Fragmented Governance of Our One Global Ocean

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How inappropriate to call this planet Earth, when clearly it is Ocean.

ARTHUR C. CLARKE, British author, inventor and futurist

In her 1998 publication, *The Oceanic Circle*, Elisabeth Mann Borgese, articulates the conundrum that challenges the world when it comes to managing ocean activities. She notes that

[t]he ocean is a medium different from the earth: so different, in fact, that it forces us to think differently. The medium itself, where everything flows and everything is interconnected, forces us to “unfocus,” to shed our old concepts and paradigms, to “refocus” on a new paradigm.¹

Unfortunately, this most necessary ‘refocusing’ remains very much a work in progress.

The United Nations Convention on the Law of the Sea (UNCLOS) states in its Preamble that “problems of ocean space are closely interrelated and need to be addressed as a whole.”² And yet paradoxically, the global governance regime is essentially sectoral in nature, based around management and regulatory stovepipes aimed largely at individual industries and activities with rules and regulations emanating from innumerable oversight entities. Much has been written about the failures of this sectoral approach to ocean governance.³

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¹ E. Mann Borgese, *The Oceanic Circle: Governing the Seas as a Global Resource* (Tokyo: United Nations University Press, 1998), 5–6.
² Montego Bay, 10 December 1982, 1833 U.N.T.S.: 3.
³ “Towards a New Governance of the Ocean,” in *Ocean Atlas*, ed., U. Bähr (Kiel: Bonifatius GmbH Druck-Buch-Verlag, 2017), 44–45.
But first it is important to underscore Mme. Mann Borgese’s assertion that the ocean is different from the earth—with its inhabitants knowing no borders, and its various ecosystems being part of an interconnected whole. There is but one global ocean, and the conventional reference to ocean(s) in the plural is inaccurate and damaging to the cause of those trying to ensure its sustainability. It is vital to make this distinction, and when and where we can, correct the misuse of the terminology, if for no other reason than for the sake of accuracy and improving public understanding of the ocean's significance.

Many have made the case for the use of the singular. First, regarding accuracy, as noted by Patricio Bernal among others, the ocean should be considered as one, simply due to the nature of fluids. For its part, the National Oceanic and Atmospheric Administration of the United States points out that there is only one global ocean, but for convenience and ease of reference, it has been geographically divided into distinct named regions. And according to the US National Marine Educators Association in their *Essential Principles and Fundamental Concepts of Ocean Sciences for Learners of All Ages*, the very first principle is that “the Earth has one big ocean with many features.”

But the much more pragmatic reason for all of us to use the singular is that we humans, as part of our nature, tend to be much more defensive and caring about items if we know we have only one of them. We regard them as more precious and worthy of our care and protection. As long as we define the ocean in the plural with names that suggest separate and distinct locations—for example, the Atlantic versus the Pacific—it is easy to dismiss a pollution or other negative event that may be very far from where we live, and therefore not impacting us directly.

So the question remains. How can we properly convey that it is up to all of us, whether in coastal or land-locked nations, to look after our global ocean? That what we do in one part of the ocean will ultimately affect others? And that if we desecrate the one and only ocean on this planet, there is no replacement? Both accuracy and pragmatism should drive us all to reference the one global ocean, and to urge others to do the same.

Unfortunately, on another front, our system of governance is not helping matters. When it comes to ocean sustainability we have a regime that is...
fragmented, some would say fractured, lacking unity, cohesion and overall direction. To illustrate, UNCLOS, which is meant to be the overarching governance framework or ‘constitution of the ocean’, establishes different ocean areas. They include territorial seas extending 12 nautical miles from a country’s coast, and exclusive economic zones up to 200 nautical miles, with the possibility of extension to 350 nautical miles provided a country can scientifically prove its continental shelf is geologically connected to the mainland.\(^7\) In addition, the international ocean space is regulated by close to 600 bilateral and multilateral environment agreements,\(^8\) while within a given country almost every ministry/department touches some aspect of ocean management and regulation. Add those countries with multiple governing jurisdictions and coastlines, such as Canada, and one can easily understand that complexities multiply rapidly. On top of that, there are regional organizations, such as regional fisheries management organizations, focused on one particular topic or activity in a given geographic area.

Within the UN system, numerous agencies and programmes are involved in ocean affairs, as shown in Figure 1. Only three UN organizations are involved exclusively with ocean issues: the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO) for science, the International Maritime Organization (IMO) for shipping, and the International Seabed Authority (ISA) for marine mining. Other entities have broad mandates that include aspects of ocean affairs, such as UNESCO for underwater and marine cultural heritage as well as education for sustainable development, the Food and Agriculture Organization (FAO) for fishing and aquaculture, and United Nations Environment (formerly UNEP) for regional seas and marine environment. Additional UN organizations involved in their areas of expertise include the World Meteorological Organization (WMO), the World Health Organization (WHO), the International Atomic Energy Agency (IAEA), the UN Industrial Development Organization (UNIDO), the International Labour Organization (ILO), and increasingly, the UN World Tourism Organization (UNWTO). The UN Development Programme (UNDP), and the World Bank, including its Global Environment Facility (GEF), have become more heavily involved in ocean issues over the past number of years, while some divisions of the UN Secretariat, most notably the Division of Social

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\(^7\) UNCLOS, supra note 2.

\(^8\) IOC/UNESCO, IMO, FAO, UNDP, A Blueprint for Ocean and Coastal Sustainability: An Interagency Report on the Preparation for the UN Conference on Sustainable Development (Paris: IOC/UNESCO, 2011), 22, http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/SC/pdf/interagency_blue_paper_ocean_rioPlus20.pdf.
and Economic Affairs (UN-DESA) and the Division on Ocean Affairs and Law of the Sea (UN-DOALOS), have played key roles in ocean issues for decades.

As a result of the myriad UN agencies, programs, and divisions that play a role in ocean affairs, a co-ordination mechanism known as UN Ocean(s!) was created in 2003 to provide an effective interagency mechanism for sharing information as well as workload. This mechanism was reviewed by the UN Joint Inspection Unit in 2011, with the result that the UN General Assembly in 2013 approved revised terms of reference which recognized “the need to strengthen the central role of the Division for Ocean Affairs and the Law of the Sea and the need to enhance transparency and reporting of the activities of UN-Oceans to Member States.”

Europe presents an especially interesting case study for ocean management. In a recent consultation, it was found that there is broad agreement that the current framework for ocean governance is not effective enough to ensure sustainable management of the ocean, not because the framework itself is

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9 “About UN Oceans,” UN-Oceans, last updated 23 May 2017, http://www.unoceans.org/about/en/.
wrong, but because signed agreements are often not implemented, and there is a lack of co-ordination.\textsuperscript{10} Perhaps the most elegant and striking depiction of the complex system of ocean organizations, agencies, and jurisdictions in the European Union can be seen here in one of the authors’ ‘Periodic Table of European Marine and Maritime Elements in Support of Ocean Science’ (Figure 2). This periodic table summarizes and illustrates in a simple, comprehensive, and understandable manner the complexity of ocean governance at the European level alone. In fact, the number of ocean-related intergovernmental and non-governmental organizations has exploded over the past century,\textsuperscript{11} stimulated by the fact that these organizations increasingly participate in international political processes. Most of these organizations have developed in North America and Europe, which demonstrates the aspirational vision of the Western world to be influential to policy leaders of most developed countries.\textsuperscript{12}

\textsuperscript{10} European Commission, Directorate-General for Maritime Affairs and Fisheries, \textit{Summary of the Results of the Public Consultation on International Ocean Governance} (Brussels: European Commission, 2015), 2, https://ec.europa.eu/info/sites/info/files/consultation-ocean-governance-summary_en_o.pdf.

\textsuperscript{11} E.A. Turner, “Why Has the Number of International Non-governmental Organizations Exploded since 1960?” \textit{Cliodynamics} 1, no. 1 (2010), 81–91.

\textsuperscript{12} L. Valdés, J. Mees and H. Enevoldsen, “International Organizations Supporting Ocean Science,” in \textit{IOC-UNESCO, Global Ocean Science Report: The Current Status of Ocean Science Around the World}, eds., L. Valdés et al. (Paris: UNESCO, 2017), 146–169.
So, what is the solution to this ‘fragmented ocean governance’? Is there one? Should there be one big organization for the global ocean that covers everything? How do we create more order out of the apparent chaos? How do we more effectively bring together the economic, environmental, and social pillars of sustainability in our pursuit of a blue economy? We offer two examples where attempts are being made to address the inefficient stovepiped approach to ocean issues.

First, beginning in 2010, a series of workshops took place in Monaco to address the issue of the economic impacts of ocean acidification. Sponsored by several organizations and spearheaded by the IAEA’s Ocean Acidification International Coordination Centre, the organizers put together “the first real multidisciplinary meeting on ocean acidification” in an effort to produce viable recommendations to policy-makers for minimizing both the human and biodiversity costs of ocean acidification. All four workshops held to date brought together the worlds of natural sciences and economics to examine ocean acidification impacts on ecosystems, fisheries and aquaculture, coastal communities, and most recently, tropical coral reefs. This has been an extremely interesting experiment, since for the most part economists and natural scientists speak two different languages. Yet, over time, the language gap has been narrowing and several cohesive policy-relevant publications have resulted. The world is beginning to take notice of ocean acidification, and the terminology is now part of public parlance.

A second example involves a smaller geographic focus but an expanded list of participants. The Ocean Frontier Institute (OFI), headquartered at Dalhousie University in Halifax, Nova Scotia, Canada, and co-led with Memorial University of Newfoundland and Labrador and the University of Prince Edward Island, is a new international hub for ocean research. It brings together elite researchers and institutes from both sides of the Atlantic to understand the changing ocean—specifically the North Atlantic and Canadian Arctic Gateway—and to create safe, sustainable solutions for ocean development. OFI is truly interdisciplinary. It brings together oceanographers, marine biologists, lawyers, social scientists, management specialists, computer scientists, and engineers to focus on both ocean changes and ocean solutions. It is also transnational, representing an historic partnership among the flagship universities of three Atlantic Canadian provinces along with eight organizations from France (LabexMER), Germany (GEOMAR, Alfred Wegener Institute, 13 “Economics of Ocean Acidification: Bridging the Gap between Ocean Acidification Impacts and Economic Valuation,” International Atomic Energy Agency, https://www.iaea.org/ocean-acidification/page.php?page=2237, last accessed 21 February 2018.
CAU-Kiel), Ireland (Marine Institute), Norway (Institute of Marine Research), and the United States (Woods Hole Oceanographic Institution, Lamont-Doherty Earth Observatory of Columbia University). And it is cross-sectoral, involving academia, federal government scientists, managers, regulators and policy-makers, provincial governments, and more than twenty private sector companies, all aimed at collaborating to ensure the safe and sustainable development of the ocean frontier. It is as yet early days, but many agree that this inclusive approach holds great promise for success.

Will initiatives such as these instantly cure all the governance fragmentation realities noted above? Of course not. But they will help us refocus our efforts in saving the most important ecosystem we have—our global ocean. Mme. Mann Borgese would surely approve.