiki/Barcelona_Convention)>.

<sup>73</sup> *1995 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean* (with Annexes and Protocols), 10 June 1995, 1102 UNTS 27 (entered into force 9 July 2004), formerly known as the Convention for the protection of the Mediterranean Sea against pollution, 16 February 1976 (entered into force 12 February 1978) [Barcelona Convention]; “Barcelona Convention and Protocols”, online: *UNEP* <[www.unenvironment.org/unesmap/who-we-are/barcelona-convention-and-protocols](http://www.unenvironment.org/unesmap/who-we-are/barcelona-convention-and-protocols)>.

The Barcelona Convention has seven protocols. The most relevant is the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol) adopted in 1995 and in force since 1999.<sup>74</sup> It covers the Mediterranean Sea, the seabed and the territorial waters of its parties.<sup>75</sup>

### 5.2.1 Institutional structure

The MAP – Barcelona Convention system has a complex institutional structure. UNEP is designated as the secretariat under article 13 of the Barcelona Convention. It provides secretariat services through the MAP Coordinating Unit located in Athens, Greece.<sup>76</sup> The SPA/RAC, based in Tunis, Tunisia, is charged with assisting the secretariat in coordinating the implementation of the SPA/BD Protocol.<sup>77</sup> The Priority Actions Programme Regional Activity Centre (PAP/RAC) also may be relevant to the conservation of species at risk as it provides support for development of regional and national policies and preparation of legal documents.<sup>78</sup> However, progress reports and assessments are outdated or unavailable online and the details of PAP/RAC’s operations are unclear.

The MAP – Barcelona Convention system has three additional RACs: the Plan Bleu Regional Activity Centre, the Regional Activity Centre for Sustainable Consumption and Production, and the Regional Activity Centre for Information and Communication.<sup>79</sup> There are also the Mediterranean Pollution Assessment and Control Programme (MED POL) and the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC).

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<sup>74</sup> “Mediterranean”, online: *UNEP* <[www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/mediterranean](http://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/mediterranean)>.

<sup>75</sup> SPA/BD Protocol, art 2(1).

<sup>76</sup> “Institutional set-up”, online: *UNEP MAP* <[www.unep.org/unepmap/who-we-are/institutional-set](http://www.unep.org/unepmap/who-we-are/institutional-set)>.

<sup>77</sup> SPA/BD Protocol, art 25.

<sup>78</sup> “Who are we?”, online: *PAP/RAC* <[paprac.org/who-are-we](http://paprac.org/who-are-we)>.

<sup>79</sup> “Institutional set-up”, *supra* note 76.

The Mediterranean Commission on Sustainable Development (MCSD) was established under the Barcelona Convention to assist parties in integrating environmental and socioeconomic programs. The Commission membership has a broad base and includes representatives from different levels of government, NGOs, and academia.<sup>80</sup> The MCSD has an advisory role and leads the development of the Mediterranean Strategy on Sustainable Development.

National Focal Points representing each of the parties act as liaisons with the SPA/RAC.<sup>81</sup> National Focal Points meet periodically to discuss implementation of the Protocol and present their recommendations at the SPA/BD ordinary meetings.<sup>82</sup> Parties to the SPA/BD Protocol hold ordinary meetings once every two years.<sup>83</sup> These meetings review efficacy of the adopted management measures for species and protected areas; make recommendations to the parties on the implementation of the Protocol; and evaluate exemptions for scientific, educational or management purposes, as well as for traditional activities of local populations, among other tasks.<sup>84</sup> Six elected representatives of the contracting parties serve as members of the Bureau guiding the implementation of the adopted work program in the intersessional period.<sup>85</sup>

**Potential effectiveness:** Relatively high because there is a decision-making body consisting of all parties and a specialized RAC dedicated to biodiversity.

### 5.2.2 Parties and observers

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<sup>80</sup> “Governing and subsidiary bodies”, online: *UNEP MAP* <[www.unep.org/unepmap/who-we-are/governing-and-subsidiary-bodies](http://www.unep.org/unepmap/who-we-are/governing-and-subsidiary-bodies)>.

<sup>81</sup> SPA/BD Protocol, art 24.

<sup>82</sup> SPA/BD Protocol, art 24 and 26(g).

<sup>83</sup> SPA/BD Protocol, art 26(1); Barcelona Convention, art 18(1).

<sup>84</sup> SPA/BD Protocol, art 26(2).

<sup>85</sup> “Governing and subsidiary bodies”, *supra* note 80.

Twenty-one states, plus the EU are parties to the Barcelona Convention. Sixteen of these states, representing a mix of developed and developing countries,<sup>86</sup> plus the EU, are parties to the SPA/BD Protocol. Developed states parties to the SPA/BD Protocol are as follows: Croatia, Cyprus, France, Italy, Malta, Monaco, Montenegro, Slovenia, Spain, Turkey and EU.<sup>87</sup> Developing party countries are: Albania, Algeria, Egypt, Morocco, Syria, and Tunisia.<sup>88</sup>

Article 20 of the Barcelona Convention grants parties authority to admit as observers states that are not parties to the convention, intergovernmental organizations, and NGOs that are involved in activities related to the Convention. Observers are allowed to participate in meetings and present information or reports.<sup>89</sup> They do not have a right to vote.<sup>90</sup>

According to the Rules of Procedure, “tacit agreement” of two-thirds of the contracting parties is needed to invite states that are not parties to the Barcelona Convention or a non-UN intergovernmental organization to participate in the meetings as observers.<sup>91</sup> Tacit consent of all parties is needed to invite an international NGO, while no consent is needed to invite the UN and its competent subsidiary bodies, the International Atomic Energy Agency and the specialized agencies if they participate in the activities of the MAP.<sup>92</sup> In 2009, parties adopted additional accreditation requirements for NGOs.<sup>93</sup> Eligible NGOs have to have legal status, exist for at least four years, provide financial and activity reports for the last two years, operate democratically,

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<sup>86</sup> According to “World population review”, <https://worldpopulationreview.com/country-rankings/developed-countries> (accessed 18 November 2021).

<sup>87</sup> “Specially Protected Areas Protocol/SPA and Biodiversity Protocol”, online: *UNEP MAP* <[www.unep.org/unepmap/who-we-are/contracting-parties/specially-protected-areas-protocol-spa-and-biodiversity-protocol?\\_ga=2.45828324.1702930495.1636479574-1040724952.1618396577](http://www.unep.org/unepmap/who-we-are/contracting-parties/specially-protected-areas-protocol-spa-and-biodiversity-protocol?_ga=2.45828324.1702930495.1636479574-1040724952.1618396577)>.

<sup>88</sup> *Ibid.*

<sup>89</sup> Barcelona Convention, art 20(2).

<sup>90</sup> *Ibid.*

<sup>91</sup> “Rules of procedure for meetings and conferences of the Contracting Parties to the Convention of the Mediterranean Sea against Pollution and its related Protocols”, online (pdf): *UNEP* <[www.rac-spa.org/nfp14/documents/03\\_reference\\_documents/rulesofprocedure\\_en.pdf](http://www.rac-spa.org/nfp14/documents/03_reference_documents/rulesofprocedure_en.pdf)>. See Rule 6(1) and 8(1.A).

<sup>92</sup> *Ibid.*, Rule 7(1) and 8(1.B).

<sup>93</sup> UNEP MAP, *MAP/Civil society cooperation and partnership*, Decision IG19/6 (2009).



and have an office in a Mediterranean country, in addition to meeting conditions related to expertise.<sup>94</sup>

According to the UNEP/MAP- Barcelona Convention system, there are 11 inter-governmental organizations and 53 NGOs mostly from the environmental field that have been granted Partner/observer status.<sup>95</sup> Looking specifically at observers who have participated in SPA/BD focal points meetings going back to 2013, ACCOBAMS and IUCN were the most consistent inter-governmental participants, attending all four meetings.<sup>96</sup> By comparison, the General Fisheries Commission for the Mediterranean attended once. MedPAN, a network of MPAs, was the most involved NGO, followed by Oceana. Representatives from the two organizations attended four and three meetings, respectively. Other occasional NGO participants included organizations specializing in sea turtle and shark conservation, research institutes, funders, and national and international NGOs such as WWF and Cyprus Wildlife Society. The International Association of Oil & Gas Producers came once in 2019.

**Potential effectiveness:** Relatively average because the parties to the Barcelona Convention are a mix of developed and developing states which suggests a disparity in power, priorities, and available resources. Also, not all states parties to the Barcelona Convention are parties to the biodiversity protocol. Observers are allowed to participate, subject to eligibility criteria.

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<sup>94</sup> *Ibid*, Annex II.

<sup>95</sup> “Partnerships”, online: *UNEP MAP* <[www.unep.org/unepmap/who-we-are/partnerships](http://www.unep.org/unepmap/who-we-are/partnerships)>.

<sup>96</sup> UNEP MAP, *Report of the Fourteenth Meeting of SPA/BD Thematic Focal Points*, UNEP(DEPI)/MED WG 461/28 (2019); UNEP MAP, *Report of the Thirteenth Meeting of Focal Points for Specially Protected Areas*, UNEP(DEPI)/MED WG 431/15 (2017); UNEP MAP, *Report of the Twelfth Meeting of Focal Points for SPAs*, UNEP(DEPI)/MED WG 408/18 rev.1 (2015); UNEP MAP, *Report of the Eleventh Meeting of Focal Points for SPAs*, UNEP(DEPI)/MED WG 382/17 (2013).

### 5.2.3 Obligations

Parties to the SPA/BD Protocol are subject to individual, as well as collective obligations with respect to species at risk. Each party is individually responsible for taking the “necessary measures to protect, preserve and manage threatened or endangered species of flora and fauna.”<sup>97</sup> Management needs to be with the aim of maintaining flora and fauna in “a favourable state of conservation.”<sup>98</sup> Parties are asked to identify endangered and threatened species within their territories and protect them from activities that have adverse effects on them or their habitats.<sup>99</sup> Under article 11, for species of fauna, parties are required to control, and where appropriate, prohibit:

- a) The taking, possession or killing (including to the extent possible, the incidental taking, possession or killing), the commercial trade, the transport and the exhibition for commercial purposes of these species, their eggs, parts or products;
- b) To the extent possible, the disturbance of wild fauna, particularly during the period of breeding, incubation, hibernation or migration, as well as other periods of biological stress.<sup>100</sup>

For species of flora, parties are required to “regulate, and where appropriate, prohibit all forms of destruction and disturbance, including the picking, collecting, cutting, uprooting, possession of, commercial trade in, or transport and exhibition for commercial purposes of such

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<sup>97</sup> SPA/BD Protocol at art 3(1)(b).

<sup>98</sup> SPA/BD Protocol, art 11(1).

<sup>99</sup> SPA/BD Protocol, art 11(2).

<sup>100</sup> SPA/BD Protocol at art 11(3).

species.”<sup>101</sup> These measures are to be applied to the protected species, as well as their parts and products.

Collectively, parties are asked to adopt cooperative measures for the protection and conservation of species listed on the two Annexes: the List of Endangered or Threatened Species (Annex II) and the List of Species whose Exploitation is Regulated (Annex III).<sup>102</sup> Parties are to “ensure the maximum possible protection and recovery” of the species listed on Annex II by adopting measures enumerated in article 11.<sup>103</sup> They are also to prohibit the destruction and damage to the habitats Annex II species and develop and implement action plans for their recovery.<sup>104</sup>

For species on Annex III, parties are to cooperate with competent international organizations and authorize and regulate the exploitation of these species in a way that maintains their favourable state of conservation.<sup>105</sup>

In formulating their protective measures, parties have to “take into account the traditional subsistence and cultural activities of their local populations.”<sup>106</sup>

Two sets of exemptions are allowed under SPA/BD Protocol. First, parties may grant exemptions to the prohibitions for scientific, educational or management purposes necessary for the survival of the species or to prevent significant damage, as long as the exemption does not harm the survival of the target or any other species and there are no other satisfactory

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<sup>101</sup> SPA/BD Protocol at art 11(5).

<sup>102</sup> SPA/BD Protocol, art 12(1).

<sup>103</sup> SPA/BD Protocol, art 12(2).

<sup>104</sup> SPA/BD Protocol, art 12(3).

<sup>105</sup> SPA/BD Protocol, art 12(4).

<sup>106</sup> SPA/BD Protocol, art 18(1).

alternatives.<sup>107</sup> Second, parties may grant exemptions to meet the subsistence and cultural needs of their local populations, as long as the exemptions do not cause extinctions or substantially reduce the population of endangered, threatened, migratory or endemic species.<sup>108</sup> In both cases, parties granting the exemptions have to notify the other parties.

Additional obligations under the SPA Protocol related to species at risk are to:

- Compile inventories of endangered or threatened species;<sup>109</sup>
- Publicize the establishment of protected areas and protection of certain species and any applicable regulations;<sup>110</sup>
- Promote public participation in conservation activities;<sup>111</sup>
- Encourage and develop research into the management of protected species;<sup>112</sup>
- Conduct research and institute monitoring programs necessary for the identification and monitoring of protected species and assessing the effectiveness of management and recovery plans; consult with each other and competent international organizations in these regards;<sup>113</sup>
- Prioritize species listed on the Annexes for scientific and technical research, as well as mutual assistance;<sup>114</sup>

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<sup>107</sup> SPA/BD Protocol, art 12(6).

<sup>108</sup> SPA/BD Protocol, art 18(1).

<sup>109</sup> SPA/BD Protocol, art 15.

<sup>110</sup> SPA/BD Protocol, art 19(1).

<sup>111</sup> SPA/BD Protocol, art 19(2).

<sup>112</sup> SPA/BD Protocol, art 20(1).

<sup>113</sup> SPA/BD Protocol, art 20(2).

<sup>114</sup> SPA/BD Protocol, art 20(4) and 22(3).

- Cooperate and coordinate in the selection, management and conservation of protected species and exchange information and experiences in these regards;<sup>115</sup>
- Notify other parties and the RAC of any situations that might endanger the survival of protected species;<sup>116</sup>
- Report to the meeting of the parties on the changes to the legal status of protected species;<sup>117</sup>
- Conduct environmental impact assessment of projects and activities that could significantly affect protected species and their habitats, taking into account direct, indirect, immediate, long-term and cumulative impacts;<sup>118</sup>
- Formulate and adopt plans for captive breeding and propagation of protected species;<sup>119</sup>
- Where feasible, return protected species exported or held illegally to their natural habitat.<sup>120</sup>

**Potential effectiveness:** Relatively high because the SPA/BD Protocol contains specific obligations to protect species at risk.

#### 5.2.4 Listing process

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<sup>115</sup> SPA/BD Protocol, art 21(1).

<sup>116</sup> SPA/BD Protocol, art 21(2).

<sup>117</sup> SPA/BD Protocol, art 23(b).

<sup>118</sup> SPA/BD Protocol, art 17.

<sup>119</sup> SPA/BD Protocol, art 11(6).

<sup>120</sup> SPA/BD Protocol, art 11(8).

The original species lists were compiled at the two Meetings of Experts on Endangered Species in the Mediterranean held in 1995 and 1996 and subsequently reviewed by SPA/BD focal points and government experts.<sup>121</sup> Article 16 of the SPA/BD Protocol directs the parties to adopt common criteria for inclusion of additional species to the Annexes, which was done in 2008.<sup>122</sup> The adopted Common Criteria applies to addition and removal of species from the Annexes. It states that species are to be selected based on a scientific basis and conservation status assessed using the IUCN Red List methodology. However, the fact that Critically Endangered European eel is listed on Annex III, despite meeting the conditions for inclusion under the stricter Annex II, suggests that considerations not included in the Common Criteria influence the listing decisions.

For species proposed for listing on Annex II, reliable scientific data needs to show one of the following:

- 1) the species is in decline with a substantial reduction in its numbers (observed, estimated, inferred or suspected); or that
- 2) important reductions (including fragmentation) of its habitats have been observed in the Mediterranean; or that

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<sup>121</sup> Final Act of the Meeting of Plenipotentiaries on the Annexes to the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (1996), UNEP(OCA)/MED IG.10/4, < [http://www.rac-spa.org/sites/default/files/meetings/nfp10/wg\\_348\\_ref\\_03.pdf](http://www.rac-spa.org/sites/default/files/meetings/nfp10/wg_348_ref_03.pdf)>. Resolution I, Adoption of the Annexes to the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean.

<sup>122</sup> UNEP MAP, *Common Criteria for proposing amendments to Annexes II and III of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean*, Decision IG 17/14 (2008).

- 3) the species or its Mediterranean population figures on the IUCN red list as critically endangered, endangered or vulnerable or appears in the IUCN-ACCOBAMS cetacean Red List.<sup>123</sup>

Special considerations are outlined for habitat building species and “those at the basis of important biological formations for the Mediterranean.”<sup>124</sup>

A species may be included on Annex III if one of the following conditions is met:

- 1) statistical data show a regression of more than 50% of landings over the past 5 years; or
- 2) unless its exploitation is regulated, it is likely to fall into the category of endangered or threatened species as defined by the Protocol.<sup>125</sup>

A species may also be included on Annex III if it is harvested by methods destructive to biological formations or protected habitats.<sup>126</sup>

Proposals to amend the Annexes of the SPA/BD Protocol have to originate from a contracting party.<sup>127</sup> They are then submitted for evaluation to the meeting of Focal Points for SPA/BD Protocol.<sup>128</sup> The recommendations from that meeting are then submitted to the contracting parties for their consideration and adoption.<sup>129</sup> The Barcelona Convention requires amendments to the Annexes to be adopted by a three-fourths majority.<sup>130</sup> Parties unable to agree to the amendments have the right to submit an objection.<sup>131</sup> For example, in 1996, Malta made a

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<sup>123</sup> *Ibid* at Annex, para 1.

<sup>124</sup> *Ibid* at Annex, para 2.

<sup>125</sup> *Ibid* at Annex, para 5.

<sup>126</sup> *Ibid* at Annex, para 6.

<sup>127</sup> Barcelona Convention, art 23(2)(i).

<sup>128</sup> Decision IG 17/14, *supra* note 122 at Annex, para. (c).

<sup>129</sup> *Ibid* at Annex, para (d).

<sup>130</sup> Barcelona Convention, art 23(2)(ii).

<sup>131</sup> Barcelona Convention, art 23(2)(iv).

reservation regarding 17 species such as the European eel, porbeagle shark and swordfish, on the basis that these species were important to the Maltese fishing industry and required further study of national implications of their inclusion on the SPA/BD Annexes.<sup>132</sup> Similarly, in 2012, EU took a reservation on an uplisting of shark and ray species in order to conduct internal consultations to define a common position.<sup>133</sup> Tunisia also entered a reservation at the same meeting about inclusion of the two species of Critically Endangered guitarfishes on Annex II.<sup>134</sup> The representative of Tunisia argued that the species were abundant on the south coast.<sup>135</sup> It is unclear whether these reservations have been lifted.

**Potential effectiveness:** Relatively average because while the listing criteria have been established, listing proposals are not reviewed by a technical body.

#### 5.2.5 Compliance review

Article 26 of the Barcelona Convention requires parties to report on national level implementation of the Convention and its Protocols and comment on the effectiveness of the adopted measures and any barriers to implementation. Article 27 directs the COP to review national reports, assess compliance and make recommendations to improve implementation and compliance. Similarly, article 23 of the SPA/BD Protocol requires parties to submit to COP implementation reports, including any changes to the legal status of protected species and allowed exemptions.

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<sup>132</sup> UNEP(OCA)/MED IG.10/4, *supra* note 121. Declarations Made at the Time of Adoption of the Annexes to the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean.

<sup>133</sup> UNEP MAP, *Report of the Tenth Meeting of Focal Points for SPAs*, UNEP(DEPI)/MED WG 359/22 (2011), para 127; UNEP MAP, *Amendments of the Annexes II and III to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean*, Decision IG 20/5 (2012), preamble.

<sup>134</sup> Decision IG.20/5, *ibid*.

<sup>135</sup> UNEP(DEPI)/MED WG.359/22, *supra* note 133, para. 130.



The Barcelona Convention Compliance Committee is tasked with reviewing situations of actual or potential non-compliance by individual parties with the obligations under the Barcelona Convention or its Protocols, as well as address general and recurring non-compliance issues.<sup>136</sup> The procedure is intended to be non-adversarial, transparent, preventative, and non-binding and take into account the specific situation of each party, in particular developing countries.<sup>137</sup> The Committee provides advice and non-binding recommendations aimed at improving compliance.<sup>138</sup>

According to a 2019 Report on the status of implementation of the SPA/BD Protocol, the majority of the 11 parties that submitted information have taken regulatory measures to protect and manage endangered or threatened species.<sup>139</sup> However, specific break-downs are less optimistic. Only six out of 11 parties mentioned that they have laws or policy in place to protect species listed on Annexes II and III. Two parties indicated that these measures were being developed. Only two parties submitted information on enforcement. Implementation of the regional action plans varied. The strongest efforts were made to implement the regional plan of action for birds. Lack of financial resources was the most commonly cited barrier. In light of these uninspiring results, it was disappointing to see the Compliance Committee recommending two measures to promote compliance with the SPA/BD Protocol: (1) identify, establish and

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<sup>136</sup> UNEP MAP, *Procedures and Mechanisms on Compliance under the Barcelona Convention and its Protocols (Consolidated text)*, Decision IG. 17/2, amended by Decision IG. 20/1, Annex I and Decision IG 21/1, Annex IV, para. 17.

<sup>137</sup> “Governing and subsidiary bodies”, online: *UNEP MAP* <[www.unep.org/unepmap/who-we-are/governing-and-subsidiary-bodies](http://www.unep.org/unepmap/who-we-are/governing-and-subsidiary-bodies)>.

<sup>138</sup> *Ibid.*

<sup>139</sup> UNEP MAP, *Report on the status of implementation of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol)*, UNEP/MED WG 461/3 (2019).

effectively manage SPAMIs, especially on the high seas and deep areas; and (2) compile an inventory of the marine and coastal biodiversity.<sup>140</sup>

**Potential effectiveness:** Relatively high because there are reporting obligations under the Barcelona Convention and SPA/BD Protocol, and there is a specialized compliance review mechanism.

#### 5.2.6 Protected species

Over 170 marine species are listed on Annexes II and III of the SPA/BD Protocol. The fact that species' names are only available in Latin makes the Annexes difficult to work with.

The species are grouped in the following categories:

##### Annex II

Flowering plants – 4 species

Green algae – 1 species

Golden and brown algae – 6 species, plus *Cystoseira* genus (except *Cystoseira compressa*)

Red algae – 9 species

Sponges – 7 species, plus all *Aplysina* and *Tethya* species

Moss – 1 species

Cnidaria (sea anemones, corals, sea pens, jellyfish) – 18 species

Mollusks – 17 species

Crustaceans – 2 species

Echinodermata (starfish, sea urchins, sand dollars, sea cucumbers) – 3 species

Fishes – 36 species

Reptiles – 6 species

Birds – 25 species

Mammals – 19 species

##### Annex III

Sponges – 5 species

Cnidaria – 1 species, plus all *Antipathes* (black coral) species

Echinodermata – 1 species

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<sup>140</sup> UNEP MAP, *Compliance Committee*, Decision IG. 24/1, Annex III (2019), para 14 and 15.

Crustaceans – 6 species  
Fishes – 19 species

**Potential effectiveness:** Relatively high because protected species are limited to marine species. This means that resources could be focused on their recovery.

### 5.2.7 Recovery plans

Two key policy documents set the overarching priorities for the participants in the UNEP/MAP – Barcelona Convention system. The Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAPBIO), adopted in 2003, identified conservation of sensitive species, habitats and sites as one of the seven lines of action.<sup>141</sup> Post-2020 SAPBIO was adopted at COP22 and it has several goals and targets that are directly relevant to marine species at risk conservation.<sup>142</sup> Goal 1 calls for a reduction of the threats to biodiversity. Target 1.1 is by 2030 to minimize anthropogenic pressure on listed species and habitats. Goal 2 calls for biodiversity to be preserved, maintained or enhanced in order to meet people’s needs. Target 2.4 asks the countries to implement science-based fisheries management by 2027, minimize discards, and eliminate targeted and incidental capture of protected species.

The Mediterranean Strategy for Sustainable Development (MSSD) 2016-2025 specifically recognizes the need to ensure that legal measures are in place to protect biodiversity in line with countries’ international commitments, and sets a target of 2020 for protecting and

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<sup>141</sup> “SAPBIO”, online: *SAP/RAC* <<https://www.rac-spa.org/sapbio>>.

<sup>142</sup> UNEP MAP, *Post-2020 Strategic Action Programme for the Conservation of Biodiversity and Sustainable Management of Natural Resources in the Mediterranean Region (Post-2020 SAPBIO)*, Decision IG 25/11 (2021).

preventing the extinction of threatened species.<sup>143</sup> The importance of implementing the Ecosystem Approach Roadmap and SAPBIO, as well as taking action to ensure sustainable fisheries is also noted.<sup>144</sup>

Five regional recovery strategies and action plans have been adopted and updated by the SPA/BD parties targeting species listed on Annexes II and III. The oldest of these plans date back to 1987 (monk seal) and 1989 (sea turtles). Additional plans that focus on habitat features are also in place.

*Regional Strategy for the Conservation of Mediterranean Monk Seal*<sup>145</sup>

Over the next two decades, the ecological recovery of monk seals in the Mediterranean will deem to have occurred, when multiple colonies have become established within all major habitats in their historic range, interacting in ecologically significant ways with the fullest possible set of other species, and inspiring and connecting human cultures.<sup>146</sup>

This vision is supported by four goals and numerous objectives and targets. The main one is the establishment of the Monk Seal Advisory Committee to support SPA/RAC in the implementation of the Strategy.<sup>147</sup> States are asked to develop national programs based on the Strategy and the 1987 Action Plan for the Management of the Mediterranean Monk Seal (*Monachus monachus*).<sup>148</sup> Other measures encouraged by the Regional Strategy include protecting breeding nuclei in priority locations from deliberate killings and habitat degradation;

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<sup>143</sup> UNEP MAP, *Mediterranean Strategy for Sustainable Development 2016-2025*, Decision IG 22/2 (2016), action 2.1.1.

<sup>144</sup> *Ibid*, actions 1.1.2, 1.1.7 and 1.2.5.

<sup>145</sup> UNEP MAP, *Updated Regional strategy for the conservation of monk seal in the Mediterranean*, Decision IG 24/7, Annex II (2019).

<sup>146</sup> *Ibid* at para 9.

<sup>147</sup> *Ibid*, para 15.

<sup>148</sup> *Ibid*, para 21.

enforcement of laws prohibiting firearms and explosives aboard fishing vessels, in particular in priority sites; development of a regional protocol for rescue and rehabilitation, as well as disaster contingency plans; assessment of habitat suitability and establishment of MPAs to protect habitat; monitoring of distribution and abundance; and finally, awareness and capacity building activities, especially training for key stakeholders in mitigating the main threats (deliberate killing, habitat degradation, and entanglement/bycatch). The Regional Strategy is to be reviewed in 2025, with a mid-term evaluation recommended for 2022.<sup>149</sup>

*Updated Action Plan for the Conservation of Mediterranean Marine Turtles*<sup>150</sup>

The objectives of this Updated Action Plan are the recovery of the loggerhead and green sea turtle populations in the Mediterranean through protection, conservation and management of their habitats and improved scientific knowledge.<sup>151</sup> In the Priorities section, protection is expanded to include the species.<sup>152</sup> The plan sets five priorities: protection and management of the species and their habitats; research and monitoring; public awareness and education; capacity building and training; and coordination. Recommended activities under protection and management include extending legal protection to sea turtles by parties that have not done this yet, enforcing provisions against deliberate killings, and adopting fisheries management measures to minimize incidental bycatch.<sup>153</sup> Integrated management plans, as well as other legal measures are recommended to protect critical habitats.<sup>154</sup> The parties are also asked to develop national action plans and set up sea turtle rescue centers, among other activities under the five

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<sup>149</sup> *Ibid*, para 96-97.

<sup>150</sup> UNEP MAP, *Updated Action Plan for the Conservation of Marine Turtles in the Mediterranean*, Decision IG 24/7, Annex III (2019).

<sup>151</sup> *Ibid*, para 14.

<sup>152</sup> *Ibid*, para 15.

<sup>153</sup> *Ibid*, para 22, 25 and 29.

<sup>154</sup> *Ibid*, para 23, 26 and 27.

priorities.<sup>155</sup> The implementation of this action plan is to be reviewed every five years by the SPA/RAC and parties.<sup>156</sup>

*Updated Action Plan for the Conservation of Cetaceans in the Mediterranean Sea*<sup>157</sup>

This Action Plan for 2016-2020 identifies five priority action areas: legal and institutional measures; data collection and research; reduction of cetacean-fisheries interactions; mitigation of the impact of underwater noise; and habitat conservation. It recognizes the similarities in obligations under SPA/BD Protocol and ACCOBAMS and encourages parties to ratify the ACCOBAMS Agreement and collaborate with its focal points at the national level.<sup>158</sup> Regulation of whale-watching activities, prohibition on deliberate killings, as well as implementation of ACCOBAMS and the General Fisheries Commission for the Mediterranean (GFCM) cetacean-related measures (ex. bycatch reduction, noise mitigation) are some of the recommended measures.

*Updated Action Plan for the Conservation of Cartilaginous Fishes (Chondrichthyans) in the Mediterranean Sea*<sup>159</sup>

The Action Plan for 2020 -2024 sets six objectives: conservation of the chondrichthyan populations in the Mediterranean by promoting bycatch reduction; protection of vulnerable chondrichthyan species; identification, protection and restoration of critical habitats; improved scientific knowledge; recovery of depleted chondrichthyan stocks; and public awareness and

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<sup>155</sup> *Ibid*, para 31 and 39.

<sup>156</sup> *Ibid*, Annex I.

<sup>157</sup> UNEP MAP, *Updated Action Plan for the Conservation of Cetaceans in the Mediterranean Sea*, Decision IG 22/12, Annex I (2016).

<sup>158</sup> *Ibid*, 581.

<sup>159</sup> UNEP MAP, *Updated Action Plan for the Conservation of Cartilaginous Fishes (Chondrichthyans) in the Mediterranean Sea*, Decision IG 24/7, Annex IV (2019).

capacity building around these issues.<sup>160</sup> Priority actions include legal protection for species on Annex II of the SPA/BD Protocol, encouragement of fishing practices that minimize chondrichthyan bycatch and facilitate live release, especially in endangered and commercially important species, as well as assessment of conservation status of data-deficient species.<sup>161</sup> Parties are asked to implement the recommendation of the GFCM which bans retention, transshipment, landing, transfer, storage, sale or display of species on Annex II of the SPA/BD Protocol and requires their live release, to the extent possible, in cases of incidental capture.<sup>162</sup> Adoption of critical habitat protections into fisheries management and integrated coastal zone management is encouraged.<sup>163</sup> The Action Plan is to be reviewed, and amended if needed, at each meeting of the national focal points for SPA/BD Protocol.<sup>164</sup>

*Action Plan for the Conservation of Marine and Coastal Bird Species listed in Annex II to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean*<sup>165</sup>

Twenty-five species of birds are listed on Annex II of the SPA/BD Protocol. The Action Plan for 2018-2023 sets the main objective as maintaining or restoring the populations of the listed bird species to a favourable conservation status and ensuring their long-term conservation.<sup>166</sup> Secondary objectives include information sharing, coordination of efforts, and

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<sup>160</sup> *Ibid*, para 12.

<sup>161</sup> *Ibid*, para 13.

<sup>162</sup> *Ibid*, para 14. See Recommendation GFCM/42/2018/2 on fisheries management measures for the conservation of sharks and rays in the GFCM area of application, amending Recommendation GFCM/36/2012/3.

<sup>163</sup> *Ibid*, para 23-25.

<sup>164</sup> *Ibid*, para 41.

<sup>165</sup> UNEP MAP, *Updated Action Plan for the Conservation of Marine and Coastal Bird Species listed in Annex II of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean*, Decision IG 23/8, Annex I (2017).

<sup>166</sup> *Ibid*, part 2.1.

research.<sup>167</sup> Five categories of activities are highlighted as being key to the achievement of the objectives of the Action Plan: establishment of protected areas in important bird habitats; legal protection and incorporation of bird considerations into environmental impact assessments; research; monitoring; awareness raising, education and training; as well as development of national action plans for the listed species.<sup>168</sup> SPA/BD focal points are supposed to assess the implementation of the Action Plan at their meetings, while SPA/RAC is to prepare a report at the end of the plan's term.<sup>169</sup> The Action Plan contains species-specific plans for all of the listed birds.

*Updated Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea*<sup>170</sup>

This Action Plan encourages parties to engage in four categories of activities: regulatory; inventory and mapping; monitoring; and capacity and knowledge building.<sup>171</sup> The parties are asked to include considerations for plant species on Annex II of the SPA/BD Protocol in their regulatory procedures and establish MPAs for their protection, in addition to other activities.

*Other habitat-related action plans*

Although they do not mention endangered species directly, the Updated Action Plan for the Conservation of the Coralligenous and Other Calcareous Bio-concretions in the Mediterranean Sea and the Action Plan for the Conservation of Habitats and Species Associated with Seamounts, Underwater Caves and Canyons, Aphotic Hard Beds and Chemo-synthetic

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<sup>167</sup> *Ibid*, part 2.2.

<sup>168</sup> *Ibid*, part 4.

<sup>169</sup> *Ibid*, part 5.4 and 5.5.

<sup>170</sup> UNEP MAP, *Updated Action Plan for the Conservation of Marine Vegetation in the Mediterranean Sea*, Decision IG 24/7, Annex V (2019).

<sup>171</sup> *Ibid* at "updated work programme and timetable".



Phenomena in the Mediterranean Sea (Dark Habitats Action Plan) are relevant to habitat conservation.<sup>172</sup>

**Potential effectiveness:** Relatively average because the majority of the listed species are covered by a recovery plan, but there is no implementation review.

#### 5.2.8 Habitat measures

In addition to the habitat protection obligations and recovery plans already mentioned, the SPA/BD Protocol encourages its parties to consider habitat needs of species at risk. One of the objectives for establishing protected areas under the Protocol is to safeguard habitats that are critical to the survival and recovery of endangered, threatened or endemic species.<sup>173</sup> Parties are asked to adopt protective measures such as regulation or prohibition of certain activities that are damaging to the environment or the species within protective areas.<sup>174</sup>

The Protocol also calls for the creation of the List of Specially Protected Areas of Mediterranean Importance (SPAMI List), which may include sites that are important for conserving the components of Mediterranean biodiversity and habitats of endangered (but, for some reason, not threatened) species.<sup>175</sup>

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<sup>172</sup> UNEP MAP, *Updated Action Plan for the Conservation of the Coralligenous and Other Calcareous Bioconcretions in the Mediterranean Sea*, Decision IG 22/12, Annex II (2016); UNEP MAP, *Action Plan for the conservation of habitats and species associated with seamounts, underwater caves and canyons, aphotic hard beds and chemo-synthetic phenomena in the Mediterranean Sea (Dark Habitats Action Plan)*, Decision IG 21/4, Annex V (2013).

<sup>173</sup> SPA/BD Protocol, art 4(c).

<sup>174</sup> SPA/BD Protocol, art 6.

<sup>175</sup> SPA/BD Protocol, art 8(1) and (2).

SPAMIs may be established on the high seas, as long as they are nominated by at least two neighbouring parties.<sup>176</sup>

**Potential effectiveness:** Relatively high because obligations to protect habitats of species at risk are included in the SPA/BD Protocol. There are also recovery plans for some habitats and marine protected areas have been established.

#### 5.2.9 Cross-sectoral cooperation

Article 3(4) of the Barcelona Convention directs the parties to take individual or joint actions through relevant international organizations to encourage implementation of the Convention and its Protocols. Article 3(2) of the SPA/BD Protocol further directs the parties to cooperate directly or through competent international bodies in sustainable use of marine biodiversity of the Mediterranean. Furthermore, SPA/BD parties are to establish cooperative programs through the RAC or relevant international organizations for the purposes of establishing MPAs and selecting and managing protected species.<sup>177</sup>

The secretariat of the Barcelona Convention has signed MOUs or other collaboration agreements with 13 intergovernmental organizations such as ACCOBAMS, London Convention and Protocol, Global Environment Facility, IMO, and World Bank.<sup>178</sup> Copies of these agreements are not publically available. According to the secondary sources, the MOU with GFCM, signed in 2012, focuses on five areas of cooperation including the promotion of ecosystem-based approaches and sustainable use of marine living resources, mitigation of

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<sup>176</sup> SPA/BD Protocol, art 9(1) and (2)(b).

<sup>177</sup> SPA/BD Protocol, art 21(1).

<sup>178</sup> “Partnerships”, online: *UNEP MAP* <[www.unep.org/unepmap/who-we-are/partnerships](http://www.unep.org/unepmap/who-we-are/partnerships)>.

fisheries impact on habitats and species, and protection of important marine areas.<sup>179</sup> The GFCM has since adopted a measure that prohibits retention and requires safe release of accidentally caught elasmobranch species listed on Annex II of the SPA/BD Protocol.<sup>180</sup>

**Potential effectiveness:** Relatively high because the governing instruments contain obligations to cooperate, and MOUs have been signed with the relevant intergovernmental bodies.

#### 5.2.10 Climate change

Climate change is not mentioned in the Barcelona Convention and SPA/BD Protocol. A working group consisting of international and government experts was established in 2008. It held a series of meetings on vulnerability and impact of climate change on Mediterranean biodiversity and compiled a report that was presented at the Ninth Meeting for Focal Points for SPAs, held in 2009.<sup>181</sup> In 2016, parties adopted the Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas.<sup>182</sup> The Framework identifies climate change as a contributing factor to increased extinction risk for some species. Sensitivity and adaptability of different species to environmental changes are identified as priorities for research.<sup>183</sup>

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<sup>179</sup> “Memorandum of Understanding between the United Nations Environment Programme/ Mediterranean Action Plan Secretariat to the Barcelona Convention and FAO General Fisheries Commission for the Mediterranean”, online: *UN* <[oceanconference.un.org/commitments/?id=20412](http://oceanconference.un.org/commitments/?id=20412)>.

<sup>180</sup> Fordham, Sonja V *et al*, “Elasmobranch Conservation Policy: Progress and Priorities” in Jeffrey C Carrier *et al*, eds, *Biology of Sharks and Their Relatives* (Boca Raton: CRC Press, 2022) 689.

<sup>181</sup> “Climate change & biodiversity”, online: *SPA/RAC* <[www.rac-spa.org/climate\\_change](http://www.rac-spa.org/climate_change)>.

<sup>182</sup> UNEP MAP, *Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas*, Decision IG 22/6 (2016).

<sup>183</sup> *Ibid*, para 48.

The UNEP/MAP Mid-Term Strategy 2016-2021 identifies climate change adaptation a cross-cutting theme.<sup>184</sup> Indicative key outputs under this theme include mainstreaming climate change adaptation activities into the implementation of the existing regional strategies and action plans, as well as incorporating climate change vulnerabilities in the development of new or updated strategies and plans.<sup>185</sup> However, climate change is barely mentioned in the regional strategies and action plans updated since the Mid-Term Strategy came into effect. The regional strategy for monk seal and the updated action plan for sea turtles, both adopted in 2019, suggest the need to study the impact of climate change on the species.<sup>186</sup> Climate change was identified as a threat in the action plan for marine birds, but no further recommendations were made.<sup>187</sup> The action plan for marine vegetation recognizes these species as carbon sinks and recommends protecting them through MPAs. The action plans for cetaceans and cartilaginous fishes are silent on climate change.

**Potential effectiveness:** Relatively average because there is a recognition of the need to incorporate climate change into the decision-making processes, but it is not required under the convention or protocol. There are also challenges in the implementation when it comes to marine species at risk.

#### 5.2.11 Ecosystem approach

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<sup>184</sup> UNEP MAP, *UNEP/MAP Mid-Term Strategy 2016-2021*, Decision IG 22/1 (2016).

<sup>185</sup> *Ibid.*, para 102.

<sup>186</sup> Decision IG 24/7, Annex II, *supra* note 140, para 16(i); Decision IG 24/7, Annex III, *supra* note 145, para 34(a)(h).

<sup>187</sup> Decision IG 23/8, Annex I, *supra* note 160, para 12.

The contracting parties to the Barcelona Convention have recognized the ecosystem approach as an overarching principle for the implementation of the convention, even though it is not explicitly mentioned in the Convention or the SPA/BD Protocol.<sup>188</sup> Since 2008 the parties have been following an agreed-upon roadmap that outlines steps towards achievement and maintenance of Good Environmental Status of the Mediterranean Sea and Coasts.<sup>189</sup>

Two ecological objectives, biodiversity and harvest of commercially important species, are directly applicable to species at risk.<sup>190</sup> The biodiversity objective has been defined as “biological diversity is maintained or enhanced. The quality and occurrence of coastal and marine habitats and the distribution and abundance of coastal and marine species are in line with prevailing physiographic, hydrographic, geographic, and climatic conditions.”<sup>191</sup> This means that there should be no further loss within species, between species, habitats and ecosystems.<sup>192</sup> The ecological objective for the commercially exploited species aims to have populations of selected commercially exploited fishes and shellfishes within safe biological limits capable of producing maximum sustainable yield.<sup>193</sup>

Despite the potential of the ecosystem approach to benefit species at risk, a lot of uncertainty remains. So far, the emphasis has been on agreeing on objectives and establishing a monitoring program.<sup>194</sup> The Integrated Monitoring and Assessment Guidance explains how to collect the necessary data on sea turtles, marine mammals, sea birds, plankton and habitat-

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<sup>188</sup> “The Ecosystem Approach”, online: *UNEP MAP* <[www.unep.org/unepmap/what-we-do/ecosystem-approach](http://www.unep.org/unepmap/what-we-do/ecosystem-approach)>.

<sup>189</sup> *Ibid.*

<sup>190</sup> UNEP MAP, *Implementing MAP ecosystem approach roadmap: Mediterranean Ecological and Operational Objectives, Indicators and Timetable for implementing the ecosystem approach roadmap*, Decision IG 20/4 (2012).

<sup>191</sup> “Implementation of the EcAp – Step 4”, online: *SPA/RAC* <[www.rac-spa.org/node/1312#eo1](http://www.rac-spa.org/node/1312#eo1)>.

<sup>192</sup> *Ibid.*

<sup>193</sup> *Ibid.*

<sup>194</sup> “The Ecosystem Approach (EcAp) – the 7 steps of the EcAp RoadMap”, online: *SPA/RAC* <[www.rac-spa.org/ecap#itema-5](http://www.rac-spa.org/ecap#itema-5)>.

forming species for the purposes of the ecological objective on biodiversity.<sup>195</sup> The parameters for assessing and monitoring the ecological objective for commercially harvested species are being developed by GFCM.<sup>196</sup> This raises a concern that fish species listed on Annex II that are no longer commercially viable are going to be left out. Development and review of relevant action plans and programmes is the last step in the implementation roadmap.<sup>197</sup> Both the monk sea recovery strategy and the sea turtle action plan mention that they contribute to the implementation of the ecosystem approach.<sup>198</sup>

**Potential effectiveness:** Relatively average because the Barcelona Convention and SPA/BD Protocol do not mention an ecosystem approach, nevertheless the programme has established a mechanism for its implementation.

#### 5.2.12 Sustainable development

Article 4(1) of the Barcelona Convention calls on parties to address marine pollution and “to protect and enhance the marine environment in that [Mediterranean Sea] Area so as to contribute towards its sustainable development.” To assist contracting parties in implementation, article 4(2) establishes the Mediterranean Commission on Sustainable Development (MCSD). It specifically directs parties to “take fully into account” MCSD’s recommendations.

Article 4(3) of the Barcelona Convention outlines specific obligations to protect the marine environment and contribute to its sustainable development. These include applying the precautionary and polluter pays principles, conducting environmental impact assessments and

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<sup>195</sup> UNEP MAP, *Integrated Monitoring and Assessment Guidance (2016)*, UNEP(DEPI)/MED IG 22/Inf.7.

<sup>196</sup> *Ibid.*

<sup>197</sup> “The Ecosystem Approach (EcAp) – the 7 steps of the EcAp RoadMap”, *supra* note 189.

<sup>198</sup> Decision IG 24/7, Annex II, *supra* note 140, para 20; Decision IG 24/7, Annex III, *supra* note 145, para 8.

promoting integrated coastal zone management.<sup>199</sup> There is also general commitment from the parties “to promote, within the international bodies considered to be competent by the Contracting Parties, measures concerning the implementation of programmes of sustainable development, the protection, conservation and rehabilitation of the environment and of the natural resources in the Mediterranean Sea Area.”<sup>200</sup>

Under the SPA/BD Protocol, general obligations include sustainable use of marine biodiversity in addition to its protection.<sup>201</sup>

The Protocol on Integrated Coastal Zone Management in the Mediterranean should be mentioned here as it aims to facilitate the sustainable development of coastal zones through “rational planning of activities” and sustainable use of natural resources.<sup>202</sup> Although it does not mention species at risk, the Protocol has features that can be indirectly beneficial. For example, it recognizes the importance of the ecosystems approach and the need to stay within the carrying capacity of the coastal zone.<sup>203</sup> It also directs parties to establish environmental impact assessment processes for projects that are “likely to have significant environmental effects” on the coastal zone.<sup>204</sup>

As mentioned, MCSA is established as an advisory body to the state parties by Article 4 of the Barcelona Convention. It is composed of 40 members consisting of representatives of contracting parties, local authorities, NGOs, socio-economic stakeholders, scientific community,

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<sup>199</sup> Barcelona Convention at art 4(3)(e).

<sup>200</sup> Barcelona Convention at art 4(6).

<sup>201</sup> SPA/BD Protocol, art 3.

<sup>202</sup> ICZM Protocol at art 5(a) and (c).

<sup>203</sup> ICZM Protocol art 6 (b),(c) and 9(1)(e).

<sup>204</sup> ICZM Protocol at art 19(1).

sustainable development IGOs, and regional parliamentary associations.<sup>205</sup> The constitutive documents explicitly mention that “efforts should be made to ensure participating of representatives from both the environmental and development fields.”<sup>206</sup> All participants have equal participatory rights in the workings of the Commission; but while contracting parties are permanent members, all other participants can serve a maximum of four biennia.<sup>207</sup>

The MCSD recommendations are first discussed at the meeting of the MAP focal points and then presented for considerations at COP.<sup>208</sup> The mandate of the Commission includes assisting parties with sustainable development policies, especially integration of environmental considerations; developing and implementing the Mediterranean Strategy for Sustainable Development (MSSD); promoting the exchange of best practices; and integrating sustainability into the MAP/Barcelona Convention system as a whole.<sup>209</sup>

The MSSD 2016-2025 was adopted by the parties at COP19 in 2016.<sup>210</sup> The Strategy is intended to implement the 2030 Agenda for Sustainable Development and the SDGs at the regional, sub-regional, and national levels.<sup>211</sup> The MCSD led the creation of the MSSD with the assistance from the Secretariat, RACs, state parties, and stakeholders.<sup>212</sup>

The MSSD identifies six objectives that “lie in the interface between environment and development”.<sup>213</sup> These are (1) Ensuring sustainable development in marine and coastal areas;

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<sup>205</sup> UNEP MAP, *Reform of the Mediterranean Commission on Sustainable Development (MCSD) and Updated MCSD Constitutive Documents, Decision IG 22/17, Annex I “Mediterranean Commission on Sustainable Development Composition”*, UNEP(DEPI)/MED IG 22/28 (2016) at para 2.

<sup>206</sup> *Ibid* at para 3.

<sup>207</sup> *Ibid* at para 5 and 9.

<sup>208</sup> *Ibid*, Terms of Reference at para 5.

<sup>209</sup> *Ibid*, para 4.

<sup>210</sup> UNEP MAP, *Mediterranean Strategy for Sustainable Development 2016-2025*, Decision IG 22/2 (2016).

<sup>211</sup> *Ibid* at 4.

<sup>212</sup> *Ibid*.

<sup>213</sup> *Ibid* at 5.



(2) Promoting resource management, food production and food security through sustainable forms of rural development; (3) Planning and managing sustainable Mediterranean cities; (4) Addressing climate change as a priority issue for the Mediterranean; (5) Transitioning towards a green and blue economy; and (6) Improving governance in support of sustainable development. The first objective is the most relevant to this discussion as it is meant to address biodiversity loss, ecosystem degradation, incidental catches of species at risk, and unsustainable exploitation of living resources.<sup>214</sup> The MSSD sets two targets under Objective 1: conserve at least ten percent of coastal and marine areas by 2020; and effectively regulate fishing and end overfishing, IUU and destructive practices, also by 2020.<sup>215</sup> Recommended actions under this objective include strengthening the implementation of the Barcelona Convention and its protocols and implementing the Ecosystem Approach Roadmap, as well as the SAPBIO.<sup>216</sup> Some actions recommended under Objective 6 are also relevant to the marine species at risk. These include application of the precautionary principle through environmental impact assessments and implementation of global and regional agreements “related to environmental sustainability.”<sup>217</sup>

**Potential effectiveness:** Relatively high because the Barcelona Convention contains an obligation to contribute to sustainable development, including by conducting environmental impact assessments; the Convention also establishes a specialized body dedicated to sustainable development.

### 5.2.13 Overall potential effectiveness

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<sup>214</sup> *Ibid* at 21.

<sup>215</sup> *Ibid* at 25.

<sup>216</sup> *Ibid* at 28.

<sup>217</sup> *Ibid* at 66.

The Mediterranean RSP was assessed relatively high on six out of the twelve reviewed factors, while receiving no “low” scores. Its institutional structure provides mechanisms for operationalization of complex concepts such as sustainable development and ecosystem approaches that require negotiations among parties. At the same time, parties are bound by clear legal obligations to protect species at risk and their habitats. This combination of factors suggests that the programme has relatively high potential to protect and recover marine species at risk.

### 5.3 East Africa



**Figure 3:** East Africa RSP<sup>218</sup>

The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention) was signed in 1985, came into force in 1996, and was subsequently amended in 2010.<sup>219</sup> The Nairobi Convention spans ten African countries along the coast of the Indian Ocean with Somalia in the north and South Africa in the south.<sup>220</sup> More than 400 islands and islets, including several island states, are

<sup>218</sup> “Eastern Africa region”, online: *UNEP* <[www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/eastern-africa](http://www.unep.org/explore-topics/oceans-seas/what-we-do/working-regional-seas/regional-seas-programmes/eastern-africa)>.

<sup>219</sup> “Who we are”, online: *UNEP Nairobi Convention* <[www.unenvironment.org/nairobiconvention/who-we-are](http://www.unenvironment.org/nairobiconvention/who-we-are)>; *The Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean (Amended Nairobi Convention)*, UNEP/(DEPI)/EAF/COP8/2015/10 (Nairobi Convention).

<sup>220</sup> “Contracting Parties”, online: *UNEP Nairobi Convention* <[www.unep.org/nairobiconvention/who-we-are/contracting-parties](http://www.unep.org/nairobiconvention/who-we-are/contracting-parties)>.

found in the convention area.<sup>221</sup> The Nairobi Convention has three protocols; the Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region (Nairobi Biodiversity Protocol)<sup>222</sup> is the most relevant to this discussion.

### 5.3.1 Institutional structure

UNEP fulfills the role of the secretariat for the Nairobi Convention.<sup>223</sup> There are no RACs, although UNEP made a commitment to their establishment at COP3 in 2001.<sup>224</sup> The ordinary meetings of the contracting parties to the Nairobi Biodiversity Protocol are held every two years and are tasked with reviewing the implementation of the Protocol; monitoring the establishment of the network of protected areas; and making changes to the Annexes, among other tasks.<sup>225</sup> A bureau of the contracting parties is elected at each COP to assist the secretariat at the meetings and intersessionally.<sup>226</sup>

Additional bodies work with the Nairobi Convention, although the nature of the relationships are difficult to determine. The Consortium for Conservation of Coastal and Marine Ecosystems in the West Indian Ocean (WIO-C) is a partnership between major NGOs and other organizations in the region “anchored in the Nairobi Convention.”<sup>227</sup> Its objectives include

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<sup>221</sup> BirdLife International, *Status of Birds in the Marine and Coastal Environment of the Nairobi Convention Area: Regional Synthesis Report* (Nairobi: UNEP/Nairobi Convention Secretariat, 2015), 11.

<sup>222</sup> Adopted Nairobi 21 June 1985, entered into force 30 May 1996.

<sup>223</sup> Nairobi Convention, art 17.

<sup>224</sup> UNEP Nairobi Convention, *Third Meeting of the Contracting Parties to the Convention for the Protection, Management and Development of the Marine Environment of the Eastern African Region* (2001), 20.

<sup>225</sup> Nairobi Biodiversity Protocol, art 21 and Nairobi Convention, art 18(1).

<sup>226</sup> “Conference of Parties (COPs)”, online: *UNEP Nairobi Convention* <[www.unep.org/nairobiconvention/who-we-are/conference-parties-cops](http://www.unep.org/nairobiconvention/who-we-are/conference-parties-cops)>.

<sup>227</sup> UNEP Nairobi Convention, *Report of the fifth meeting of the Contracting Parties to the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region*, UNEP(DEPI)/EAF/CP.5/10 (2007) at para 40.

strengthening the implementation of the Nairobi Convention’s work program through networking, coordination and resource mobilization.<sup>228</sup>

The Forum of Academic and Research Institutions in the Western Indian Ocean Region (FARI) was established by the secretariat of the Nairobi Convention with the Western Indian Ocean Marine Science Association (WIOMSA) in response to a decision adopted by the parties at COP4 on establishing a network of academic institutions in the region.<sup>229</sup> FARI’s objectives focus on cooperation and information sharing, as well as linking science and policy in the absence of a technical advisory body to the Convention.<sup>230</sup> FARI also acts as a technical advisor to the Science to Policy Dialogues, meetings organized by the secretariat and WIOMSA in order to facilitate science-based decision-making by contracting parties.<sup>231</sup> Although a summary of recommendations was issued following the latest Science to Policy Meeting in 2021, it is unclear how these recommendations were formulated and what weight they carry at COPs.<sup>232</sup>

The Western Indian Ocean – Marine Turtle Task Force (WIO-MTTF) is a joint body between the Nairobi Convention and the Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia (IOSEA Marine Turtle MOU), a CMS daughter instrument.<sup>233</sup> WIO-MTTF is supposed to

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<sup>228</sup> “About WIO-C”, online: *WIO-C* <[wio-c.org/about-us/](http://wio-c.org/about-us/)>.

<sup>229</sup> “Concept Note, WIO Regional Science to Policy Meeting, 23-25 March 2021”, online (pdf): *UNEP Nairobi Convention* <[www.nairobiconvention.org/clearinghouse/sites/default/files/Concept%20Note%20-%20WIO%20Science%20to%20Policy%20Dialogue\\_2021.pdf](http://www.nairobiconvention.org/clearinghouse/sites/default/files/Concept%20Note%20-%20WIO%20Science%20to%20Policy%20Dialogue_2021.pdf)>.

<sup>230</sup> “Concept Note, Forum of Academic and Research Institutions in the Western Indian Ocean Region (FARI)”, online: *UNEP Nairobi Convention* <[nairobiconvention.org/clearinghouse/node/380](http://nairobiconvention.org/clearinghouse/node/380)>.

<sup>231</sup> *Ibid.*

<sup>232</sup> “Summary of recommendations from discussions at the 2021 Science to Policy Dialogue”, online: *UNEP Nairobi Convention* <[www.nairobiconvention.org/clearinghouse/node/555](http://www.nairobiconvention.org/clearinghouse/node/555)>.

<sup>233</sup> WIO-MTTF, *Proposed Changes to the Terms of Reference of the Western Indian Ocean Marine Turtle Task Force*, CMS/IOSEA/WIO-MTTF-9/Doc.5 (2021), 2.

facilitate the implementation of the IOSEA Marine Turtle MOU and contribute to the program of work of the Nairobi Convention.<sup>234</sup>

Additional groups established by COPs that advise and/or coordinate with the Nairobi Convention are the Group of Experts on Marine Protected Areas, Legal and Technical Working Group in the Western Indian Ocean, the Coral Reef Task Force, and the WIO Mangrove Network.<sup>235</sup>

**Potential effectiveness:** Relatively average because although the East Africa RSP has an established institutional structure with key decision-making elements, it lacks a specialized RAC or committee dedicated to biodiversity.

### 5.3.2 Parties and observers

Ten countries are parties to the Nairobi Convention and its Biodiversity Protocol: Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and the Republic of South Africa.<sup>236</sup> France is the only developed party. All states parties to the Nairobi Convention are also parties to the Nairobi Biodiversity Protocol.

The President of the Bureau has authority to invite to participate in meetings or conferences without a right to vote states that are not parties to the Nairobi Convention, representatives of any UN body, intergovernmental organizations or international NGOs that

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<sup>234</sup> *Ibid.*

<sup>235</sup> “Expert Groups”, online: *UNEP Nairobi Convention* <[www.unep.org/nairobiconvention/who-we-are/expert-groups](http://www.unep.org/nairobiconvention/who-we-are/expert-groups)>.

<sup>236</sup> “Contracting Parties”, *supra* note 220.

have a direct concern or specialized expertise in the protection and development of the marine and coastal environment of the Eastern African region.<sup>237</sup>

Thirty two entities are listed as partners and stakeholders of the Nairobi Convention.<sup>238</sup> Ten of them can be identified as regional and international NGOs, six research institutions, five UN organizations, and the rest being government agencies of the parties, donor governments and intergovernmental organizations. It is beyond the scope of this work to assess the actual involvement of observers in the workings of the Nairobi RSP.

**Potential effectiveness:** Relatively high because almost all parties to the Nairobi Convention are developing states suggesting a commonality in power, priorities, and resources. At the same time, all states that are parties to the framework convention are parties to the biodiversity protocol maximizing the instrument's reach in the region. Observers are also allowed to participate in the workings of the programme, and there does not appear to be strict eligibility criteria.

### 5.3.3 Obligations

Article 11 of the Nairobi Convention directs parties to protect biodiversity, as well as rare and fragile ecosystems, along with rare, endangered and threatened species and their habitats.<sup>239</sup> Parties are asked to establish protected areas and regulate or prohibit activities that are likely to

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<sup>237</sup> UNEP Nairobi Convention, *Rules of Procedure for Meetings and Conferences of the Contracting Parties to the Convention for the Protection, Management and Development of the Coastal and Marine Environment of the Eastern African Region*, UNEP(DEPI)/EAF/NEG.3/ICZM/INF DOC5 (2016), Rule 47.

<sup>238</sup> "Partners and stakeholders", online: *UNEP Nairobi Convention* <[www.unep.org/nairobiconvention/who-we-are/partners-and-stakeholders](http://www.unep.org/nairobiconvention/who-we-are/partners-and-stakeholders)>.

<sup>239</sup> Nairobi Convention, art 11(1).

have adverse effects on the species, ecosystems or biological processes protected within these areas.<sup>240</sup>

The Nairobi Biodiversity Protocol imposes a general obligation on the parties to maintain essential ecological processes, preserve genetic diversity, and ensure sustainable use of harvested resources.<sup>241</sup> The need to protect rare and fragile ecosystems as well as rare, depleted, threatened and endangered species is specifically mentioned.<sup>242</sup>

The Nairobi Biodiversity Protocol has four annexes listing four groups of species. Annex I is for species of wild plants.<sup>243</sup> Parties are required “as appropriate” to prohibit uncontrolled picking, collecting, cutting, uprooting, possessing or selling listed species as well as activities that adversely affect these species’ habitats.<sup>244</sup> Annex II lists endangered species of wild fauna that the parties agreed to provide with the strictest protection.<sup>245</sup> With regard to these species, the parties are directed, “where required” to prohibit capture, keeping and killing; damage or destruction of critical habitats; disturbance, especially during periods of breeding, rearing and hibernation; destruction or keeping of eggs; and possession and trade of parts and derivatives.<sup>246</sup> Furthermore, the parties are asked to regulate, and “where required” prohibit activities that adversely affect habitats of listed species.<sup>247</sup> Harvestable species are found on Annex III. Parties have to regulate exploitation of the listed species so as to restore and maintain their populations at optimum levels.<sup>248</sup> To accomplish this objective, parties are required to develop and implement management plans which incorporate recommended measures such as restrictions on

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<sup>240</sup> Nairobi Convention, art 11(2).

<sup>241</sup> Nairobi Biodiversity Protocol, art 2(1).

<sup>242</sup> *Ibid.*

<sup>243</sup> Nairobi Biodiversity Protocol, art 3.

<sup>244</sup> *Ibid.*

<sup>245</sup> Nairobi Biodiversity Protocol, art 4.

<sup>246</sup> *Ibid.*

<sup>247</sup> *Ibid.*

<sup>248</sup> Nairobi Biodiversity Protocol, art 5(2).



the means of capture, closed seasons, temporary or local prohibition of exploitation, regulation of trade, and establishment of protected areas.<sup>249</sup> Finally, Annex IV is for protected migratory species. These species are also included on Annexes II and III, and parties agree to coordinate their protective efforts.<sup>250</sup>

Exemptions for traditional activities of local populations appear to be limited to activities within protected areas.<sup>251</sup> These exemptions are not to jeopardize the protected ecosystems or their biological processes and not cause the extinction or substantial reduction in species, especially migratory, endemic, rare, depleted, threatened or endangered species.<sup>252</sup> Exemptions have to be reported to the secretariat.<sup>253</sup>

With respect to scientific and technical research and cooperation, the parties are required to encourage scientific research on their protected areas, as well as ecosystems and wild species.<sup>254</sup> They are to exchange their research and results, as well as coordinate their methods.<sup>255</sup> They are also asked to provide technical assistance related to the establishment and management of protected areas and protection of wild species.<sup>256</sup> Technical assistance should include training of scientific, technical and managerial personnel.<sup>257</sup>

### Proposed amendments

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<sup>249</sup> Nairobi Biodiversity Protocol, art 5(2).

<sup>250</sup> Nairobi Biodiversity Protocol, art 6.

<sup>251</sup> Nairobi Biodiversity Protocol, art 12(1).

<sup>252</sup> *Ibid.*

<sup>253</sup> Nairobi Biodiversity Protocol, art 12(2).

<sup>254</sup> Nairobi Biodiversity Protocol, art 17(1).

<sup>255</sup> Nairobi Biodiversity Protocol, art 17(2).

<sup>256</sup> Nairobi Biodiversity Protocol, art 19.

<sup>257</sup> *Ibid.*

In 2018 the parties initiated the process of amending the Nairobi Biodiversity Protocol and its annexes.<sup>258</sup> According to the preparatory documents, the Protocol does not adequately articulate the ecosystem-based management approach and elaborate on the interconnectedness between habitats and species. Because the Protocol is species-centered, it was described as limiting “the scope for protection of ecosystems in the Western Indian Ocean region.”<sup>259</sup> The amending process is seen as an opportunity to bring the Protocol in line with international documents adopted since 1985 including the 1997 Jakarta Mandate on the Conservation and Sustainable Use of Marine and Coastal Biological Diversity under the CBD, the Aichi Biodiversity Targets, the Paris Agreement and the 2030 Agenda on Sustainable Development.<sup>260</sup>

In the 2018 Draft Revised Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern Africa Region the focus on biodiversity and ecosystems is incorporated into the general obligations in Article 2.<sup>261</sup> These include cross-sectoral integration of domestic conservation strategies and cooperation through competent international and regional organizations in sustainable use of biodiversity and application of an integrated ecosystem approach. The need to protect and conserve threatened species is recognized in the preamble and throughout the instrument. The four annexes are kept and the obligations with respect to the listed species remain largely unchanged. Obligations to cooperate regionally for the protection and conservation of species and their habitats<sup>262</sup> as well as conduct environmental impact

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<sup>258</sup> UNEP Nairobi Convention, *Report of the Contracting Parties to the Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean Region on the work of their ninth meeting*, UNEP/EAF/CP.9/5 (2018), Decision CP.9/5.

<sup>259</sup> UNEP Nairobi Convention, *Draft decisions for consideration and adoption by the Contracting Parties at their ninth meeting*, UNEP/EAF/CP.9/3 (2018), Decision CP.9/5.

<sup>260</sup> *Ibid.*

<sup>261</sup> UN Environment Document Repository, *Draft Revised Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern Africa Region* (2018), <[wedocs.unep.org/handle/20.500.11822/25673](http://wedocs.unep.org/handle/20.500.11822/25673)> [Draft Revised Protocol].

<sup>262</sup> Draft Revised Protocol, art 6A.

assessment<sup>263</sup> are introduced. The parties are to agree on criteria for listing species in the Annexes.<sup>264</sup>

**Potential effectiveness:** Relatively average but leaning towards high because the biodiversity protocol contains obligations towards species at risk, but these obligations are general in nature.

#### 5.3.4 Listing process

Contracting parties have a right to propose at COPs amendments to the Annexes.<sup>265</sup> A two-thirds majority is needed for a proposal to be adopted.<sup>266</sup> A party can take a reservation if it disagrees with an amendment.<sup>267</sup> Proposals have to be made in writing.<sup>268</sup> Information is unavailable online on the criteria used to compile the original annexes or that has to be followed when evaluating subsequent listing proposals. At the same time, review of the available information suggests that there might be confusion over the role of the Annexes. In 2015, BirdLife International prepared a report on the status of marine and coastal birds in the Nairobi Convention area which discussed the shortcomings of the existing bird list in Annex II and offered recommendations.<sup>269</sup> A total of 108 species of birds was proposed for inclusion on the new Annex II. The fact that 52 of these species have been assessed by IUCN as Near Threatened or Least Concern raises questions about the methodology employed to compile the proposed list,

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<sup>263</sup> Draft Revised Protocol, art 20A.

<sup>264</sup> Draft Revised Protocol, art 9(3)(b).

<sup>265</sup> Nairobi Convention, art 21(2)(a).

<sup>266</sup> Nairobi Convention, art 21(2)(b); UNEP(DEPI)/EAF/NEG.3/ICZM/INF DOC5, *supra* note 237, rule 37.

<sup>267</sup> Nairobi Convention, art 21(2)(d).

<sup>268</sup> UNEP(DEPI)/EAF/NEG.3/ICZM/INF DOC5, *supra* note 237, rule 26.

<sup>269</sup> BirdLife International, *supra* note 221.

given that Annex II is for endangered species of fauna subject to the strictest protection under the Nairobi Biodiversity Protocol.

At the Science to Policy Forum in 2018, WCS presented a report on the status of chondrichthyans in the Western Indian Ocean and indicated that it intended to propose a list of species for inclusion in Annexes II and III at COP9 in 2018.<sup>270</sup> Twenty-one shark species and 18 ray species were recommended for listing in Annex II (strict protection). An additional 53 shark species and 20 ray species were recommended for inclusion in Annex III (sustainable use).<sup>271</sup> However, these listing proposals were not made at COP9.<sup>272</sup> Instead, parties adopted a decision requesting the secretariat and partners to expedite the process of finalization and validation of the status report on sharks and rays, including the regional roadmap, and report before the next COP.<sup>273</sup> Parties also requested the secretariat to organize consultations in support of the amending process of the Nairobi Biodiversity Protocol and its Annexes. COP10 was held in November 2021 but the meeting report is not yet available online. The actual species lists proposed by WCS are also not posted.

**Potential effectiveness:** Relatively low because it does not appear that there are agreed upon listing criteria and the listing proposals are not reviewed by a technical body.

### 5.3.5 Compliance review

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<sup>270</sup> WCS, “Conservation and Management of Chondrichthyans (Sharks, Rays and Chimaeras) In the Western Indian Ocean”, online: *UNEP Nairobi Convention* <[www.unep.org/nairobiconvention/index.php/events/conference/science-policy-forum-western-indian-ocean-wio-region](http://www.unep.org/nairobiconvention/index.php/events/conference/science-policy-forum-western-indian-ocean-wio-region)>.

<sup>271</sup> UNEP Nairobi Convention, *Focal Points Meeting of the Contracting Parties to the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean Region (Nairobi Convention)*, UNEP/NC/FP2021/COP9/en (2021), para 24.

<sup>272</sup> UNEP/EAF/CP.9/5, *supra* note 258.

<sup>273</sup> *Ibid*, Decision CP. 9/5, para 3.

Article 18 of the Nairobi Biodiversity Protocol outlines exchange of information, and it requires parties to forward to the secretariat information on the measures taken to implement the instrument.<sup>274</sup> Timelines for the information exchange are not provided. No changes to these provisions are found in the 2018 Draft Revised Protocol.

Review of the implementation of work plans and decisions is done at COP.<sup>275</sup> Reports of the executive director on the implementation of the Nairobi Convention presented at the last two COPs do not address national level measures.<sup>276</sup> They are quite general and contain multiple identical paragraphs describing activities of the major projects, such as the Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms (WIO-LME SAPPHERE). The review of the Decision CP.8/9 on threatened and endangered marine species, for the most part, paraphrased the decision without providing any updates on implementation.<sup>277</sup> It did mention a technical workshop that was organized pursuant to this decision to review the conservation status of sharks and rays in the region and develop a road map for their protection and management.<sup>278</sup> Review of the Decision CP.9/11 on development of marine protected areas and critical habitats outlooks mentioned that coral reef monitoring was discussed at the latest Science to Policy dialogue meeting and that guidelines on mangrove and seagrass restoration were developed.<sup>279</sup> The Marine Protected Areas Outlook, reviewing MPAs in the region, was also produced.<sup>280</sup>

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<sup>274</sup> Nairobi Biodiversity Protocol, art 18(1)(b)(i).

<sup>275</sup> UNEP/EAF/CP.10/INF/1, *supra* note 312.

<sup>276</sup> *Ibid*; UNEP/EAF/CP.9/4, *supra* note 309.

<sup>277</sup> UNEP/EAF/CP.9/4, *ibid*, para 64.

<sup>278</sup> *Ibid*, para 65.

<sup>279</sup> UNEP/EAF/CP.10/INF/1, *supra* note 312, para 72-73.

<sup>280</sup> *Ibid*, para 75. See “Marine Protected Areas Outlook” (16 July 2021), online: *UNEP* <[www.unep.org/resources/report/marine-protected-areas-outlook](http://www.unep.org/resources/report/marine-protected-areas-outlook)>.

**Potential effectiveness:** Relatively low because compliance review mechanisms in the East Africa RSP are limited to reporting obligations under the Nairobi Convention.

### 5.3.6 Protected species

Over 150 terrestrial and marine species are listed on the four Annexes to the Nairobi Biodiversity Protocol. The listed species are as follows:

#### Annex I

Plants – 11 species

- All terrestrial

#### Annex II

Mammals – 10 species, plus all *Lemur* species

- Three marine - dugong, humpback whale and blue whale

Birds – 91 species

- At least two are coastal/marine - Mascarene black petrel and Madagascar fish eagle

Reptiles – 11 species

- Three marine - olive ridley, loggerhead and leatherback sea turtles

Molluscs – 6 species

- All marine

Crustaceans – 1 species

- Coconut crab

Cnidarians – 1 species, plus all *Cirrhipathes* species (black coral)

Insects – 2 species

#### Annex III

A diverse mix – 20 species

- Three marine – spiny lobster, green sea turtle and hawksbill sea turtle

#### Annex IV

Mammals – 3 species

- All marine - dugong, humpback whale and blue whale

Reptiles – 5 species

- All marine - green, hawksbill, olive ridley, loggerhead and leatherback sea turtles

A report prepared by BirdLife International found that the list of bird species included in Annex II was outdated and incomplete. Some species were already extinct or outside the Convention area, and there were no seabirds.<sup>281</sup> The authors proposed a revised list which is discussed in the next section on the listing process.

**Potential effectiveness:** Relatively average because the annexes of protected species include terrestrial species potentially diverting focus from marine species at risk.

### 5.3.7 Recovery plans

The need to protect endangered species is repeatedly mentioned in the documents of the Nairobi Biodiversity Protocol, but there are no action plans and it is unclear if there are any species-specific programs.

In 2015, parties adopted a decision urging each other to build partnerships and strengthen their enforcement capacity to reduce illegal exploitation and trade in threatened and endangered marine species.<sup>282</sup> They also urged each other to implement the MOU on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South East Asia and “establish” sites of importance to sea turtles in the region.<sup>283</sup> In 2018, parties requested the secretariat and partners to develop a concept paper on mitigation options to minimize the impact

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<sup>281</sup> BirdLife International, *supra* note 221, 7.

<sup>282</sup> UNEP/(DEPI)/EAF/COP8, *supra* note 219, Decision CP8/9.

<sup>283</sup> *Ibid.*

of development on biodiversity.<sup>284</sup> This concept paper was to be presented at COP10 in 2021, but the report from that meeting is not available yet.

The latest work programme for the implementation of the Nairobi Convention (2022-2024) identifies assessment and conservation of critical habitats and endangered species as one of the four priority areas.<sup>285</sup> The focus will be on vulnerable biodiverse areas important to threatened species. Building capacity in marine protected areas, marine spatial planning, activities to mitigate impacts of underwater noise, and sustainable use of mangroves are mentioned in planned activities.<sup>286</sup>

At the most recent Partners' meeting in 2021, participants recommended enhancing conservation of critical habitats and endangered species through management of MPAs in areas identified as climate refugia, protection of sharks and rays, and implementation of projects aimed at mangroves and other critical habitats.<sup>287</sup> Other recommended activities included promotion of other effective area-based conservation measures and addressing IUU fishing.<sup>288</sup>

Similarly, the 2021 Western Indian Ocean Regional Science to Policy forum advanced eight recommendations on assessment and conservation of critical habitats and endangered species closely following the presentations made at the workshop. The recommendations include promoting the protection of sharks and rays in the region and requesting states to “implement their binding commitments to multilateral agreements to which they are party”;<sup>289</sup> developing of a regional mangrove vision and strategy framework; prioritizing coral reefs within marine spatial

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<sup>284</sup> UNEP/EAF/CP.9/5, *supra* note 258, Decision CP. 9/5, para 4.

<sup>285</sup> UNEP Nairobi Convention, *Proposed work programme for the period 2022–2024 for the implementation of the Nairobi Convention*, UNEP/EAF/CP.10/2 (2021), para. 36.

<sup>286</sup> *Ibid.*, para 44-50.

<sup>287</sup> Nairobi Convention Partners' Meeting – Meeting Report, 30-31 August 2021, virtual”, online: *UNEP Nairobi Convention* <[www.nairobiconvention.org/clearinghouse/node/813](http://www.nairobiconvention.org/clearinghouse/node/813)>, para 2.

<sup>288</sup> *Ibid.*, para 1 and 4.

<sup>289</sup> The majority of the parties to the Nairobi Convention are also parties to CMS and CITES.



planning and other national policies; reviewing the impact of underwater noise on marine species; developing and improving data collection and monitoring processes.<sup>290</sup>

**Potential effectiveness:** Relatively low because there are no indications in the reviewed material that recovery plans for listed species have been developed.

#### 5.3.8 Habitat measures

Parties to the Nairobi Convention are directed to take measures individually or jointly to protect rare and fragile ecosystems, as well as habitats of rare, threatened and endangered species.<sup>291</sup> They are also asked to establish protected areas and regulate activities that are likely to have adverse effects on the features that are being protected.<sup>292</sup> These obligations are reinforced and expanded in the Nairobi Biodiversity Protocol.<sup>293</sup> Critical habitats, especially for rare, endangered, endemic and migratory species are specifically noted as needing protection through protected areas.<sup>294</sup> A suite of protective measures is recommended, including regulations of waste discharge, fishing and hunting, as well as exploitation of the sea bed.<sup>295</sup> Parties are asked to notify the secretariat of any established protected areas and ensure that the public are aware of their boundaries, regulations and benefits.<sup>296</sup> The Nairobi Biodiversity Protocol

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<sup>290</sup> “Meeting Report for the Western Indian Ocean Regional Science to Policy Workshop” (2021), online: *UNEP Nairobi Convention* <[www.nairobiconvention.org/nairobi-convention-projects/the-western-indian-ocean-large-marine-ecosystems-strategic-action-programme-policy-harmonisation-and-institutional-reforms-wio-lme-sapphire/sapphire-progress/](http://www.nairobiconvention.org/nairobi-convention-projects/the-western-indian-ocean-large-marine-ecosystems-strategic-action-programme-policy-harmonisation-and-institutional-reforms-wio-lme-sapphire/sapphire-progress/)>.

<sup>291</sup> Nairobi Convention, art 11(1).

<sup>292</sup> Nairobi Convention, art 11(2).

<sup>293</sup> Nairobi Biodiversity Protocol, art 2, 8, 10, 11, 13-16.

<sup>294</sup> Nairobi Biodiversity Protocol, art 8(3).

<sup>295</sup> Nairobi Biodiversity Protocol, art 10(b),(d) and (g).

<sup>296</sup> Nairobi Biodiversity Protocol, art 14-15.

envisages the establishment of a network of protected areas in the East Africa region.<sup>297</sup> Parties are to cooperate in the selection, management, as well as research of protected areas and meet at least once every two years to discuss scientific, administrative and legal measures of common interest and make recommendations.<sup>298</sup> They are to allowed to make changes in the delimitation or legal status of a protected area only for “significant reasons, taking into account the need to protect the environment and according to the rules and obligations provided in this Protocol.”<sup>299</sup>

The Draft Revised Protocol introduces new obligations and ideas. Specifically it directs parties to adopt management plans for protected areas and recommends activities that should be included such as monitoring, financing and involvement of local communities.<sup>300</sup> It also introduces the concept of listing Protected Areas of Western Indian Ocean Importance (PAWIOI).<sup>301</sup> One of the proposed criteria for identifying PAWIOI includes habitats of endangered species.<sup>302</sup> The Draft Revised Protocol outlines procedures for establishing and listing PAWIOI including for areas on the high seas or within disputed national boundaries.<sup>303</sup>

At COP9 in 2018, parties adopted a decision urging each other to “support and promote blue ocean carbon schemes in the management and protection of critical marine and coastal ecosystems and habitats, including mangroves, sea grasses and salt marshes.”<sup>304</sup> They also decided to support monitoring of coral reefs and asked the secretariat and partners to strengthen collaborative arrangements in this regard across the region. Finally, parties requested the

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<sup>297</sup> Nairobi Biodiversity Protocol, art 16.

<sup>298</sup> Nairobi Biodiversity Protocol, art 16, 17 and 18(2).

<sup>299</sup> Nairobi Biodiversity Protocol, art 20.

<sup>300</sup> Draft Revised Protocol, art 10A(2)(b), (c) and (d).

<sup>301</sup> Draft Revised Protocol, art 10B.

<sup>302</sup> Draft Revised Protocol, art 10B(c).

<sup>303</sup> Draft Revised Protocol, art 10C.

<sup>304</sup> UNEP Nairobi Convention, *Development of marine protected areas and critical habitats outlooks*, UNEP/EAF/CP.9/5 (2018), Decision CP.9/11.

secretariat to prepare periodic thematic outlooks on the state of the marine environment, including habitats such as coral reefs, seagrasses, and mangroves.

At the next COP in 2021, parties urged each other to establish a network of MPAs and other effective area-based conservation measures, “taking into account climate refugia for threatened habitats and species.”<sup>305</sup> Parties also requested the secretariat to support development of a regional mangrove action plan with the assistance of WWF, IUCN, Wetlands International and the government of Germany.<sup>306</sup>

A total of 143 MPAs, amounting to 6.9 per cent of the EEZs, have been designated by parties to the Nairobi Convention.<sup>307</sup> However, evaluation of management effectiveness showed that although all countries had legal and institutional frameworks that met best practice, the scores on the remaining 19 parameters, such as biodiversity knowledge and understanding, as well as staff development programs, did not meet the minimum standard.<sup>308</sup>

**Potential effectiveness:** Relatively average because the Nairobi Convention and the biodiversity protocol contain obligations to protect habitats of listed species. Marine protected areas have been established within the programme area, but there are no recovery plans for critical habitats.

### 5.3.9 Cross-sectoral cooperation

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<sup>305</sup> UNEP Nairobi Convention, *Area-based Planning Tools for Sustainable Blue Economy*, UNEP/EAF/CP.10/3 (2021), Decision CP.10/8.

<sup>306</sup> UNEP Nairobi Convention, *Projects and Partnerships*, UNEP/EAF/CP.10/3 (2021), Decision CP.10/12, para 2(d).

<sup>307</sup> “Marine Protected Areas (MPAs) in the Western Indian Ocean region” (2021), online: *UNEP Nairobi Convention* <nairobiconvention.org/clearinghouse/node/410>.

<sup>308</sup> *Ibid*, 9.

Article 4(4) of the Nairobi Convention directs the parties to cooperate with the competent international organization to implement the Convention and its Protocols.

UNEP, on behalf of the Nairobi Convention, has entered into MOUs with the Southern African Development Community, Macquarie University, Port Management Association of Eastern and Southern Africa, and the South West Indian Ocean Fisheries Commission (SWIOFC).<sup>309</sup>

The most relevant to this research project is the MOU with SWIOFC which was signed in 2019 for the duration of three years with an option to renew for additional three-year terms.<sup>310</sup> The objectives of this MOU are to increase and integrate services provided to the members of the two organizations and avoid duplication.<sup>311</sup> The collaboration is to focus on joint projects, capacity-building and training, knowledge-sharing, and advocacy through joint events, in addition to other activities as determined necessary.<sup>312</sup> This includes encouraging information sharing between the organizations on the topics of mutual interest.<sup>313</sup> Protection of biodiversity from anthropogenic threats through assessments and action plans with a particular interest in projects for sharks, rays, and sea turtles, was specifically identified as a potential area of collaboration.<sup>314</sup> Other areas include management of negative environmental impacts on fisheries, promotion of ecosystem approaches and area-based management tools, and adaptation and mitigation of the impacts of climate change. Strengthening the partnership between the

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<sup>309</sup> “Information Documents – The 10th Conference of Parties to the Nairobi Convention (COP10)”, online: *UNEP Nairobi Convention* <[www.nairobiconvention.org/clearinghouse/node/813](http://www.nairobiconvention.org/clearinghouse/node/813)>.

<sup>310</sup> “Memorandum of Understanding between the Food and Agriculture Organization of the United Nations (“FAO”) on behalf of the South West Indian Ocean Fisheries Commission and the United Nations Environment Programme (“UNEP”) on behalf of the Nairobi Convention” (2019), online: *UNEP Nairobi Convention* <[www.nairobiconvention.org/clearinghouse/node/813](http://www.nairobiconvention.org/clearinghouse/node/813)>, art 13.

<sup>311</sup> *Ibid*, art. 1.

<sup>312</sup> *Ibid*, art 3(1).

<sup>313</sup> *Ibid*, art 4.

<sup>314</sup> *Ibid*, Annex, para 1.

Nairobi Convention and SWIOFC was identified as one of the priority activities in the work programme 2022-2024.<sup>315</sup>

**Potential effectiveness:** Relatively average, leaning towards high because the Nairobi Convention has an obligation to cooperate with competent international organizations, and an MOU has been signed with the relevant fisheries management body in the region. However, there is no MOU with the IMO.

#### 5.3.10 Climate change

The Nairobi Convention and its Biodiversity Protocol are silent with respect to climate change. The Regional Climate Change Strategy for the Nairobi Convention was developed with the support from the Western Indian Ocean Marine Science Association (WIOMSA) and published in 2016.<sup>316</sup> Parties are urged to incorporate the Strategy's recommendations into domestic projects and policies.<sup>317</sup> The strategy recognizes that climate change poses a threat to biodiversity and that preservation of biodiversity is needed for ecosystem resilience but there are no specific mentions of endangered species.<sup>318</sup> Parties have also agreed to develop a regional plan to monitor and respond to ocean acidification.<sup>319</sup>

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<sup>315</sup> UNEP/EAF/CP.10/2, *supra* note 278, para 58(l).

<sup>316</sup> UNEP Nairobi Convention, *Progress in the implementation of the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean Region*, UNEP/EAF/CP.9/4 (2018), para 61.

<sup>317</sup> *Ibid.*, para. 63.

<sup>318</sup> "Climate Change Strategy for the Nairobi Convention" (2016), *UNEP Nairobi Convention* <[wedocs.unep.org/handle/20.500.11822/25676](http://wedocs.unep.org/handle/20.500.11822/25676)>.

<sup>319</sup> UNEP Nairobi Convention, *Progress in the implementation of the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean Region*, UNEP/EAF/CP.10/INF/1 (2021), para. 65-67.

**Potential effectiveness:** Relatively average but leaning towards low because although there is a regional climate change strategy, it does not contain activities that directly target marine species at risk.

#### 5.3.11 Ecosystem approach

The Nairobi Convention mentions the promotion of integrated coastal zone management as one of the relevant implementation principles.<sup>320</sup> It does not mention an ecosystem approach. The Biodiversity Protocol is also silent in this regard.

Promoting the use of ecosystem-based management approaches is one of the objectives under the 2022-2024 work programme.<sup>321</sup> However, details of what would be involved are not provided. The Nairobi Convention secretariat is an implementing partner of the Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms (WIO-LME SAPPHIRE), a six-year project funded by GEF.<sup>322</sup> Implementation of SAPPHIRE is included in the 2022-2024 work programme.<sup>323</sup> One of the outcomes of the project is stress reduction through ecosystem-based practices among artisanal and subsistence fisheries, which aims to achieve a 30 per cent reduction in catch retention of

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<sup>320</sup> Nairobi Convention, art 4(5).

<sup>321</sup> UNEP Nairobi Convention, *Proposed work programme for the period 2022–2024 for the implementation of the Nairobi Convention*, UNEP/EAF/CP.10/2 (2021), para 35(f).

<sup>322</sup> “The Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms (WIO LME SAPPHIRE) – Project Document”, online: *UNEP Nairobi Convention* <[www.unep.org/nairobiconvention/resources/policy-and-strategy/western-indian-ocean-large-marine-ecosystems-strategic-action](http://www.unep.org/nairobiconvention/resources/policy-and-strategy/western-indian-ocean-large-marine-ecosystems-strategic-action)> [WIO LME SAPPHIRE – Project Document].

<sup>323</sup> UNEP/EAF/CP.10/2, *supra* note 278, para 36.

sensitive/endangered species in artisanal fisheries through adoption of artisanal management plans in four pilot communities.<sup>324</sup>

**Potential effectiveness:** Relatively low because the Nairobi Convention and the biodiversity protocol do not mention a need to adopt an ecosystem approach; it does not appear from the reviewed materials that the East Africa RSP is implementing an ecosystem approach in its activities.

#### 5.3.12 Sustainable development

The Nairobi Convention does not mention sustainable development. Nevertheless, article 14(1) directs parties to develop “technical and other guidelines to assist in the planning of their major development projects in such a way as to prevent or minimize harmful impacts on the Convention area.” Parties are asked to assess, within their capacities, the potential environmental impact of major projects which may cause substantial pollution or significant harmful changes to the Convention area.<sup>325</sup> The Nairobi Biodiversity Protocol directs parties to take measures to “ensure the sustainable utilization of harvested natural resources under their jurisdiction.”<sup>326</sup>

**Potential effectiveness:** Relatively average because sustainable development is not mentioned in the Nairobi Convention; however, the convention provides a mechanism for integration of environmental and development concerns through the environmental impact assessment provisions.

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<sup>324</sup> WIO LME SAPPHIRE – Project Document, *supra* note 315, 60.

<sup>325</sup> Nairobi Convention at art 14(2).

<sup>326</sup> Nairobi Biodiversity Protocol at art 2(1).

### 5.3.13 Overall potential effectiveness

The Nairobi RSP was assessed “high” on only one of the reviewed parameters suggesting a relatively lower potential to protect and recover marine species at risk. Focusing on developing criteria for listing and recovery strategies for listed species, as well as a establishing a mechanism for compliance review would probably have the highest positive impact on the programme’s potential effectiveness for marine species. It should be noted that this assessment may underestimate potential effectiveness of the East-Africa RSP because not a lot of information is available online on the workings of this programme.



## 5.4 Wider Caribbean Region



**Figure 4:** Caribbean Region RSP<sup>327</sup>

The Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (WCR) (Cartagena Convention) was signed in 1983 and came into force in 1986. It covers the Caribbean Sea, the Gulf of Mexico, areas of the Atlantic Ocean south of 30° north latitude (just south of Bermuda) and waters around northern South America.<sup>328</sup> The convention area is the most geopolitically complex region in the world made up of 30 independent nations and 16 overseas territories of various sizes.<sup>329</sup> The Cartagena Convention

<sup>327</sup> “The Wider Caribbean Region”, online: *CAR SPAW RAC* <[www.car-spaw-rac.org/?The-Wider-Caribbean-Region-768](http://www.car-spaw-rac.org/?The-Wider-Caribbean-Region-768)>.

<sup>328</sup> *Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region* (with Annexes and Protocols), 24 March 1983, 1506 UNTS 157 (entered into force 11 October 1986) [Cartagena Convention], art 2.

<sup>329</sup> Lucia Fanning, Robin Mahon & Patrick McConney, “Focusing on Living Marine Resource Governance: The Caribbean Large Marine Ecosystem and Adjacent Areas Project” (2009), 37:3 *Coastal Management* 219 at 222.

has three protocols.<sup>330</sup> The Specially Protected Areas and Wildlife (SPA) Protocol, adopted in 1990 and in force since 2000, covers marine species at risk and their habitats.<sup>331</sup>

#### 5.4.1 Institutional structure

UNEP, through its Regional Coordinating Unit (UNEP-CAR/RCU) based in Jamaica, acts as the secretariat to the Cartagena Convention and its protocols.<sup>332</sup> Each protocol is served by at least one Regional Activity Center (RAC) which provides technical assistance to parties in meeting their obligations.<sup>333</sup> Parties to the Cartagena Convention defined a RAC as “a financially autonomous, international or regional organization, or regional or national institution with regional focus, which has been designated by the Contracting Parties to the Cartagena Convention to coordinate or carry out specific technical functions and activities in support of the Convention and its Protocols or any future protocols.”<sup>334</sup> The SPAW RAC based in Guadeloupe works with the parties of the SPAW Protocol.<sup>335</sup>

The Wider Caribbean RSP also provides for the establishment of Regional Activity Networks (RANs) defined as a “network of technical institutions and individuals (including e.g. governmental, intergovernmental, non-governmental and academic and scientific) that provide input, peer review, and expertise through the relevant RAC, in a specific scientific or technical area of expertise to increase the level and depth of cooperation and sharing of expertise in the

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<sup>330</sup> “Cartagena Convention”, online: *UNEP CEP* <[www.unep.org/cep/who-we-are/cartagena-convention](http://www.unep.org/cep/who-we-are/cartagena-convention)>.

<sup>331</sup> *Ibid.*

<sup>332</sup> *Ibid*; Cartagena Convention, art 15; SPAW Protocol, art 22(2).

<sup>333</sup> “Cartagena Convention”, *supra* note 330.

<sup>334</sup> UNEP CEP, *Guidelines for the Establishment and Operation of Regional Activity Centres and Regional Activity Networks for the Cartagena Convention*, UNEP(DEC)/CAR IG.24/CRP.9 Rev.1 (2006) at para 5.

<sup>335</sup> “Cartagena Convention”, *supra* note 330.

CEP region.”<sup>336</sup> The Wider Caribbean Sea Turtle Conservation Network is a RAN.<sup>337</sup> A RAN for marine mammals is currently under development.<sup>338</sup>

Article 20 of the SPAW Protocol establishes the Scientific and Technical Advisory Committee (STAC) to advise parties on matters such as species listings and management reports. Each party gets to appoint an expert to the STAC and additional experts may be recruited.<sup>339</sup> Four ad hoc working groups have been established under STAC to support its work on protected areas, species, exemptions, and sargassum.<sup>340</sup>

Each party is required to designate a Focal Point to liaison with the UNEP-CAR/RCU.<sup>341</sup> Parties meet every two years at ordinary meetings of the Protocol.<sup>342</sup> These meetings are tasked with reviewing the implementation of the Protocol; analyze the recommendations from the STAC; and monitor the establishment of the network of protected areas and recovery plans for protected species, in addition to other responsibilities.<sup>343</sup> The Rules of Procedure provide for the election of the Bureau at the beginning of each COP. The Bureau is charged with assisting the secretariat with the conduct of the meeting as well as the provide advice during the intersessional period.<sup>344</sup>

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<sup>336</sup> UNEP(DEC)/CAR IG.24/CRP.9 Rev.1 at para 6.

<sup>337</sup> “WIDECAST Country Coordinators” (2021), online (pdf): *WIDECAST* <[www.widecast.org/Resources/Docs/WIDECAST\\_Country\\_Coordinators.pdf](http://www.widecast.org/Resources/Docs/WIDECAST_Country_Coordinators.pdf)>.

<sup>338</sup> UNEP CEP, *Information Paper of Establishing a Marine Mammal Regional Activity Network in the Wider Caribbean Region*, UNEP(DEPI)/CAR WG.42/INF.23 (2021).

<sup>339</sup> SPAW Protocol, art 20(2).

<sup>340</sup> UNEP CEP, *Terms of Reference of the SPAW STAC Ad Hoc Working Group*, UNEP(DEPI)/CAR WG.42/INF.12 (2021).

<sup>341</sup> SPAW Protocol, art 22(1).

<sup>342</sup> SPAW Protocol, art 23(1); Cartagena Convention, art 16(1).

<sup>343</sup> SPAW Protocol, art 23(2).

<sup>344</sup> UNEP CEP, *Rules of Procedure for the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention)*, UNEP (DEPI)/CAR IG.28/INF.6 (Rev 3) (2010), Rule 19.

**Potential effectiveness:** Relatively high because the programme has a well-established institutional structure with clear decision-making authority, as well as a specialized RAC dedicated to biodiversity.

#### 5.4.2 Parties and observers

There are 26 parties to the Cartagena Convention. These are: Antigua and Barbuda, the Bahamas, Barbados, Belize, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, France, Grenada, Guatemala, Guyana, Honduras, Jamaica, Mexico, Netherlands, Nicaragua, Panama, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, U.K., U.S., and Venezuela.<sup>345</sup>

Eighteen of them are parties to the SPAW Protocol: the Bahamas, Barbados, Belize, Colombia, Cuba, Dominican Republic, France, Grenada, Guyana, Honduras, Netherlands, Nicaragua, Panama, Saint Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, U.S., and Venezuela.<sup>346</sup>

Six parties are developed countries (the Bahamas, Barbados, France, the Netherlands, Panama, and the U.S.) and 12 are developing countries (Belize, Colombia, Cuba, Dominican Republic, Grenada, Guyana, Honduras, Nicaragua, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, and Venezuela).<sup>347</sup>

The Convention and SPAW Protocol are silent about inviting observers. Nevertheless, the Rules of Procedure grant the secretariat authority to invite non-contracting parties, UN

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<sup>345</sup> “Cartagena Convention”, *supra* note 330.

<sup>346</sup> *Ibid.*

<sup>347</sup> <https://worldpopulationreview.com/country-rankings/developed-countries> (2019 index).

subsidiary bodies, inter-governmental, and non-governmental organizations to participate in meetings, if they request and have a “direct concern” in the work of the convention.<sup>348</sup> Observers may be invited by the President to present or participate in the meetings, as long as there are no objections from at least one-third of the parties present.<sup>349</sup> Observers do not have a right to vote.<sup>350</sup>

Thirteen entities are listed as partners of SPAW RAC on its website.<sup>351</sup> These include an academic institution, three conservation networks, a fisheries institute as well as several coral-related programs and initiatives.

**Potential effectiveness:** Relatively average because parties to the Cartagena Convention are a mix of developed and developing countries suggesting differences in resources and priorities. Observers are allowed providing a level of transparency and accountability. However, not all parties to the Cartagena Conventions are parties to the SPAW Protocol, limiting the potential effectiveness of the programme to protect and recover species at risk.

#### 5.4.3 Obligations

The Cartagena Convention directs parties to “ensure sound environmental management.”

<sup>352</sup> Otherwise, the Convention is silent with regards to species at risk, other than in the context of designating MPAs for the protection of their habitats.<sup>353</sup>

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<sup>348</sup> UNEP (DEPI)/CAR IG.28/INF.6 (Rev 3), *supra* note 344, Rules 52-54.

<sup>349</sup> *Ibid.*

<sup>350</sup> *Ibid.*

<sup>351</sup> “Our partners”, online: *CAR SPAW RAC* <[www.car-spaw-rac.org/?Our-partners](http://www.car-spaw-rac.org/?Our-partners)>.

The SPAW Protocol contains the necessary details when it comes to species at risk. Parties are under a general obligation to protect, preserve and sustainably manage threatened and endangered species within their territories.<sup>354</sup> They are also directed to take proactive actions to prevent species from becoming endangered or threatened.<sup>355</sup>

Both endangered and threatened species are defined terms. “Endangered species” means a “species or sub-species of fauna and flora, or their populations, that are in danger of extinction throughout or part of their range and whose survival is unlikely if the factors jeopardizing them continue to operate;”<sup>356</sup> “Threatened species” are species, sub-species or populations that are (i) either likely to become endangered in the foreseeable future if factors causing their declines persist or habitat degradation continues; or (ii) they are rare in numbers or geographical spread and “potentially or actually subject to decline and possible endangerment or extinction.”<sup>357</sup>

The SPAW Protocol contains two categories of obligations: individual and cooperative. Individually, parties have to identify and protect endangered and threatened species within their territories.<sup>358</sup> Parties are explicitly asked to regulate and prohibit activities that have adverse effects on these species, their habitats and ecosystems.<sup>359</sup> The Protocol specifies that for plants, these regulations and prohibitions have to cover all forms of destruction and disturbance, including picking, collecting, cutting and uprooting.<sup>360</sup> For animals, regulations and prohibitions have to cover taking and killing, including, to the extent possible, incidental taking and killing, as well as, to the extent possible, disturbance during periods of biological stress, such as nesting

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<sup>352</sup> Cartagena Convention, art 4(1).

<sup>353</sup> Cartagena Convention, art 10.

<sup>354</sup> SPAW Protocol, art 3(b).

<sup>355</sup> SPAW Protocol, art 10(1).

<sup>356</sup> SPAW Protocol, art 1(f).

<sup>357</sup> SPAW Protocol, art 1(g).

<sup>358</sup> SPAW Protocol, art 10(1).

<sup>359</sup> *Ibid.*

<sup>360</sup> SPAW Protocol, art 10(2).

and migrating.<sup>361</sup> Possession and trade in protected species, their parts and products also have to be regulated or prohibited.<sup>362</sup> Parties are also asked to cooperate in developing and implementing regional recovery programs for species protected under domestic legislation.<sup>363</sup>

Cooperative obligations center around three Annexes. Annex I is reserved for endangered and threatened flora; Annex II is for endangered and threatened fauna; and Annex III covers species subject to regulated exploitation. For species on Annexes I and II, parties are directed to adopt the same regulations and prohibitions as specified under the individual obligations.<sup>364</sup> For Annex III, parties agreed to cooperate in developing, adopting and implementing management plans that include prohibitions on non-selective means of capture, killing, hunting, and fishing, use of closed seasons, and regulation of taking, possession, transport and sale of species, their parts and products.<sup>365</sup> For flora, management measures have to include regulations of collection, harvest and trade in species, parts and products.<sup>366</sup> Parties are to prioritize species listed on the three Annexes for scientific and technical research, as well as mutual assistance.<sup>367</sup> There is no explicit obligation to develop and implement regional recovery plans for listed species.

Under the SPAW Protocol, parties are supposed to evaluate and take into account the possible direct, indirect and cumulative impacts of proposed projects and activities that “would have a negative environmental impact and significantly affect areas or species that have been afforded special protection under this Protocol.”<sup>368</sup> They are also asked to raise public awareness

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<sup>361</sup> SPAW Protocol, art 10(3).

<sup>362</sup> SPAW Protocol, art 10(2) and (3).

<sup>363</sup> SPAW Protocol, art 11(5).

<sup>364</sup> SPAW Protocol, art 11(1)(a) and (b).

<sup>365</sup> SPAW Protocol, art 11(1)(c)(i).

<sup>366</sup> SPAW Protocol, art 11(1)(c)(ii).

<sup>367</sup> SPAW Protocol, art 11(3).

<sup>368</sup> SPAW Protocol at art 13(1).

about the significance and value of protected species and encourage public engagement in their conservation.<sup>369</sup>

Two sets of exemptions are allowed under SPAW. First, parties may grant exemptions to the prohibitions prescribed for the protection of Annex I and II species for “scientific, educational or management purposes necessary to ensure the survival of the species or to prevent significant damage to forests or crops.”<sup>370</sup> Exemptions are not to jeopardize the species.<sup>371</sup> Parties are required to report their exemptions, and STAC is tasked with evaluating their “pertinence”.<sup>372</sup> The *ad hoc* Working Group on Exemptions was established in 2020 with the objectives of encouraging the use of the established reporting format and reviewing exemption reports submitted by parties.<sup>373</sup> So far, only two countries, Curacao and U.S., have submitted their exemption reports.<sup>374</sup> The Netherlands reported their exemptions using the Biennial Country Report format under the Cartagena Convention.<sup>375</sup>

Parties are also allowed to provide exemptions from protective measures for species and protected areas “to meet traditional subsistence and cultural needs of its local populations.”<sup>376</sup> These exemptions are not to endanger the listed protected areas or cause a “substantial reduction” in the populations of species within the protected areas, including threatened and endangered species.<sup>377</sup> Parties granting these exemptions are required to notify the secretariat.<sup>378</sup>

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<sup>369</sup> SPAW Protocol, art 16(2).

<sup>370</sup> SPAW Protocol, art. 11(2).

<sup>371</sup> *Ibid.*

<sup>372</sup> *Ibid.*

<sup>373</sup> UNEP CEP, *Report of the SPAW STAC Exemptions Working Group*, UNEP(DEPI)/CAR WG.42/6 (2021).

<sup>374</sup> *Ibid.*

<sup>375</sup> UNEP CEP, *Exemptions Ad Hoc Working Group – Compliance to the SPAW Protocol*, UNEP(DEPI)/CAR WG.42/INF.21 (2021).

<sup>376</sup> SPAW Protocol, art 14.

<sup>377</sup> SPAW Protocol, art 14.

<sup>378</sup> *Ibid.*



At COP11, the ad hoc Working Group on Exemptions presented a compliance review.<sup>379</sup> The review noted that some parties still allowed hunting for species listed on Annex II, namely sea turtles and cetaceans, without submitting exemption reports.

**Potential effectiveness:** Relatively high because the SPAW Protocol contains clear obligations aimed at protecting and recovering species at risk.

#### 5.4.4 Listing process

According to article 11(4)(a) of the SPAW Protocol, only parties are allowed to submit species nominations for addition or deletion from the Annexes. Article 19 specifies the information that needs to be included in a proposal namely an estimated population, geographical range, ecological interactions with other species, habitat requirements, protection and management measures in place, research programs, and threats to the species, its habitats and ecosystems, especially those outside the jurisdiction of the proposing party. The STAC reviews and evaluates species nominations and supporting documentation and makes recommendations to the COP.<sup>380</sup> If consensus on a listing proposal cannot be achieved, three-quarters majority vote is needed for a proposal to be adopted.<sup>381</sup> Parties that disagree with listing decision can enter a reservation.<sup>382</sup>

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<sup>379</sup> UNEP(DEPI)/CAR WG.42/INF.21, *supra* note 375.

<sup>380</sup> SPAW Protocol, art 11(4)(b).

<sup>381</sup> SPAW Protocol, art 11(4)(c).

<sup>382</sup> SPAW Protocol, art 11(4)(d).

At COP8, parties agreed on the criteria for listing species in the Annexes of the Protocol.<sup>383</sup> Seven factors are to be considered when evaluating species proposals using a precautionary approach: 1) population size; 2) evidence of decline; 3) restrictions on the range of distribution; 4) degree of population fragmentation; 5) biology and behaviour of the species; 6) other aspects of population dynamics, as well as other conditions “clearly increasing” the vulnerability of the species; and 7) importance of the species to the maintenance of fragile or vulnerable ecosystems and habitats.<sup>384</sup> For species proposed for listing on Annex III, the levels and patterns of use as well as experience with national level management needs to be taken into account.<sup>385</sup> Evaluation should be done using the best available information, including traditional ecological knowledge, and the IUCN assessment criteria in a regional context, if sufficient data are available.<sup>386</sup> Additional factors to consider include prevalence of domestic or international trade, whether international trade is regulated by CITES, and usefulness of regional cooperative effort in the protection and recovery of the species.<sup>387</sup>

Disagreements among parties over species listings have plagued the SPAW Protocol since the very beginning. The initial lists were compiled by the secretariat together with the IUCN, but there were delays in finalizing the documents, resulting in postponement of the coming into force of the entire Protocol.<sup>388</sup> In 2010, a Working Group was established to review listing guidelines and put together a short list of proposed listings.<sup>389</sup> The Working Group

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<sup>383</sup> “Revised criteria for the listing of species in the Annexes of the SPAW Protocol and Procedure for the submission and approval of nominations of species for inclusion in, or deletion from Annexes I, II and III” (2014), online (pdf): *CAR SPAW RAC* <[www.car-spaw-rac.org/IMG/pdf/cop8\\_2014\\_.procedure\\_for\\_species.eng.pdf](http://www.car-spaw-rac.org/IMG/pdf/cop8_2014_.procedure_for_species.eng.pdf)>.

<sup>384</sup> *Ibid*, para. 1 and 2.

<sup>385</sup> *Ibid*, para 3.

<sup>386</sup> *Ibid*, para 4.

<sup>387</sup> *Ibid*, para 5 and 6.

<sup>388</sup> David Freestone, “Specially Protected Areas and Wildlife in the Caribbean – The 1990 Kingston Protocol to the Cartagena Convention” (1990), 5:2 *Intl J Estuarine & Coastal L* 362.

<sup>389</sup> UNEP CEP, *Report of the Working Group on the Evaluation of Species for Listing under the Annexes to the SPAW Protocol*, UNEP(DEPI)/CAR WG.40/3 (2018).

identified 100 species and presented the list at the STAC meeting in 2012.<sup>390</sup> No new species were added to the Annexes that year.<sup>391</sup> The Working Group continued its work over the next two years and in 2014 proposed 25 species to be listed under Annex II and 12 species of fauna to be listed under Annex III.<sup>392</sup> After a heated discussion and a vote, the parties agreed to add four species of corals and two species of birds to Annex II and three species of plants and one species of birds to Annex III.<sup>393</sup> None of the proposed species of sharks and rays were included.<sup>394</sup>

A breakthrough for fishes came in 2017 when COP9 adopted the STAC recommendation to add the critically endangered smalltooth sawfish to Annex II.<sup>395</sup> Eight species of sharks and rays, along with Nassau grouper were added to Annex III.<sup>396</sup> But, this was not the end of disagreements over species listing. At STAC8 in 2018, France proposed to uplist five species of elasmobranchs from Annex III to Annex II.<sup>397</sup> Consensus could not be reached on these proposals as Parties raised concerns over their scientific robustness and application of the listing criteria.<sup>398</sup> Nevertheless, Parties agreed to add the critically endangered largetooth sawfish to Annex II and silky shark to Annex III.<sup>399</sup> The uplisting proposals were updated and re-submitted for approval at the next STAC along with the new proposal to list parrotfishes in

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<sup>390</sup> *Ibid.*

<sup>391</sup> UNEP CEP, *Decisions of the Meeting*, UNEP(DEPI)/CAR IG 31/3 (2012).

<sup>392</sup> UNEP CEP, *Report of the Meeting*, UNEP(DEPI)/CAR WG.36/8 (2014), para. 49-51.

<sup>393</sup> UNEP CEP, *Report of the Meeting*, UNEP(DEPI)/CAR IG 34/4 (2014), para 29- 78; UNEP CEP, *Decisions of the Meeting*, UNEP(DEPI)/CAR IG.34/3 (2014).

<sup>394</sup> UNEP(DEPI)/CAR IG.34/3, *ibid*; UNEP(DEPI)/CAR WG.36/ 8, *supra* note 393.

<sup>395</sup> UNEP CEP, *Decisions of the Meeting*, UNEP(DEPI)/CAR IG.37/5 (2017).

<sup>396</sup> *Ibid.*

<sup>397</sup> UNEP CEP, *Report of the Meeting*, UNEP(DEPI)/CAR WG.40/7 (2018).

<sup>398</sup> *Ibid.*

<sup>399</sup> *Ibid*; UNEP CEP, *Decisions of the Meeting*, UNEP(DEPI)/CAR IG.40/3 (2019).

Annex III, but again there was no consensus.<sup>400</sup> This time, the US raised objections over the procedures that were followed when presenting the proposals to the STAC.<sup>401</sup>

**Potential effectiveness:** Relatively high because there are agreed upon listing criteria and listing proposals are reviewed by a technical body.

#### 5.4.5 Compliance review

In addition to the exemption reports discussed above, the SPAW Protocol requires parties to “report periodically” to the secretariat on the status and any changes in status of protected areas and species within their territories.<sup>402</sup> These reports are to be reviewed by the STAC.<sup>403</sup>

In its report to STAC9 in 2021, the *ad hoc* Working Group on Exemptions noted that STAC expert resources have been focused on listing species with almost no review of implementation.<sup>404</sup> The group recommended that STAC develop a position on consequences for non-compliance.

**Potential effectiveness:** Relatively average because there is a mechanism for compliance review, but it has a very narrow mandate. There are also reporting obligations.

#### 5.4.6 Protected species

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<sup>400</sup> UNEP CEP, *Report of the Meeting*, UNEP(DEPI)/CAR WG.42/9 (2021).

<sup>401</sup> *Ibid.*

<sup>402</sup> SPAW Protocol, art 19(1).

<sup>403</sup> SPAW Protocol, art 20(3)(c).

<sup>404</sup> UNEP(DEPI)/CAR WG.42/6, *supra* note 373, para 16.

Over 256 marine, coastal and terrestrial species are listed on the SPAW Annexes. Annex I has not been updated since 1991.<sup>405</sup> Most of Annexes II and III also have remained unchanged, although some marine species have been added, as noted in the section on species listings.

### Annex I

53 species – no marine species

### Annex II

Gastropods – 1 species (not marine)

Bony fishes – 2 species (fresh water)

Amphibians – 10 species

Reptiles – 31 species

- American crocodile - coastal
- 6 marine turtles

Birds – 44 species

- 8 coastal/marine

Cartilaginous fishes – 2 species

Mammals – 26 species + all species of earless seals (Caribbean monk seal) and cetaceans, West Indian manatee - the rest are terrestrial

Corals and sea anemones – 4 species

### Annex III

Plants – 42 species

- At least 9 coastal/marine – mangroves and seagrasses

Hydrozoa – all species of fire corals and hydrocorals

Corals and sea anemones – all species of black corals, gorgonians, and stony corals

Bivalves – 1 species

Gastropods – 2 species

- 1 marine – queen conch

Crustaceans – 1 species – Caribbean spiny lobster

Ray-finned fishes – 1 (Nassau grouper)

Cartilaginous fishes – 9 species

Reptiles – 7

Birds – 13

Mammals – 8

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<sup>405</sup> “Annexes I, II and III of SPAW Protocol” (2019), online (pdf): *CAR SPAW RAC* <[www.car-spaw-rac.org/IMG/pdf/annexes\\_i\\_ii\\_iii\\_of\\_spaw\\_protocol\\_revised\\_cop10\\_honduras\\_2019-2.pdf](http://www.car-spaw-rac.org/IMG/pdf/annexes_i_ii_iii_of_spaw_protocol_revised_cop10_honduras_2019-2.pdf)>.

**Potential effectiveness:** Relatively average because the protected lists contain both terrestrial and marine species. The presence of terrestrial species could divert resources from marine species at risk.

#### 5.4.7 Recovery plans

##### *Marine Mammal Action Plan (MMAP)*

The MMAP, adopted in 2008, has two key long-term objectives. These are conservation and recovery of marine mammals and protection of their habitats in the region, as well as establishment of regional programs to improve cooperation on scientific, technical, and educational matters.<sup>406</sup> The plan is organized around 11 issues listed in order of priority: (1) fisheries interactions; (2) habitat degradation; (3) pollution and marine mammal health; (4) protected areas and other management regimes for population recovery; (5) research; (6) marine mammal watching; (7) marine mammal strandings; (8) marine mammals in captivity; (9) underwater noise; (10) vessel strikes; and (11) climate change. Key objectives and actions are identified for each issue aimed at improving understanding, assessing impact and mitigating negative effects.

The implementation of the MMAP was assessed in 2021.<sup>407</sup> The review conducted qualitative and quantitative analysis focusing on the 11 priority issues. It did not look at the efficacy of the protective measures adopted by countries. The review found that nine out of the

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<sup>406</sup> “Action Plan for the Conservation of Marine Mammals (MMAP) in the Wider Caribbean Region” (2008), online: *UNEP CEP* <[wedocs.unep.org/bitstream/handle/20.500.11822/31068/MMAP\\_ActPlan.pdf?sequence=1&isAllowed=y](http://wedocs.unep.org/bitstream/handle/20.500.11822/31068/MMAP_ActPlan.pdf?sequence=1&isAllowed=y)>.

<sup>407</sup> Courtney Vail & Monica Borobia, “Implementation of the Action Plan for the Conservation of Marine Mammals (MMAP) in the Wider Caribbean: A Scientific and Technical Analysis” (2021), online (pdf): *CAR SPAW RAC* <[www.car-spaw-rac.org/IMG/pdf/mmap\\_caribbean\\_report\\_final\\_8-21.pdf](http://www.car-spaw-rac.org/IMG/pdf/mmap_caribbean_report_final_8-21.pdf)>.

17 SPAW parties still do not have legislation protecting marine mammals in their waters; only 7 parties had adopted bycatch reduction measures; five had established MPAs for marine mammals; five had vessel strike mitigation measures in place; and eight parties had established long-term research and monitoring programs. A suite of recommendations targeting the key threats was provided, with the top recommendation focusing on the establishment of a Marine Mammal Regional Activity Network.

*Regional Management Plan for the West Indian Manatee (Trichechus manatus)*

The comprehensive Regional Management Plan reviews the species' status and distribution, socioeconomic importance and adopted protective measures in each country.<sup>408</sup> It then outlines short-term priority recommendations, long-term research and conservation measures as well as country-specific actions. The short-term recommendations include standardized data collection, education, habitat protection, and a regional manatee network. The review shows that all SPAW parties have adopted some legal protections for manatees at the national level, but effectiveness of these laws is unclear and enforcement lacking. Assessing and improving effectiveness of existing laws is one of the recommendations for the long-term. The plan calls for explicit manatee protections without ambiguities and suggests harmonization of legislation and enforcement across the region to ensure a consistent regulatory framework across the species' range. Other long-term recommendations include monitoring the effects of climate change on manatees, addressing noise and other sources of habitat pollution, as well as developing guidelines for manatee watching. The plan also contains a discussion of the possible reintroduction of manatees into the wild.

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<sup>408</sup> Ester Quintana-Rizzo & John Reynolds III, "Regional Management Plan for the West Indian Manatee (*Trichechus manatus*)" (2010), CEP Technical Report No 51 <[wedocs.unep.org/bitstream/handle/20.500.11822/39756/CEP\\_TR\\_51-en.pdf?sequence=1&isAllowed=y](http://wedocs.unep.org/bitstream/handle/20.500.11822/39756/CEP_TR_51-en.pdf?sequence=1&isAllowed=y)>.

Under the terms of reference, the Species Working Group was tasked with recommending priorities and strategies for regional collaboration for the implementation of protections for species listed in the Annexes of the SPAW Protocol.<sup>409</sup> These priorities and strategies were approved by STAC 9 and the Species Working Group was further instructed to strengthen its work on species protections taking into account the recommendations.<sup>410</sup>

Recommendations were developed for the following species:

### Nassau Grouper

Priorities and strategies for the conservation of Nassau Grouper are clustered around three key themes: coordination and cooperation with Regional Fisheries Bodies; communication and capacity building; and linkages with the Caribbean Marine Protected Areas Managers Network and Forum (CaMPAM).<sup>411</sup> Specific recommendations also include establishing a specific sub-working group under the Species Working Group dedicated to the protection of Nassau Grouper.

### Sawfish

The recommendations for sawfish protection focus on five priority countries that still have the species in their waters.<sup>412</sup> They include calls for explicit prohibitions on fishing, killing, retention and trade in sawfish in Panama, Honduras, Colombia and the Bahamas, along with education and enforcement programs. The authors also suggested the establishment of a specific sub-working group to facilitate the implementation of the identified priorities and strategies.

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<sup>409</sup> UNEP(DEPI)/CAR WG.42/INF. 12, *supra* note 340.

<sup>410</sup> UNEP CEP, *Recommendations of the Meeting*, UNEP(DEPI)/CAR WG.42/8 (2021), Recommendation XI.

<sup>411</sup> Angela Somma *et al*, *Recommendations for conserving Nassau Grouper: A report of the SPAW Species Working Group*, UNEP(DEPI)/CAR WG.42/INF.38 (2021).

<sup>412</sup> Olga Koubrak *et al*, *Recommendations for Preventing Sawfish Extinction: A Report of the SPAW Species Working Group*, UNEP(DEPI)/CAR WG.42/INF.25 (2021).



### Sea Turtles

The recommendations for sea turtle conservation are aimed at encouraging compliance with the obligations under the SPAW Protocol in parties with sea turtle hunting seasons.<sup>413</sup> They also call for an increased coordination with the Inter-American Sea Turtle Convention and several studies looking at sea turtle bycatch in nearshore fisheries and barriers to enforcement.

### Sharks and Rays

The shark and ray recommendations present a broad range of conservation measures grouped into five topics: management, species-specific protections, data collection and identification, implementation review, and cooperation.<sup>414</sup> They include setting precautionary catch limits, eliminating harmful fisheries subsidies, complying with measures adopted by the relevant fisheries bodies and multilateral environmental agreements, as well as developing species identification guides and outreach materials.

**Potential effectiveness:** Relatively average but leaning towards low because fewer than half of the listed species are covered by a recovery plan, and there is no implementation review.

#### 5.4.8 Habitat measures

Similarly to the species provisions, habitat protection obligations under the Cartagena Convention and the SPAW Protocol can be divided into individual and collective measures.

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<sup>413</sup> Olga Koubrak *et al*, *Protection and Recovery of Caribbean Sea Turtles: A Report of the SPAW Species Working Group*, UNEP(DEPI)/CAR WG.42/INF.39 (2021).

<sup>414</sup> Olga Koubrak *et al*, *Effective Management of Sharks and Rays Species Listed in Annex III: A Report of the SPAW Species Working Group*, UNEP(DEPI)/CAR WG.42/INF.24 (2021).

Article 10 of the Cartagena Convention directs parties to protect and preserve rare or fragile ecosystems, as well as habitats of depleted, threatened and endangered species by establishing protected areas.

Under the SPAW Protocol, parties agree to establish protected areas in order to conserve, maintain and restore habitats and ecosystems critical to the survival and recovery of endangered, threatened and endemic species, as well as other objectives.<sup>415</sup> Parties are encouraged to adopt management measures to achieve the objectives of the protected area such as regulation of pollution, vessel activities, and fishing, as well as prohibition on harvesting of endangered or threatened species and destruction of their habitats.<sup>416</sup> They are also asked to adopt planning, management and enforcement measures in order to support the implementation of the management measures.<sup>417</sup>

The SPAW Protocol also provides for the establishment of a network of protected areas.<sup>418</sup> Parties can nominate protected areas within their territories for inclusion on the SPAW list and provide the necessary supporting documentations.<sup>419</sup> The STAC is tasked with evaluating the nominations and advising the COP on their suitability.<sup>420</sup> In order to qualify, proposed protected area has to meet at least one element from the ecological criteria, and where applicable, at least one element from the cultural and socio-economic criteria.<sup>421</sup> Considerations under the ecological criteria include conservation value of the area and presence of critical habitats for listed species. The area's productivity, cultural and traditional use, as well as socio-economic

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<sup>415</sup> SPAW Protocol, art 4.

<sup>416</sup> SPAW Protocol, art 5(2).

<sup>417</sup> SPAW Protocol, art 6(1).

<sup>418</sup> SPAW Protocol, art 7(2).

<sup>419</sup> SPAW Protocol, art 7(3).

<sup>420</sup> *Ibid.*

<sup>421</sup> "Guidelines and criteria for the evaluation of protected areas to be listed under the SPAW Protocol" (2010), online (pdf): *CAR SPAW RAC* <[www.car-spaw-rac.org/IMG/pdf/guidelines\\_a2711.pdf](http://www.car-spaw-rac.org/IMG/pdf/guidelines_a2711.pdf)>.

benefits are reviewed under the cultural and socio-economic criteria. The proposed area has to be legally protected and have a management framework in place.<sup>422</sup>

Thirty-five protected areas have been established under the SPAW Protocol, but only by nine states.<sup>423</sup> Seventeen of these protected areas were established by France and the Netherlands.<sup>424</sup>

**Potential effectiveness:** Relatively average because both the Cartagena Convention and the SPAW Protocol contain obligations to protect habitats and marine protected areas have been established. However, there are no specific habitat recovery plans.

#### 5.4.9 Cross-sectoral cooperation

Article 4(5) of the Cartagena Convention directs its parties to cooperate with competent international organizations to implement the Convention and its Protocols. The SPAW Protocol is silent with respect to cooperation with intergovernmental bodies.

According to the Regional Strategy for the Protection and Development of the Wider Caribbean Region, MOUs have been “developed” between the Caribbean Environment Programme and the Western Central Atlantic Fishery Commission, Caribbean Regional Fisheries

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<sup>422</sup> *Ibid.*

<sup>423</sup> UNEP, *The State of Nearshore Marine Habitats in the Wider Caribbean*, CLME+ Project Information Product Series – Technical Report 1 (Port of Spain: CANARI, 2020), Appendix 7.

<sup>424</sup> *Ibid.*

Mechanism, and Central America Fisheries and Aquaculture Organization.<sup>425</sup> However, copies of these documents are not available.

The IMO supports capacity-building activities in the Region through the RAC/Regional Marine Pollution Emergency, Information and Training Centre – Caribe.<sup>426</sup>

**Potential effectiveness:** Relatively average but leaning towards high because the Cartagena Convention contains an obligation to cooperate with international organizations. Research suggests there are MOUs between the RSP and regional fisheries bodies. There is no MOU with the IMO.

#### 5.4.10 Climate change

The Cartagena Convention and SPAW Protocol do not mention climate change. SPAW RAC is involved in the project “Caribbean network for prevention of coastal risks arising with climate change” (CARIB’COAST) led by the French Geological Survey agency.<sup>427</sup> SPAW RAC works on monitoring and restoring coral reefs, seagrass beds and mangroves.<sup>428</sup>

**Potential effectiveness:** Relatively low because climate change considerations do not appear to be incorporated into the programme’s decision-making processes, and there are also no climate change strategies or action plans.

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<sup>425</sup> UNEP CEP, *Caribbean Environment Programme: Regional Strategy for the Protection and Development of the Wider Caribbean Region. Implementing the Cartagena Convention and Supporting the 2030 Agenda for Sustainable Development. 2020-2030*. UNEP(DEPI)/CAR IG.42/5 (2019) at 27.

<sup>426</sup> “Committing to protect the marine environment in the Caribbean” (20 May 2022), online: *IMO* <[www.imo.org/en/MediaCentre/Pages/WhatsNew-1715.aspx](http://www.imo.org/en/MediaCentre/Pages/WhatsNew-1715.aspx)>.

<sup>427</sup> “CARIB’COAST Description”, online: *CAR SPAW RAC* <[www.car-spaw-rac.org/?CARIMAM-news,741](http://www.car-spaw-rac.org/?CARIMAM-news,741)>.

<sup>428</sup> *Ibid.*

#### 5.4.11 Ecosystem approach

The Cartagena Convention and SPAW Protocol do not explicitly mention the ecosystem approach. The Regional Strategy states that it “embodies all core principles of ecosystem-based management, which aims to manage in an integrated and precautionary manner human uses and their cumulative impacts on marine and coastal ecosystem functioning on an ecological scale, rather than confined to jurisdictional boundaries.”<sup>429</sup>

The Secretariat of the Cartagena Convention is a member of the Interim Coordination Mechanism for the Sustainable Management, Use and Protection of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems project.<sup>430</sup>

A four-year project (2015-2019) in two pilot sites in the Dominican Republic developed and tested the application of Ecosystem-based Management.<sup>431</sup> Species at risk are not mentioned in the project’s report.

**Potential effectiveness:** Relatively low because an ecosystem approach is not mentioned in the Cartagena Convention and the SPAW Protocol and is not being implemented by the programme.

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<sup>429</sup> UNEP(DEPI)/CAR IG.42/5, *supra* note 422 at 16.

<sup>430</sup> *Ibid.*

<sup>431</sup> UNEP CEP, *Ecosystem-based Management and the application of a Decision Support System in the Wider Caribbean: Lessons learnt from EBM Application in the Wider Caribbean: Concept to Action* UNEP(DEPI)/CAR WG.42/INF.1 (2020).

#### 5.4.12 Sustainable development

Sustainable development is not mentioned in the Cartagena Convention and the SPAW Protocol. Nevertheless, Article 12 of the Cartagena Convention directs its parties to assess, within their capabilities, potential effects of major development projects on coastal areas and the marine environment. The SPAW Protocol elaborates on this obligation in Article 13. Here, the parties are asked to evaluate possible direct, indirect, and cumulative impacts on species listed under SPAW or SPAW MPAs. Parties are directed to request assistance from the Secretariat and STAC in conducting the assessments.<sup>432</sup>

Krishnarayan, Renard and John have criticized the SPAW Protocol for failing to promote sustainable development by not considering social values of wildlife and encouraging multi-stakeholder decision-making.<sup>433</sup> They described it as “the product of a bygone era when conservation was approached in a very narrow way, with little consideration for livelihood and development issues.”<sup>434</sup>

**Potential effectiveness:** Relatively average because although the Cartagena Convention and the SPAW Protocol do not mention sustainable development, the two instruments contain obligations to conduct environmental impact assessments. This mechanism could be used as a platform to bring together environmental and development concerns.

#### 5.4.13 Overall potential effectiveness

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<sup>432</sup> SPAW Protocol, art 13(2).

<sup>433</sup> Vuay Krishnarayan, Yves Renard & Lyndon John, "The SPAW Protocol and Caribbean Conservation: Can a Regional MEA Advance a Progressive Conservation Agenda" (2006) 9:3 J Intl Wildlife L & Pol'y 265.

<sup>434</sup> *Ibid* at 276.

The WCR RSP received relatively high scores on three of the assessed components; it also received relatively low scores on two components. The remainder of the assessed parameters fell somewhere between these two extremes. This suggests that the programme has relatively average potential to protect and recover marine species at risk. To improve its potential, the WCR RSP should focus on developing a mechanism to implement an ecosystem approach that puts into practice available recovery plans, while also taking into account the needs of listed species that are not covered by a plan. Establishing a mechanism with a broad mandate to review compliance with and implementation of treaty obligations would be also helpful.

## CHAPTER 6

### Discussion

Previous chapters have shown that there is no one way to define and measure effectiveness. Instead, authors develop a variety definitions and criteria to suite the objectives of their studies. This research project adopted a definition of effectiveness that emphasizes the potential of an instrument to achieve its objectives. Specifically, it asks the question of what is the relative potential of the four reviewed RSPs to protect and recover marine species at risk. Two factors affecting effectiveness are examined: (1) legal and institutional structure and (2) regional-level implementation. These factors consist of twelve examined elements. To guide the assessment of potential effectiveness, the four RSPs are ranked “high”, “average”, and “low” relative to each other on the ordinal scale on the twelve elements. The analysis and results are explained and summarized below.

#### **6.1 Assessing effectiveness of the reviewed RSPs**

##### 6.1.1 Institutional structure, parties and observers

All reviewed RSPs have complex legal structures consisting of a framework convention with protocols (East Africa, Mediterranean and WCR) or a convention with annexes (OSPAR). This legal complexity translates into institutional complexity. UNEP acts as the secretariat for three of the reviewed RSPs (East Africa, Mediterranean and WCR). OSPAR has an independent secretariat. East Africa, Mediterranean and WCR programmes use national focal points to liaise



with the secretariats, while small bureaus carry out work intersessionally. All four RSPs have a commission or conferences of parties as the top decision-making body within their governance structures. Both the Mediterranean and the WCR have RACs dedicated to biodiversity management; they also have technical committees assisting with specific tasks. The Nairobi Convention COP has also established technical working groups however details on their nature of work and composition are not available online. OSPAR relies on a system of committees and correspondence groups to carry out its work. The East Africa programme has the Consortium for the Conservation of Coastal and Marine Ecosystems in the West Indian Ocean affiliated with it, although the legal nature of the relationship between the two bodies is unclear.

**Assessment of the institutional structure:** OSPAR, Mediterranean, and WCR are assessed as having relatively high potential effectiveness based on their institutional structure because they have secretariats, top decision-making bodies consisting of all parties, and most importantly specialized RACs or committees dedicated to species at risk. The Nairobi RSP is assessed as having relatively average potential because it does not have a specialized RAC or committee dedicated to supporting endangered species commitments.

The composition of the reviewed RSPs in terms of economic development varied. All OSPAR parties are developed countries. In contrast, in the East Africa programme, France is the only developed party. In the Mediterranean and WCR, there are mixes of developed and developing countries.

In the North-East Atlantic RSP, all states that border the OSPAR region are parties to the Convention. Similarly in the East Africa RSP all states that are parties to the framework convention are also parties to its biodiversity protocol. In the Mediterranean, 16 states are parties to the biodiversity protocol out of 21 states that are parties to the framework convention; in the Caribbean programme, 18 out of 26 parties participate in the biodiversity protocol.

All four of the reviewed RSPs allow observers. However, the rules vary among the RSPs and depend on the type of organization involved. OSPAR has the tightest rules requiring unanimous consent of the parties to allow participation of non-party states and IGOs. NGOs have to meet additional qualification criteria. The Mediterranean programme also requires unanimous consent of all parties to invite NGOs, although consent can be tacit, and participation is more open to UN bodies and IGOs. The WCR and Nairobi appear to be the more open. In both RSPs, the secretariat is allowed to invite observers.

**Assessment of parties and observers:** The OSPAR RSP is assessed as having relatively high potential because its parties are all developed countries which suggests commonalities in power, resources and priority given to halting and reversing species declines. All states that border the North-East Atlantic are subject to the obligations to protect species at risk, and observers are allowed to participate in the proceedings. The Nairobi Convention is also assessed as relatively high because the majority of its parties are developing states suggesting commonalities in power, resources, and priorities. All parties of the RSP are subject to the obligations to protect species at risk under the biodiversity protocol, and observers are allowed. The Mediterranean and Caribbean RSPs are assessed as having relatively average potential because their parties are a mix of

developed and developing countries which suggests differences in power, resources, and priorities. Not all states that border the Mediterranean and Caribbean Seas are parties to the biodiversity protocols. Both programmes allow observers.

### 6.1.2 Obligations

All three framework conventions contain broad obligations to protect species at risk. These obligations are detailed in the specialized protocols adopted under each framework convention.

The SPA/BD Protocol in the Mediterranean and the SPAW Protocol in the Caribbean impose a combination of individual and cooperative obligations. Individually, the parties to the two protocols are asked to identify species at risk within their territories and protect them, along with their habitats, from adverse impacts. Subject to conditions, parties are required to prohibit intentional and incidental killing, as well disturbance of the species during times of biological stress.

Cooperative obligations under the SPA/BD Protocol and the SPAW Protocol are limited to the species listed on one of the annexes. The level of protection required under the annexes varies with the risk of extinction. Both protocols have annexes reserved for species facing a high risk of extinction where intentional and incidental exploitation has to be prohibited, subject to conditions and exemptions. Both protocols also have annexes reserved for species that can be used, subject to management measures that ensure their long-term survival.

The Nairobi Biodiversity Protocol does not explicitly differentiate between individual and cooperative commitments towards species at risk, but there is an implied difference.

Annexes I and II deal with endangered flora and fauna, respectively, and require parties to adopt

strict protective measures, including prohibitions on killing and all forms of capture, subject to conditions. Obligations to Annex III species focus on the development and implementation of domestic management plans. Commitments to species on Annex IV are cooperative since they apply to migratory species.

Although the three protocols require strict protections for some species, these obligations are subject to conditions. In all three cases prohibitions are qualified and to be adopted “where appropriate” and “where required”. There is no guidance on how to determine whether these conditions have been met. All three protocols provide exemptions for traditional needs of local communities. The SPA/BD and SPAW Protocols are clearer than the Nairobi Biodiversity Protocol in this regard and also account for subsistence needs. The fact that the Nairobi Biodiversity Protocol does not provide for exemptions for scientific, educational and management purposes potentially poses a barrier to its implementation by setting unrealistic requirements.

The obligations to species at risk under the OSPAR Convention and its Annex V are different compared to the obligations under the three conventions and protocols discussed above. They are general in nature, leaving a lot of discretion to OSPAR parties to set the content of protections. There is only one list of protected species, which means that there is no explicit differentiation in the levels of protection for the species on the OSPAR list.

Unlike the other reviewed RSPs, the OSPAR Convention specifically assigns the Commission responsibilities for developing protective programs and measures. It also explicitly states that the Commission does not have authority to adopt programs or measures related to fisheries management and shipping.

All of the reviewed instruments mention the need to protect habitat. These obligations are general and often tied to the establishment of protected areas. The habitat criterion is discussed in more detail below.

**Assessment of obligations:** The Mediterranean and Caribbean programmes have relatively high potential effectiveness because their biodiversity protocols contain specific and binding obligations to protect species at risk. The East Africa programme has relatively average potential effectiveness that leans towards the high end of the spectrum because the obligations under its biodiversity protocol are not as specific as the ones under the SPA/BD and SPAW Protocols. The OSPAR programme is assessed as having relatively average potential because the obligations under the Convention are limited to protecting biodiversity in general.

### 6.1.3 Protected species and listing process

All of the RSPs evaluated in this research project used at least one list of species to guide their conservation priorities. Although in all cases the number of species on the protected list(s) substantially exceeded the number of species covered by regional conservation programs, strategies or action plans. For example, 44 species of birds are listed on Annex II of the SPAW Protocol, while none of them are covered by a recovery strategy or an action plan. Similarly, none of the 7 species of sponges and 17 species of mollusks are subject to a recovery plan. In OSPAR and the Mediterranean parties have adopted lists of protected species that are marine-focused. Annexes under the SPAW and Nairobi Protocols include a combination of marine and terrestrial species. Despite being on the protected lists, terrestrial species receive very little

attention. There are no conservation programs, strategies or action plans for terrestrial species in the two RSPs.

**Assessment of protected species:** Both OSPAR and Mediterranean are assessed as being on the high end of the potential effectiveness spectrum because their protected species are limited to marine species. This should allow the parties to focus their efforts on these species. In contrast, East Africa and Caribbean are both relatively average because their lists of protected species include terrestrial species potentially diverting resources from marine species at risk that are the focus of this research project.

SPA/BD, SPAW and OSPAR parties have developed their own listing criteria with some common elements, as well as significant differences. Not surprisingly, all three criteria require evidence of population declines. The SPA/BD criteria rely on the IUCN Red List methodology to evaluate declines, while the WCR criteria suggest that the IUCN assessment criteria be used when sufficient regional data are available. The OSPAR criteria provide qualitative guidance on how to evaluate species' declines that do not rely on the IUCN approach. Under the SPA/BD assessment criteria, a species could qualify for strict protection under Annex II if the species is on the IUCN Red List as Critically Endangered, Endangered or Vulnerable. The listing criteria are not available for the Nairobi Biodiversity Protocol.

The WCR is the only reviewed RSP that has online meeting reports with information on the debates among the parties over species' listing. Although the SPAW Protocol provides for listing following a 3/4 majority vote, consensus is clearly preferred. Parties resorted to voting only once despite failing to reach consensus on numerous occasions. The SPA/BD and the Nairobi

Biodiversity Protocols also allow voting (3/4 majority needed under SPA/BD and 2/3 under Nairobi), but it is unclear whether it has been used. The fact that listing proposals, including proposals to list traditionally controversial species like sharks, had been adopted following the initial nomination suggests that the listing process is less adversarial in the Mediterranean RSP compared to the Caribbean programme. However, future researchers will need to adopt a different research methodology in order to assess the accuracy of this observation.

OSPAR is the only RSP that used an independent organization, in this case ICES, to peer review the listing proposals. The WCR programme uses an expert working group to review the listing proposals with the STAC making the final listing recommendation to the COP. Although parties and observers nominate members of the expert working group, they are supposed to evaluate the proposals in their individual capacity as experts. This approach allows working group experts to express their opinions without binding their nominators, but without interviews it is impossible to assess the actual independence of the working group members. The fact that not all parties nominate working group members also potentially biases the advice presented to the STAC. In the Mediterranean, the meeting of the SPA/BD focal points evaluates the listing proposals and makes recommendations to the COP. Reviewed information suggests that the East Africa RSP does not have agreed upon listing criteria.

**Assessment of the listing processes:** North-East Atlantic and Caribbean have relatively high potential effectiveness because both RSPs have agreed upon listing criteria, while listing proposals are reviewed by scientific bodies. This suggests that scientific rather than political considerations play the determining role in species listing. The Mediterranean RSP is assessed as having relatively average potential in its listing process

because although there are listing criteria, the proposals are reviewed by the focal points rather than technical experts. The Nairobi RSP has relatively low potential effectiveness because it does not appear to have listing criteria, and it does not appear that the proposals are reviewed by a technical body.

#### 6.1.4 Compliance review

All four of the reviewed instruments have some reporting requirements; however none of them specify the reporting interval. OSPAR parties are supposed to report to the Commission, Nairobi and SPAW parties to their respective Secretariats, and SPA/BD parties to COP. It is difficult to evaluate compliance with this obligation because these reports are not publically available online. SPA/BD is the only RSP that published any information on national-level implementation. The results showed that although the majority of the parties took some measures for species at risk, just six out of 11 parties had laws in place to protect species listed on one of the Annexes.

The Barcelona Convention is the only examined RSP that has a Compliance Committee which reviews instances of non-compliance with the Convention or its Protocols. It is impossible to know if any of the proceedings have dealt with the protection of listed species because the Committee's proceedings are not available online. The recommendations provided by the Committee are not binding. The *ad hoc* Working Group on Exemptions under the SPAW Protocol also engages with compliance review. However, the assessment is limited to the exemptions reported by the parties themselves and does not engage with broader issues of non-compliance. The Working Group makes a recommendation to the STAC whether they believe the exemption in question was pertinent; however, there does not appear to be any consequences



for non-compliance, and there is uncertainty about the authority of the STAC to sanction non-compliant parties.

**Assessment of the compliance review:** The Mediterranean programme is assessed as having relatively high potential because it has a specialized compliance review mechanism; there are reporting requirements; and national-level implementation information is available. The Caribbean programme has relatively average potential because although there is a specialized compliance review mechanism, its mandate is narrow. There are also reporting obligation. North-East Atlantic and East Africa are assessed as being relatively low because other than reporting requirements there are no additional review mechanisms.

#### 6.1.5 Recovery plans

Compared to the number of species protected under the reviewed instruments, existing recovery plans and strategies cover significantly fewer species. The Mediterranean RSP has the most recovery strategies and action plans for the species listed on the SPA/BD annexes with five plans dedicated to monk seal, chondrichthyan fishes, marine birds, cetaceans, and sea turtles in addition to habitat-related action plans. In the Caribbean RSP, there is an action plan for marine mammals and a regional management plan for the manatee. There are also recommendations from the Species Working Group on how to improve conservation of Nassau grouper, sawfishes, sea turtles and elasmobranchs in the region. These recommendations are much shorter than the traditional strategies and action plans and call for specific, targeted actions. The OSPAR also uses the recommendations model of recovery planning. Here, almost all listed species are

covered by a recommendation that encourages parties to address the most pressing threats. Also, collective actions under the recommendations are organized under the 2017-2025 Roadmap. The Nairobi RSP does not appear to have any recovery plans or strategies for the species listed on its annexes.

None of the reviewed RSPs have assessed the implementation of their action plans and recovery strategies at the regional or national levels.

**Assessment of the recovery plans:** OSPAR and the Mediterranean are assessed as having relatively average potential effectiveness because the majority of the marine species are covered by a recovery plan that directs parties to address the key threats. However, there is no implementation review. The Caribbean programme is assessed as being average but leaning towards low because few of the listed marine species are covered by a plan and there is no implementation review. The East-Africa programme is assessed as having relatively low potential effectiveness because there are no recovery plans for listed marine species.

#### 6.1.6 Critical habitat protection

Unlike the specific obligations to protect listed species, habitat protection measures are not as detailed. The SPA/BD Protocol is the only reviewed instrument that has a specific obligation to prohibit destruction and damage of the habitat of Annex II species and develop action plans for their recovery. So far, three habitat-related action plans have been adopted. A

diverse group of habitat-creating species are also found on Annexes II and III. These include coral, plant, and algae species.

Both the SPAW and Nairobi Biodiversity Protocols tie habitat protection to the establishment of protected areas. The two instruments direct their parties to consider habitat needs of endangered species when establishing protected areas. However, at least in the Caribbean, protected areas are not evenly distributed. The Netherlands and France have established 17 out of 35 SPAW MPAs. Both SPAW and Nairobi Biodiversity Protocols also list habitat-creating species on their annexes. The listing under the Nairobi Biodiversity Protocol is limited to some species of coral; the listings under the SPAW Protocol include some coral species, in addition to mangroves and sea grasses. No recovery or action plans have been adopted for these listed species.

OSPAR parties have added 16 habitats to the OSPAR List of Threatened and/or Declining Species and Habitats. These are subject to protective recommendations like the listed species. Protected areas are also used as a tool to conserve listed species.

**Assessment of critical habitat protection:** The North-East Atlantic and Mediterranean programmes are assessed as having relatively high potential because their legal instruments contain obligations to protect critical habitats of listed species. They also have habitat recovery plans and marine protected areas. Both the Nairobi and Cartagena programmes are assessed as having relatively average potential because the legal instruments contain obligations to protect critical habitats of listed species, and there are marine protected areas in these regions.

### 6.1.7 Cross-sectoral cooperation

All four of the reviewed conventions contain some form of obligations to engage with relevant international organizations. With respect to the protocols, the SPA/BD is the only protocol that has some obligations in this regard. All four of the reviewed programmes have MOUs with fisheries management bodies in their area of work, although two of them (Mediterranean and WCR) are not publically available. Both OSPAR Commission and the Secretariat of the Barcelona Convention have signed MOUs with the IMO. Only one of these MOUs (OSPAR) is publically available.

OSPAR and NEAFC have established the collective arrangement that holds promise as a model for cross-sectoral cooperation. The arrangement is open to all international organizations that have competence in the issues relevant to the marine environment of the North-East Atlantic. Through the arrangement, participants aim to cooperate in regulating human activities in protected areas on the high seas that are subject to different jurisdictions.

**Assessment of cross-sectoral cooperation:** On this parameter, OSPAR and Barcelona RSPs are assessed as having relatively high potential because they have obligations to cooperate with the competent fisheries and shipping organizations, and MOUs have been signed with these bodies. The Nairobi and Caribbean RSPs are assessed as having relatively average potential but leaning towards high because their constituting documents contain an obligation to cooperate, and they have entered into MOUs with the relevant fisheries bodies. They do not have MOUs with the IMO.

### 6.1.8 Climate change

None of the reviewed conventions, annexes, or protocols mention climate change. Nevertheless, three RSPs (Nairobi, Barcelona and OSPAR) have acknowledged the threat posed by climate change to biodiversity in their strategies. Nairobi is the only program that has a regional climate strategy; but it does not mention species at risk. Mediterranean and OSPAR incorporate climate change concerns into their general medium-term strategies. The Mediterranean UNEP/MAP Mid-Term Strategy 2016-2021 called for the incorporation of climate change vulnerabilities in new and updated regional strategies and action plans. The results were underwhelming. The regional strategies for monk seal and marine turtles identified the need for more studies of climate change impacts on the species, while the action plan for marine vegetation recommended protecting more areas through MPAs. The OSPAR North-East Atlantic Environment Strategy 2030 includes activities to incorporate climate change considerations into species status assessments, as well as revisions to the OSPAR list of threatened and/or declining species and habitats.

In the WCR, the SPAW RAC monitors and works to restore coral reefs, seagrass beds, and mangroves as part of a program on prevention of coastal climate risks run by the French Geological Survey agency.

**Assessment of climate change:** OSPAR and Barcelona are assessed as having relatively average potential because although there is recognition of the need to incorporate climate change considerations into species listings, assessments and recovery plans, implementation does not appear to be happening. Nairobi and Cartagena are assessed as

having relatively low potential because climate change considerations are not incorporated into the decision-making.

#### 6.1.9 Ecosystem approach

Although the sheer number of species recognized as requiring protection suggests the utility of an ecosystem approach, its implementation remains difficult. All four reviewed RSPs recognize the necessity of an ecosystem approach or ecosystem-based management, although implementation has been lagging. In the Mediterranean actions have focused on identifying objectives and establishing a monitoring program. In the WCR, a four-year pilot project on ecosystem-based management was completed in 2019 in the Dominican Republic; it does not appear that the project is being continued. OSPAR takes a different approach with the Coordination Group being responsible for integrating the work of the different committees into an ecosystem approach rather than identifying indicators.

**Assessment of ecosystem approach:** OSPAR is assessed as having relatively high potential because the convention contains an obligation to apply an ecosystem approach and there is a mechanism for its implementation. Barcelona RSP is assessed as having relatively average potential because although the legal instrument does not have an explicit obligation to adopt an ecosystem approach, the programme has established a mechanism for its implementation. Nairobi and Cartagena RSPs are assessed as having relatively low potential because an ecosystem approach is not being implemented.

#### 6.1.10 Sustainable development

Species at risk have a difficult relationship with the concept of sustainable development. On one hand, future generations should have the full benefits of the biodiversity present today. On the other, marine species are central to livelihoods and food security, especially in rural communities and developing countries. Negotiating the tradeoffs between these complex positions is one of the challenges facing the international community.

The Barcelona Convention is the only reviewed framework convention that explicitly addresses sustainable development and establishes a mechanism for its implementation. The language of sustainable use is seen in the OSPAR Convention, which is consistent with the language in the CBD. This language might be better suited to the circumstances of the OSPAR Convention given that all its parties are developed countries. There is also a mechanism for integrating human use and environmental concerns. Both the Cartagena and Nairobi Convention have provisions relating to environmental impact assessments creating space for establishing mechanisms to integrate development and environmental considerations.

**Assessment of sustainable development:** The Mediterranean RSP is assessed as having relatively high potential because the Barcelona Convention explicitly mentions sustainable development and establishes a mechanism for its implementation. The OSPAR RSP is assessed as having relatively average potential but leaning towards the high end of the spectrum because there is an implementation mechanism for assessing impacts of human activities. The Nairobi and Cartagena Conventions are assessed as having relatively average potential because both instruments contain obligations to conduct environmental impact assessments, but it is unclear if they are being implemented.

### 6.1.11 Overall effectiveness assessment

The overall assessment of the relative potential effectiveness of the four RSPs on the evaluated parameters is summarized in Table 1.

**Table 1:** Assessment of the relative potential effectiveness of the four RSPs on the evaluated parameters.

	<b>North-East Atlantic</b>	<b>Mediterranean</b>	<b>East Africa</b>	<b>Caribbean</b>
<b>Legal &amp; institutional design</b>				
Institutional structure	HIGH	HIGH	AVE	HIGH
Parties & observers	HIGH	AVE	HIGH	AVE
Obligations	AVE	HIGH	AVE-HIGH	HIGH
Listing process	HIGH	AVE	LOW	HIGH
Compliance review	LOW	HIGH	LOW	AVE
<b>Regional implementation</b>				
Species	HIGH	HIGH	AVE	AVE
Recovery plans	AVE	AVE	LOW	AVE -LOW
Habitat	HIGH	HIGH	AVE	AVE



	<b>North-East Atlantic</b>	<b>Mediterranean</b>	<b>East Africa</b>	<b>Caribbean</b>
Cross-sectoral cooperation	HIGH	HIGH	AVE-HIGH	AVE -HIGH
Climate change	AVE	AVE	LOW	LOW
Ecosystem approach	HIGH	AVE	LOW	LOW
Sustainable development	AVE-HIGH	HIGH	AVE	AVE

None of the reviewed RSPs were assessed as having relatively high potential to protect and recover marine species at risk on all parameters. OSPAR and Barcelona received the highest number of “high” scores with seven. The Barcelona RSP received no assessments in the relatively low range, while OSPAR received one. There is a gap in potential effectiveness between the two leading programmes and the Caribbean and East Africa RSPs. The Caribbean programme was assessed as having relatively high potential on three parameters and a low score on two. The East Africa RSP received one relatively high score and five scores at the low end of the potential effectiveness spectrum. Potential effectiveness of the Nairobi RSP may have been underestimated due to a lack of information available on its website. One possible explanation of the results is parties’ composition and corresponding capacities. All parties in the North-East Atlantic RSP are developed states; almost all parties to the Nairobi Convention are developing states, while both the Mediterranean and Caribbean are a mix. Additional research into technical and financial resources of the four RSPs is needed to assess the accuracy of this proposition.

Recovery plans and climate change were the only parameters where none of the reviewed RSPs were assessed as having relatively high potential. They were followed by compliance

review and ecosystem approach, where only one RSP was assessed as being relatively high. The Barcelona programme received a “high” score on compliance review, while OSPAR was ranked the highest with respect to its implementation of an ecosystem approach. All four RSPs were assessed in the high and average range with respect to institutional structure, obligations, protected species, and habitat. These results suggest that all four programmes have legal obligations and institutional structures needed for effective protection and recovery of marine species at risk. Numerous species have been identified within each RSP that require protective measures. There has been less effort in developing recovery plans and incorporating climate change considerations into decision-making. Both compliance review and implementation of an ecosystem approach also remain challenging, although there are programmes that can be used as examples of best practices in these regards.

## **6.2 Future directions**

As shown in chapter 1, international law has over a century of experience managing species at risk, with some early successes such as in the case of the fur seals. Utilizing this existing foundation to its full potential is imperative if the impending biodiversity crisis is averted in the given short period of time. In his article on the needed response to the climate crisis, Gerrard argues that now is that time for triage.<sup>1</sup> Difficult tradeoffs facing humanity need to be made now before far worse impacts are inevitable.<sup>2</sup> Marine species at risk are undeniably going to be a part of these discussions given their importance in social, economic, and environmental spheres.

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<sup>1</sup> Michael B. Gerrard, “A Time for Triage” (2022), online: *Columbia Law School Scholarship Archive* <[scholarship.law.columbia.edu/faculty\\_scholarship/3867/](https://scholarship.law.columbia.edu/faculty_scholarship/3867/)>.

<sup>2</sup> *Ibid.*

### 6.2.1 Approaches to improve international environmental law

Reflecting on the need for pronounced changes, Kotzé is one of the main proponents for the development of earth system law to address the unique challenges of the Anthropocene.<sup>3</sup> He argues that in its current form, “international environmental law (mostly implicitly, but also explicitly), structurally contributes to causing, sustaining, and exacerbating these predatory paradigms that, in turn result in Earth system destructions, exploitation, and the oppression of vulnerable humans (mostly situated in the Global South) and oppression of the non-human world.”<sup>4</sup> To address these deficiencies, Kotzé proposes a transnational system that transcends state sovereignty and has the capacity to bring human activities within planetary limits.<sup>5</sup> It would be anchored in an “all-encompassing instrument” akin to a global constitution that places environmental norms near the top of international law hierarchy and adopts a systems approach.<sup>6</sup>

Kotzé’s ideas are undeniably thought provoking and could lead to improvements in environmental outcomes when fully developed and implemented. However, the recent history of international environmental law suggests that such radical re-imagining may not be feasible in the near future. In 2018, the UNGA established an ad hoc working group to consider a new international instrument to address gaps in international environmental law.<sup>7</sup> Rather than

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<sup>3</sup> Louis J Kotzé, “Earth System Law for the Anthropocene” (2019) 11 Sustainability 6796; Louis J Kotzé & Rakhyun E Kim, “Earth system law: The juridical dimensions of earth system governance” (2019) 1 Earth System Governance 100003; Louis J Kotzé, “Global Environmental Constitutionalism in the Anthropocene” in Louis J Kotzé, ed, *Environmental Law and Governance for the Anthropocene* (Portland: Hart, 2017) 189.

<sup>4</sup> Kotzé, “Earth System Law for the Anthropocene”, *ibid* at 4.

<sup>5</sup> *Ibid*; Kotzé & Kim, *supra* note 3 at 7.

<sup>6</sup> Kotzé, “Global Environmental Constitutionalism in the Anthropocene”, *supra* note 3 at 205 and 213; Louis J Kotzé & Duncan French, “A critique of the Global Pact for the environment: a stillborn initiative or the foundation for *Lex Anthropocena*” (2018), 18 Intl Env Agreements 811.

<sup>7</sup> UNGA, *Towards a Global Pact for the Environment*, A/RES/72/277 (2018).

resulting in a new treaty, the process ended with a weak political declaration in 2022.<sup>8</sup>

Furthermore, at the conclusion of the process, the UNGA resolution called for “renewed efforts at all levels to enhance the implementation of existing obligations and commitments under international environmental law”<sup>9</sup>

A more successful example of a recent international environmental law-making is the newly agreed treaty for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction. This agreement took approximately six years to negotiate, and it still needs to enter into force.<sup>10</sup> In both cases the UNGA instructed the working groups in charge of text not to undermine the authority of the existent international bodies. For marine species at risk, this reality means that the silos between the fisheries management bodies created under UNCLOS and UNFSA and environmental instruments, such as the regional seas conventions reviewed here, will likely remain for the foreseeable future. It also means that marine species at risk will be subject to a combination of general, ecosystem-wide type of instruments, as well as specie-specific obligations.

Biermann and colleagues also made calls for substantial changes to environmental law at the conclusion of the 10-year Earth System Governance Project.<sup>11</sup> They propose seven building blocks to transform the world’s environmental governance: 1) upgrade UNEP to a specialized UN agency; 2) improve integration of social, economic, and environmental concerns; 3) close

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<sup>8</sup> Yann Anguila & Lionel Chami, “The Global Pact for the Environment: Where To?” (17 March 2022), online: *Jus Mundi Blog* <[blog.jusmundi.com/global-pact-for-the-environment-where-to/](http://blog.jusmundi.com/global-pact-for-the-environment-where-to/)>.

<sup>9</sup> UNGA, *Follow up to the report of the ad hoc open-ended working group established pursuant to General Assembly resolution 72/277, A/RES/73/333* (2019) at Annex para 7.

<sup>10</sup> UNGA, *Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, A/CONF.232/2023/4* (2023); “Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction”, online: *United Nations* <[www.un.org/bbnj/](http://www.un.org/bbnj/)>.

<sup>11</sup> F Biermann *et al*, “Navigating the Anthropocene: Improving Earth System Governance” (2012) 335 *Science* 1306.

gaps in global governance, for example in dealing with emerging technologies; 4) mainstream environmental goals into global trade and finance regimes; 5) transition to qualified majority voting from consensus decision-making at intergovernmental meetings; 6) strengthen accountability mechanisms; and 7) keep equity and fairness at the core of new developments. These ideas are more actionable at this point in time than Kotzé's and may bring positive changes to environmental outcomes by improving the existent system of international environmental law. Suggestions offered in the remainder of this part are consistent with the recommendations made by Bierman and colleagues.

The proposed approach can be described as “evolutionary,” but it does not mean that it has to be slow. Instead, it may be fast, more stable, predictable, and less risky compared to a more radical course of action. For example, in the case of the North Atlantic right whale, Canada has demonstrated that existing legal tools could be used to implement a cutting edge dynamic management system designed to minimize the risk of harm to the whales, while preserving economic activities, such as fishing and shipping.<sup>12</sup> This research project has shown that the international law system also has unutilized potential when it comes to the recovery of marine species at risk, especially in UNEP's RSPs.

The following recommendations are aimed at improving conservation outcomes for marine species at risk at the RSP, regional, and global levels. Examples of best practices are also provided, where available.

### 6.2.2 RSP-level recommendations

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<sup>12</sup> O Koubrak, D VanderZwaag & B Worm, “Saving the North Atlantic Right Whale in a Changing Ocean: Gauging Scientific and Law and Policy Responses” (2021) 200 *Ocean & Coastal Management* 105109.

Two recommendations aimed at improving transparency and accountability, as well as integration of social, economic, and environmental concerns, are proposed at this level. These should improve effectiveness of marine species at risk conservation and ensure that human needs are met in the process.

### *Transparency and accountability*

Access to information on activities of an organization is a precondition for effectiveness assessment. However, this research project has demonstrated that the necessary information is often not readily available. For example, records of debates on species listing were only available online for the Caribbean programme. Lack of this information makes it impossible to determine whether considerations other than the ones in the listing criteria sway decision-making.

In this research project, the WCR RSP came out as the leader in transparency. The programme is open to observers, and there does not appear to be narrow qualification criteria and onerous registration requirements. The RSP also publishes on its website detailed reports from its main meetings making it possible to get a sense of the issues in agreement and contention among the parties. Availability of detailed meeting reports contributes to accountability by allowing non-participants to assess the work done by the programme. Lack of detailed meeting reports in the other reviewed RSP significantly restricted the depth of analysis in this research project.

Wettestad recognized that there needs to be differentiated access to information for an effective institutional design, for instance open access to plenary meetings and more restricted access to meetings on details.<sup>13</sup> Such differentiated access may be translated into meeting reports. Including information on key points in debates, even if redacting other information such

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<sup>13</sup> Jørgen Wettestad, "Designing Effective Environmental Regimes: The Conditional Keys" (2001) 7:3 Global Governance 317 at 330.

as names of the countries raising the issues, would help evaluate the strength of commitments and identify obstacles that are likely to arise in implementation. Furthermore, sometimes it was necessary to “Google” the searched terms in order to find the links to the needed information. For example, no link to the marine protected areas page was provided on the UNEP’s site for the Nairobi Convention, despite this page being active. Such disorganization makes it difficult to conduct thorough research, especially when secondary sources that could point in the right direction are unavailable.

Victor, Raustiala and Skolnikoff identified systems of implementation review as an important component of effective international agreements.<sup>14</sup> Although this research project looked at compliance review mechanisms within the four RSPs, arguably both implementation and compliance review go to the issue of parties’ accountability. The fact that the Mediterranean was the only programme that scored well on this parameter highlights the need for improvement in this area. Within the flora and fauna agreements reviewed by Victor, Raustiala and Skolnikoff, NGOs played a key role in the development of the review mechanisms. All four reviewed RSPs allow observer participation, including NGOs. However, information available online did not allow analysis of the types of NGOs that participate in the workings of the programmes and the influence that these organizations have.

Based on the results of this research project, the Nairobi Convention could be described as a leader in observer engagement. The East Africa RSP has established two mechanisms for enhanced observer cooperation. The Consortium for the Conservation of Coastal and Marine Ecosystems in the West Indian Ocean brings together NGOs in the region to improve

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<sup>14</sup> David G Victor, Kal Raustila & Eugene Skolnikoff, eds, *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (Cambridge, Massachusetts: MIT Press, 1998) at 65.

implementation of the Nairobi Convention. The Forum of Academic and Research Institutions in the Western Indian Ocean Region facilitates science-policy dialogue and supports science-based decision-making by parties. Both of these mechanisms should create space for different organizations that are interested in the work of the Nairobi Convention to coordinate their efforts and align them with the needs of the parties. Both of these mechanisms have been established without the express language in the Nairobi Convention and the biodiversity protocol directing their creation.

*Integration of social, economic, and environmental concerns*

The concept of sustainable development is prevalent in international law.<sup>15</sup> It calls for the integration of social, economic, and environmental concerns through the implementation of SDGs. The need to balance food security, poverty alleviation, and protection of species at risk, especially in developing countries, is highlighted by Okonkwo. Similar concerns were raised by Krishnarayan, Renard, and John in relation to the Wider Caribbean Region.

UNEP's RSP is striving to position itself as an operational platform for the implementation of sustainable development at regional scale. But as this project has demonstrated, only two of the reviewed programmes have dedicated mechanisms for the incorporation of development concerns in environmental protection. The North-East Atlantic and Mediterranean RSPs have platforms where these concerns may be discussed and negotiated by the parties and observers. The Mediterranean programme has a commission dedicated to

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<sup>15</sup> See Christina Voigt arguing that sustainable development is a principle of international law in Christina Voigt, *Sustainable Development as a Principle of International Law: Resolving Conflicts between Climate Measures and WTO Law* (Martinus Nijhoff: Boston, 2009) 145.



sustainable development, while in the North-East Atlantic a committee is tasked with mitigating the impacts of human uses.

Both the Nairobi and Cartagena Conventions contain obligations to conduct environmental impact assessments for major projects in the coastal and marine environments. This means that both conventions have obligations to establish mechanisms that have the potential to integrate social, economic, and environmental concerns for major projects.<sup>16</sup> However, these obligations appear to be directed at the national, rather than regional, level, making it difficult to evaluate their implementation within the scope of this project.

Ecosystem approaches provide another tool for implementation of sustainable development. The sheer number of species on the protected lists compared to the number of recovery plans within the four RSPs calls into question the feasibility of the single-species approach to protection and recovery. Furthermore, while the lists of protected species are taxonomically diverse, recovery plans are mainly focused on charismatic megafauna. Ecosystem approaches hold promise to address these issues by taking a more holistic and integrated approach to protection and recovery. Ecosystem approaches also have the potential to expand the scope of knowledge systems beyond those of Western science used to inform conservation.

But as this research project demonstrated, implementation of ecosystem approaches at regional levels remains challenging. The Mediterranean experience shows that a lot of resources may be expended on indicators and monitoring, while recovery planning remains unaddressed. OSPAR provides an example of a different method implementing an ecosystem approach.

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<sup>16</sup> Peter Jacobson & Barry Sadler, “Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future” (1990), online (pdf): *Canadian Environmental Assessment Research Council* <[publications.gc.ca/collections/collection\\_2021/eccc/En107-3-79-1990-eng.pdf](http://publications.gc.ca/collections/collection_2021/eccc/En107-3-79-1990-eng.pdf)>.

However, its effectiveness still needs to be evaluated. It is likely that different mechanisms of implementation will have to be developed to suit the needs of different RSPs and species at risk.

### 6.2.3 Regional-level recommendations

This recommendation is aimed at expanding concern for marine species at risk beyond RSPs and mainstreaming it among intergovernmental organizations with overlapping jurisdictions.

#### *Regional ocean governance networks*

The current system for marine species protection can be described as a flexible mosaic that has the potential to be adaptable. As shown in chapter 2, international law obligations towards marine species at risk are found across a range of conventions with varying obligations from broad and general to very specific. This means that concerns for marine species at risk could be readily advanced across multiple institutional platforms.

Intergovernmental bodies established by the instruments discussed in chapter 2 also have the legal capacity to enter into cooperative agreements with each other, meaning that networks of regional ocean governance are feasible. In her article on the future of polar ocean governance under climate change, Rayfuse proposed establishment of a Regional Oceans Management Organization in the Arctic to regulate high seas activities in a holistic and integrated manner.<sup>17</sup> This idea makes sense in the Arctic region where there is an absence of binding regional obligations related to the marine environment. But in other parts of the world, it may be sensible to utilize existing legal foundations. With 18 regional programmes and over 146 country

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<sup>17</sup> Rosemary Rayfuse, "Melting Moments: The Future of Polar Oceans Governance in a Warming World," (2007) 6:2 RECIEL 196.

participants, UNEP's Regional Seas is the largest environmental program in the world. These RSPs could act as focal points for the development of the regional networks aimed at recovering marine species at risk and preserving the world's biodiversity.

Current research has shown that all four of the reviewed RSPs are engaged in some level of cross-sectoral cooperation with regional fisheries bodies and the IMO. Looking specifically at international fisheries management, Friedman and colleagues have noted that biodiversity considerations are growing in importance within the field.<sup>18</sup> Similarly Chircop argues that biodiversity concerns are relevant to the IMO work.<sup>19</sup> This congruence of factors creates an opportunity for the intergovernmental bodies in the fisheries, shipping, and biodiversity sectors to deepen their working relationships towards the goal of protecting and recovering marine species at risk. The mosaic of obligations towards these species described in chapter 2 should provide enough initial common ground for discussions among states and IGOs. Future legal researchers could evaluate the adequacy of existing MOUs to support this objective and if needed, propose alternative governance structures.

OSPAR's collective arrangement that is open to all competent international organizations in the region could serve as an example of a mechanism for the establishment of such regional ocean governance networks. However, it is disappointing to see that only NEAFC has joined this particular mechanism for cooperation. This reality highlights the difficulty of bringing together different IGOs with the objective of working towards conservation of marine species at risk.

#### 6.2.4 Global-level recommendations

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<sup>18</sup> K Friedman, SM Garcia & J Rice, "Mainstreaming biodiversity in fisheries" (2018) 95 *Marine Pol'y* 209.

<sup>19</sup> Aldo Chircop, "The Role of the IMO in Protecting Marine Biodiversity" (2020), online: *ResearchGate* <[www.researchgate.net/publication/345342173\\_The\\_Role\\_of\\_the\\_IMO\\_in\\_Protecting\\_Marine\\_Biodiversity/link/601187d7299bf1b33e2ab458/download](http://www.researchgate.net/publication/345342173_The_Role_of_the_IMO_in_Protecting_Marine_Biodiversity/link/601187d7299bf1b33e2ab458/download)>.

In order for the recommendations above to be implemented, the need to protect and recover marine species at risk has to be recognized as a priority at the highest international and domestic levels. However, scholars have observed that this is not the case. Writing in 1996, Raustiala and Victor expressed an opinion that “For governments, NGOs, and UN agencies alike, biodiversity is still minor-league environmental diplomacy.”<sup>20</sup> Writing fifteen years later, Harrop and Prichard reached a similar conclusion.<sup>21</sup> Absence of world leaders and celebrities, compared to the climate conferences of parties, was noted at the CBD COP15 in Montreal.<sup>22</sup>

Lack of political will at the global level translates into a lack of political will at national levels. This is noticeable in the poor domestic implementation of international obligations. Although this research project did not methodically review national level implementation, available information presents a concerning picture. Explicit gaps in enactment of protective obligations domestically were noted in the Mediterranean and Caribbean. Because biodiversity obligations under the OSPAR Convention are more general, compliance with these provisions is more difficult to evaluate in the North-East Atlantic. Implementation information was not available online for East Africa. The following recommendations aim to mobilize political will at the global level.

### UNGA review process

As the global institution for the environment, UNEP has to take the lead in putting biodiversity conservation at the top of the agenda. It is disappointing to see that in the Regional

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<sup>20</sup> Kal Raustiala & David G Victor, “Biodiversity Since Rio: The Future of the Convention on Biological Diversity” (1996) 38:4 *Environment* 16 at 24.

<sup>21</sup> Stuart R Harrop & Diana J Prichard, “A hard instrument goes soft: The implications of the Convention on Biological Diversity’s current trajectory” (2011) 21 *Global Env Change* 474 at 475.

<sup>22</sup> Helen Briggs, “COP15: Five key takeaways from the UN biodiversity summit” (20 December 2002), online: *BBC News* <[www.bbc.com/news/science-environment-64030656](http://www.bbc.com/news/science-environment-64030656)>.

Seas Strategic Directions for 2022-2025, the indicator for Target 1.4 – protection and recovery of threatened species – are limited to the distribution of copies of the IUCN Red List.<sup>23</sup> This may be the time for UNGA to step in and demand more concrete action on marine biodiversity conservation from its subsidiary organ.

In 2006, pursuant to the UNGA Resolution 59/25, the Secretary- General convened the Review Conference of the UNFSA.<sup>24</sup> The purpose of the conference was to assess the effectiveness of the UNFSA “in securing the conservation and management of straddling fish stocks and highly migratory fish stocks...”<sup>25</sup> The following year, five tuna RFMOs held their first joint meeting in Kobe, Japan to discuss common issues looking to improve management of tuna and tuna-like species.<sup>26</sup> Subsequent meetings were held under both mechanisms resulting in recommendations and strategic actions.<sup>27</sup> Although improvements in international fisheries management have been slow, changes are nevertheless happening.<sup>28</sup> UNGA could call a similar implementation review conference of the UNEP’s RSP with a focus on marine species at risk.

### *Kunming- Montreal Global Biodiversity Framework implementation*

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<sup>23</sup> “Regional Seas Strategic Directions 2022-2025: Guiding the Regional Seas Towards Global Ocean-related Goals for the Period 2022-2025” (2021), online: *UNEP* <[wedocs.unep.org/handle/20.500.11822/36810](http://wedocs.unep.org/handle/20.500.11822/36810)>.

<sup>24</sup> UNGA, *Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments*, A/RES/59/25 (2004), para 16; “Review Conference on the Agreement for the Implementation of the Provisions of United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks”, online: *Oceans and Law of the Sea United Nations* <[www.un.org/depts/los/convention\\_agreements/review\\_conf\\_fish\\_stocks.htm](http://www.un.org/depts/los/convention_agreements/review_conf_fish_stocks.htm)> [“Review Conference”].

<sup>25</sup> A/RES/59/25, *ibid* at para 16.

<sup>26</sup> “Meetings Past”, online: *Tuna-org* <[www.tuna-org.org/meetingspast.htm](http://www.tuna-org.org/meetingspast.htm)>.

<sup>27</sup> *Ibid*; “Review Conference”, *supra* note 24.

<sup>28</sup> UNGA, *Report of the resumed Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, A/CONF.210/2016/5; “International Fisheries Managers’ Response to Performance Review Insufficient” (1 May 2019), online: *PEW Trusts* <[www.pewtrusts.org/en/research-and-analysis/issue-briefs/2019/05/international-fisheries-managers-response-to-performance-reviews-insufficient](http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2019/05/international-fisheries-managers-response-to-performance-reviews-insufficient)>.

The majority of the world's governments recognized the imperative for urgent action on biodiversity decline at CBD COP15 and agreed on a way forward in the Kunming-Montreal Global Biodiversity Framework. Goal A specifically calls for a stop to human induced extinction of known threatened species. This is to be achieved in conjunction with ensuring that human needs are met for the present and future generations, while benefits arising from biodiversity use are shared in a fair and equitable manner. The need to uphold Indigenous rights and incorporate Indigenous knowledge is explicitly recognized in the associated targets.

It is reassuring to see that COP15 adopted a decision related to monitoring the implementation of the Framework.<sup>29</sup> The monitoring mechanism is still under development, but it is planned to be finalized at the next COP in 2024.<sup>30</sup> It will be based on national reporting and will be implemented in a facilitative, non-punitive manner.<sup>31</sup> Nevertheless, the fact that Aichi target 12, aimed at reversing species declines, was missed should act as a warning to the CBD secretariat that more needs to be done to encourage states to adopt the necessary measures. Hopefully the establishment of the Kunming-Montreal Biodiversity Framework Fund under the Global Environment Facility and other initiatives aimed at resource mobilization will lead to better outcomes this time.<sup>32</sup>

The Kunming-Montreal Global Biodiversity Framework also recognizes the need to cooperate with other conventions and international organizations that work in the field of biodiversity conservation.<sup>33</sup> This is to be done by “strengthening of cooperation and synergies among relevant conventions and multilateral agreements by, as appropriate and in line with their

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<sup>29</sup> CBD, *Mechanisms for planning, monitoring, reporting and review*, CBD/COP/DEC/15/6 (2022).

<sup>30</sup> *Ibid*, para 3, 8-9.

<sup>31</sup> CBD, *Kunming-Montreal Global Biodiversity Framework*, CBD/COP/DEC/15/4 (2022).

<sup>32</sup> CBD, *Resource mobilization*, CBD/COP/DEC/15/7 (2022).

<sup>33</sup> CBD, *Cooperation with other conventions and international organizations*, CBD/COP/DEC/15/13 (2022).

respective mandates, legal authority and responsibilities, establishing or renewing cooperation frameworks, as needed.”<sup>34</sup> As for the CBD parties, conscientiously adopting obligations under the Regional Seas conventions could be the first step towards implementation of this post-2020 biodiversity framework.

### **6.3 Future Research**

The impending biodiversity crises demands urgent, effective action. The transboundary nature of many marine species at risk makes international law a necessary tool in this endeavour. The current project evaluated relative potential effectiveness of four Regional Seas Programmes to protect and recover species at risk of extinction. The results of this project showed that all four of the reviewed programmes have the legal and institutional structures needed to protect and recover marine species at risk. However, regional implementation is lagging in particular in areas such as recovery planning and compliance review. A number of future research directions could be pursued to validate, understand, and expand the results of this project. These are discussed next.

Three research designs could help decrease the weight of the subjective judgment in the potential effectiveness evaluation made by the single assessor in this research project. The next study could use a panel of researchers to review the collected material on the four RSPs and assign “high”, “average”, and “low” values to the effectiveness elements. A review for large discrepancies in the assigned values among the researchers and reasons for them could be used to strengthen the framework for assessing effectiveness developed in this project. Another study could review all of the 18 RSPs using the effectiveness criteria from this study but adapted for a

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<sup>34</sup> *Ibid* at para 2.

quantitative analysis. Conducting a quantitative analysis would allow researchers to explore relationships between different elements using statistics. Finally, incorporating interviews with various RSP stakeholders into future research design could also provide additional insights into the effectiveness of these programmes in protecting and recovering marine species at risk. In particular interviews may be helpful in filling information gaps identified in this study.

This research project has shown that there is unrealized potential within the reviewed RSPs to integrate development and environmental matters through special committees or through environmental impact assessment mechanisms. A TWAIL analysis of the UNEP's RSPs could help inform these future developments. Okonkwo and Mickelson both noted that economic development and poverty alleviation are priorities for developing countries and that environmental concerns, including biodiversity conservation, need to align with this reality in a fair and equitable manner. A TWAIL analysis may be fruitful because many RSPs bring together developed and developing countries. But as the experience in the WCR shows, species listing proposals are generally made by the developed countries, while developing countries struggle with implementation. Developed countries also account for the majority of established SPAW MPAs in that region. Understanding the history of the negotiations of the different Regional Seas instruments and the resulting power dynamic would be helpful in ensuring that all parties benefit from their participation in the RSPs thus leading to better outcomes for marine species at risk.

Another promising research direction would be to look at the financing of the RSPs. Baakman considered adequate financing to be one of the elements in her effectiveness analysis,



while a number of researchers have noted the lack of adequate funds in their review of the programmes.<sup>35</sup>

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<sup>35</sup> Michael A Jacobson, "The United Nations' Regional Seas Programme: How Does It Measure Up?" (1995) 23 Coastal Management 19; Philomène A Verlaan & Anbreen S Khan, "Paying to protect the commons: lessons from the Regional Seas Programme" (1996) 31:2-3 Ocean & Coastal Management 83; Laurence D Mee, "The Role of UNEP and UNDP in Multilateral Environmental Agreements" (2005) 5 Intl Env Agreements 227.

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