
Foreword

At 3 am in the morning of Saturday 24 January 2015, nine hours after the meeting was scheduled to have ended and while a snowstorm raged outside the UN HQ in New York,¹ an historic document was concluded. The so-called BBNJ Working Group reached consensus on the text of its final recommendations to the UN General Assembly. The process of reaching this consensus has taken nearly a decade; the first meeting of what is properly called the ‘United Nations Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction’ was held in 2006.

The agreed text recommends that the UN General Assembly ‘Decide to develop an international legally-binding instrument under the [Law of the Sea] Convention on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.’² This agreement, to start the process of negotiating what is expected to be a third Implementing Agreement to the 1982 UN Law of the Sea Convention, is indeed historic.

Elsewhere I have called the governance of marine areas beyond national jurisdiction the ‘final frontier’.³ These areas are the last great global commons areas on Earth – covering nearly half the surface of the planet. Moreover, it has also been suggested that the current characteristics of the ABNJ regime with regulatory and governance gaps,⁴ weak implementation and enforcement of existing rules⁵ and widespread illegal, unreported and unregulated fishing⁶ are reminiscent of the nineteenth century frontier

¹ I am grateful to Kristina Gjerde for the context, and for staying to the end of the meeting.

² The text is at http://www.un.org/ga/search/view_doc.asp?symbol=A/69/780 (last accessed 3 June 2015). The recommendations of the Working Group also envisage the establishment of a preparatory committee, to begin work in 2016 and to report to the UN General Assembly (UNGA) in 2017 with recommendations on a text. These recommendations were adopted by the UNGA on 19 June 2015 in UNGA Resolution A/69/L.65, available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N15/138/14/PDF/N1513814.pdf?OpenElement> (last accessed 3 July 2015).

³ David Freestone, ‘The Final Frontier: The Law of the Sea Convention and Areas beyond National Jurisdiction’ in *Proceedings of the 2012 Law of the Sea Institute Conference on Securing the Ocean for the Next Generation*, vol. 1, (Martinus Nijhoff, 2013) 1–15.

⁴ See K. Gjerde, H. Dotinga, S. Hart, E.J. Molenaar, R. Rayfuse and R. Warner, *Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction* (Gland: IUCN, 2008), available at http://cmsdata.iucn.org/downloads/iucn_marine_paper_1_2.pdf (last accessed 3 June 2015).

⁵ See David Freestone, ‘Problems of High Seas Governance’ in Davor Vidas and Peter Johan Schei, eds, *The World Ocean in Globalisation: Challenges and Responses*, (Martinus Nijhoff, 2011) 99–130. See also R. Warner, *Protecting the Oceans beyond National Jurisdiction: Strengthening the International Law Framework* (Martinus Nijhoff, 2009).

⁶ Mary Ann Palma, Martin Tsamenyi and William Edeson, *Promoting Sustainable Fisheries: The International Legal and Policy Framework to Combat Illegal, Unreported and*

areas of the ‘wild west’ in the USA.⁷ The good news is that the recommendation of the BBNJ Working Group to begin a new negotiation presents the opportunity for the international community to provide more effective approaches to many of the issues not specifically addressed by the 1982 Law of the Sea Convention itself.⁸

For generations we have regarded the sea as unpredictable, dangerous and limitless. Four hundred years ago, in *De Mare Liberum*, Hugo Grotius described the sea as ‘common to all, because it is so limitless that it cannot become a possession of any one’.⁹ The ‘Cruel Sea’ as he describes it, has traditionally been seen as a realm in which seafarers risk their lives; the primal forces of ocean tides and waves presenting a danger to seafarers as well as coastal dwellers. This traditional perspective has humankind at the mercy of the unpredictable ocean.

In the last half century however we have had to begin to change this long held view. Air travel, scientific advances, including communications technology, has made the world appear smaller and its resources more finite. Now, we discover, we are the dangerous ones; the sea has become the victim.

We still know little about the open ocean. It is said that we know more about the surface of the moon than about the deepest parts of the ocean. However, we do know beyond doubt that we have already had major negative impacts upon oceans everywhere. Anthropogenic pollution has already affected ecosystem functioning in the deep ocean.¹⁰ Plastics and other wastes are accumulating in the great gyres of the Pacific and the Atlantic, contaminating and suffocating pelagic creatures. Our fishing technology has allowed us to increase catches and to push out into deeper and more remote waters, so that fish stocks are failing throughout the world, and deep sea species are being depleted before biologists can determine basic information about them.

High-seas fish stocks are a valuable source of protein for human consumption – but there is evidence of serious depletion in the larger pelagic species, such as tunas and billfishes, resulting in fishing for smaller species, lower down the trophic levels.¹¹ This gives rise to serious questions about the impact of such fishing on the whole marine

Unregulated Fishing (Martinus Nijhoff, 2010) xi, who suggest that one-third of all fish harvested are from IUU operations.

⁷ Freestone, above n 3, 15.

⁸ The recommendations of the BBNJ Working Group propose that negotiations will address the topics identified in the package agreed by the Working Group in 2011, namely the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, in particular, together and as a whole, marine genetic resources, including questions on the sharing of benefits, measures such as area-based management tools, including marine protected areas, environmental impact assessments and capacity building and the transfer of marine technology.

⁹ Hugo Grotius, *The Freedom of the Seas* (Latin and English version, Magoffin trans.) [1608] James Scot Brown (ed.) available at <http://oll.libertyfund.org/titles/552> (last accessed 3 June 2015).

¹⁰ Through the work of the Census of Marine Life. See, eg, R. Danovaro et al., ‘Exponential Decline of Deep-Sea Ecosystem Functioning Linked to Benthic Biodiversity Loss’ (2008) 18 *Current Biology* 1.

¹¹ See D. Pauly et al., ‘Fishing Down Marine Food Webs’ (1998) 279 *Science* 860, 862–3.

ecosystem and its long-term sustainability.¹² Economists, as well as biologists, have voiced serious concerns for sustainability, in light of the huge amounts of money spent each year to support fisheries.¹³

At the same time that we discover the important role that the oceans provide as the lungs of the planet, we are also discovering that human industrial emissions are poisoning those lungs. CO₂ is increasing the acidity of the oceans. Research had suggested that, at 450 ppm, corals and shellfish, and perhaps even plankton, will have problems in creating and maintaining their carbonate structures¹⁴ but some of these negative impacts are already being felt. Climate change precipitated by emissions of greenhouse gases is also warming the oceans and already causing sea levels to rise.¹⁵

However, as the BBNJ decision demonstrates, it is not all bad news. And the developments discussed in this book also provide us reason for optimism. Article 192 of the 1982 Law of the Sea Convention provides that ‘States have the obligation to protect and preserve the marine environment.’ There are few obligations in international law that are so unqualified and unequivocal.

Thirty years ago a book of this kind would have been much shorter – it would doubtless have looked at the work of the International Maritime Organization on vessel source pollution, perhaps also at off-shore oil drilling and the work of the 1972 London Dumping Convention (of course, the last has been so successful in limiting deliberate dumping that it has dropped the word ‘dumping’ from its name, becoming the London Convention). Such a volume might also have considered the work of the Global Program of Action on Land based Sources of Pollution and the early Regional Seas Agreements. However there would probably have been little consideration of the environmental impacts of seabed mining or of exploitation of the extended continental shelf – although both were contemplated by the 1982 LOSC they still looked technologically unfeasible in the 1980s. Similarly we knew little about seabed vents or cold seeps, and the unique life forms that surround them – or even of the existence of ancient deep cold water corals.

Professor Rayfuse has tasked the authors of the various chapters of the book with documenting critically the progress that has been made under international law in addressing some of the key sectoral activities which pose threats to the marine environment; laying out the positive aspects of these measures as well as their shortcomings. It is a highly topical review of contemporary issues surrounding the regime created by the 1982 Law of the Sea Convention and as a research handbook it surely demonstrates effectively the areas for further work which still exist.

¹² See the suggestion that the high seas be closed to fishing, examined by R. Sumaila et al., ‘Winners and losers in a world where the high seas is closed to fishing’, *Scientific Reports* 5, Article number: 8481. DOI:10.1038/srep08481.

¹³ See study by the World Bank and FAO, *The Sunken Billions: The Economic Justification for Fisheries Reform* (Washington, DC: The World Bank, 2009), that estimated that USD 1.05 is spent for every USD 1 of fish produced.

¹⁴ O. Hoegh-Guldberg et al., ‘Coral Reefs under Rapid Climate Change and Ocean Acidification,’ (2007) 318 *Science* 1737–42.

¹⁵ See IPCC Assessment Report 5: *Climate Change 2013: The Physical Science Basis*, 1140, available at http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf (last accessed 3 June 2015).

It is a great pleasure for me to have been invited to write this Foreword. I commend the editor and her team of authors and am pleased to recommend this volume as an important, well informed and highly contemporary discussion of this relatively new but important field – marine environmental law.

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