

Golden Gate University Law Review

Volume 34

Issue 3 *Environmental Law Journal Symposium*
Edition

Article 7

January 2004

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Recommended Citation

Montserrat Gorina-Ysern, *World Ocean Public Trust: High Seas Fisheries After Grotius Towards a New Ocean Ethos?*, 34 Golden Gate U. L. Rev. (2004).
<http://digitalcommons.law.ggu.edu/ggulrev/vol34/iss3/7>

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ARTICLE

WORLD OCEAN PUBLIC TRUST: HIGH SEAS FISHERIES AFTER GROTIUS – TOWARDS A NEW OCEAN ETHOS?

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INTRODUCTION

The international law of the sea has not afforded adequate protection to marine life and marine habitats, especially on the high seas, even though the laws of the sea rules in force are virtually universal. This paper illustrates how the international law duty to conserve marine life, and protect and preserve the marine environment of the high seas, is in a precarious state. It considers calls by conservation groups for effective governance of high seas marine life and habitats. The poor status of high seas marine life and habitat governance is mainly due to the lack of will, or lack of capacity, of governments to comply effectively with existing rules, through effective governance and enforcement mechanisms. As a result of this, marine species and marine habitats have not been protected adequately against pollution and commercial overexplo-

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tation. Many fish stocks are highly migratory, or they straddle across national Exclusive Economic Zone (hereinafter "EEZ") boundaries, and between national boundaries and high seas areas. The ability of States to exclude foreign fishing nations from fishing within EEZs puts pressure on fishing nations to seek other high seas lucrative areas where they can increase fishing operations.¹ The living resources of the sea are the source of sustenance and revenue for millions of people directly and indirectly involved in fishing industries.² The rate of commercial exploitation of marine living resources, however, is said to threaten many species, as well as the livelihood of many communities. Some gear and equipment used in marine capture fishing results in the irreversible destruction of marine habitats.³ Concerted efforts to conserve marine species date back to the Nineteenth Century. During the Twentieth Century, States made considerable institutional efforts at the national, regional, sub-regional, and global levels to manage and conserve marine species, and to protect and preserve the marine environment.

Since 1991, the International Maritime Organization (hereinafter "IMO") has recognized the need to place certain limits upon the traditional freedom of fishing through the adoption of Marine Protected Areas (hereinafter "MPAs"), especially no-take marine reserves, and upon the traditional freedom of navigation through Particularly Sensitive Sea Areas (hereinafter "PSSAs") and other IMO shipping regulations in

¹ Chris Hedley, *International Relations and the Common Fisheries Policy: the Legal Framework*, Internet Guide to International Fisheries Law (2000-2001), available at <http://www.oceanlaw.net/hedley/pubs/bergen2000.htm> (last visited Mar. 3, 2004).

² THE WORLD BANK GROUP, SUSTAINABLE FISHERIES WORKSHOP (Jan. 22-23, 2002), available at <http://lnweb18.worldbank.org/ESSD/ardext.nsf/26ByDocName/FisheriesAquacultureCaptureFisheriesSustainableFisheriesWorkshopProceedings> (last visited Mar. 10, 2004); see also ASIAN DEVELOPMENT BANK, THE BANK'S POLICY ON FISHERIES (Sept. 1997), available at <http://www.adb.org/Documents/Policies/Fisheries/default.asp?p=policies> (last visited Sept. 5, 2003); FOOD AND AGRICULTURAL ORGANIZATION, THE STATE OF WORLD FISHERIES AND AQUACULTURE (2002), available at <http://www.fao.org/docrep/005/y7300e/y7300e00.htm> (last visited Mar. 3, 2004).

³ It is estimated that the marine capture fishing industry accounts for seventy-five percent of total world output of fish and shellfish and that seventy percent of fish stocks world-wide are being exploited at or beyond the level of sustainability. See *Oceans in Trouble*, N.Y. TIMES, Jan. 19, 2003; see also *infra* note 82 for the mortality rate of dolphins, whales and porpoises in spite of the Driftnet Moratorium.

national EEZs.⁴ As outlined below, these efforts were enhanced by the adoption in 1995 of the United Nations Fish Stocks Agreement and the Food and Agricultural Organization's (hereinafter "FAO") Code of Conduct for Responsible Fishing. However, the freedoms of navigation and fishing, particularly on the high seas, tend to prevail over other concerns. Protecting marine life in MPAs and PSSAs is a matter of great concern for marine scientists and conservation groups.⁵

These concerns were outlined in scholarly fashion by Professor Michael Orbach, of Duke University, at the Fourth Annual Roger Revelle Commemorative Lecture, held at the National Academy of Sciences (hereinafter "NAS") in Washington D.C. on November 13, 2002. Increasingly, a growing number of

⁴ PSSAs are areas of the seas and oceans that need special protection because of their ecological, economic, cultural or scientific significance, and they are vulnerable to shipping activities. See http://www.ngo.grida.no/wwfneap/Projects/Reports/PSSA_WaddenSea_English.pdf (last visited Mar. 3, 2004). See also INTERNATIONAL MARITIME ORGANIZATION, IMO – TOWARDS SUSTAINABLE DEVELOPMENT AT JOHANNESBURG 2002, at 1 (2002), available at http://www.imo.org/Newsroom/mainframe.asp?topic_id=741 (last visited Mar. 3, 2004). Changes to MARPOL 1973/78, Annexes I, II, and IV, were introduced to provide additional mandatory measures for the protection of key areas against marine pollution. There are currently six designated PSSAs: The Great Barrier Reef (1990 off the Australian coast), the Sabana-Camaguey Archipelago (1997 off the coast of Cuba), the Malpelo Island (2002 off the coast of Colombia), the Florida Keys (off the coast of the U.S. in 2002), the Paracas National Reserve (2003 off Peru's coastline), and the Wadden Sea (2003 off the coastlines of Denmark, Germany and the Netherlands); see also INTERNATIONAL MARITIME ORGANIZATION, MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC), 49TH SESSION (2003), available at http://www.imo.org/InfoResource/mainframe.asp?topic_id=109&doc_id=2798 (last visited Mar. 3, 2004). In July 2003, the Marine Environment Protection Committee (MEPC), of the IMO, at its 49th session, agreed to consider the establishment of a Western European Waters PSSA at the regular session of the MEPC in October 2004, as proposed by Belgium, France, Ireland, Portugal, Spain and the U.K. *Id.* In an earlier proposal, these States had sought to ban the carriage of heavy fuel oil in single hull tankers in the PSSA. This proposal, however, was withdrawn and it was agreed, instead, that the MEPC would consider a 48 hour reporting rule for ships carrying certain cargoes and entering the PSSA, and that, in the interim, the concerned States should raise the issue with the IMO's Legal Committee. MEPC is also scheduled to discuss the extension of the Great Barrier Reef PSSA, as proposed by Australia and Papua New Guinea, to cover the Torres Strait Region and clarify compulsory pilotage measures therein.

⁵ See NATIONAL RESEARCH COUNCIL, MARINE PROTECTED AREAS: TOOLS FOR SUSTAINING OCEAN ECOSYSTEM (2001), available at <http://www.nap.edu/books/0309072867/html/> (last visited Mar. 3, 2004). See also L. A. KIMBALL, INTERNATIONAL OCEAN GOVERNANCE (2003): USING INTERNATIONAL LAW AND ORGANIZATIONS TO MANAGE MARINE RESOURCES SUSTAINABLY (IUCN2001); AND JEAN-MICHEL COUSTEAU'S OCEAN FUTURES SOCIETY, WORLD'S LEADING SCIENTISTS ISSUE UNPRECEDENTED PLAN FOR PROTECTING OCEAN AND MARINE LIFE, available at http://www.oceanfutures.org/press/2003/pr_06_05_03.asp (last visited Mar. 3, 2004).

ocean conservation and marine biology experts are calling for the urgent reappraisal of the freedom of high seas fishing.⁶ In essence, Orbach espouses a new ocean ethos, a “World Ocean Public Trust” (hereinafter “WOPT”), by virtue of which large sections of the high seas should be “enclosed” for the purpose of protecting marine life therein, through the adoption of public trust doctrines such as those applied to protect terrestrial wildlife. This article explores the concerns raised by conservation groups and evaluates the concept of a WOPT and its feasibility in light of international law of the sea regimes.

Section I outlines the main elements of Orbach’s vision for the enclosure of the world ocean, and discusses the concept of a WOPT as embraced by a growing constituency of conservation groups worldwide. Section II provides a summary review of the origin and development of the freedom of fishing as one of the fundamental freedoms of the high seas, with its crystallization under international law through the work of Hugo Grotius, its major exponent in the Western world. It also explores the differing property and stewardship rights of States over coastal areas and their obligations regarding high seas marine living resources conservation. Section III reviews relevant international law instruments, including the 1982 Third United Nations Convention on the Law of the Sea (hereinafter “UNCLOS”),⁷ 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 (referred to as U.N. Fish Stocks Agreement or UNFSA),⁸ regional and international treaties, and other arrangements aimed to establish mechanisms for the study, conservation, exploitation and management of marine living resources on the high seas. It evaluates the effectiveness of these

⁶ *Executive Summary* to DEFYING OCEAN’S END: AN AGENDA FOR ACTION (2003) available at http://www.defyingoceansend.org/DOE_executivesummary.pdf (last visited March 7, 2004).

⁷ United Nations Convention on the Law of the Sea (“UNCLOS”), U.N. Doc. A/Conf.62/122 (1982) (Montego Bay, Jamaica, Dec. 10, 1982. Entered into force Nov. 16, 1994, with 143 parties as of Aug. 2003), reproduced at 21 I.L.M. 1261 (1982).

⁸ Agreement for the Implementation of the Provisions of UNCLOS (Dec. 10, 1982) (entered into force Dec. 11, 2001, with 36 parties as of Aug. 2003), reproduced at 34 I.L.M. 1542 (1995). Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

mechanisms and suggests that, although these regimes have curtailed the freedom of fishing considerably, in practice, they have been insufficient to ensure the optimal conservation of marine species. Section IV analyzes the feasibility of implementing a new ocean ethos for marine life conservation in light of models that explore policy change within and among States, including proposed global environment governance models.

I. TOWARD A NEW OCEAN ETHOS? PROFESSOR ORBACH'S VISION

The NAS, through its Ocean Studies Board (hereinafter "OSB"), instituted the Roger Revelle Commemorative Lecture series to honor the late Professor Roger Revelle (1909-1991), of the Scripps Institution of Oceanography, and to highlight the links between the ocean sciences and public policy.⁹ Professor Orbach delivered the Fourth Annual Roger Revelle Commemorative Lecture at the NAS in Washington, D.C. in 2002.¹⁰ In his

⁹ The National Academy of Sciences (NAS) is "a private, nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare." It advises the U.S. federal government on scientific and technical matters. The NAS instituted the Roger Revelle Lectures in 1999. The first three speakers in the series were Dr. Peter Brewer (1999), Senior Scientist at the Monterey Bay Aquarium, Dr. Shirley A. Pomponi (2000), Director of the Division of Biomedical Research at Harbor Branch Oceanographic Institution, and Dr. Marcia K. McNutt (2001), President and CEO, of the Monterey Bay Aquarium Research Institute. See NATIONAL ACADEMY OF SCIENCES, BEYOND THE FREEDOM OF THE SEAS: OCEAN POLICY FOR THE THIRD MILLENNIUM (Fourth Annual Roger Revelle Commemorative Lecture, Nov. 13, 2002). Professor Revelle was a recognized world leader in the field of oceanography. Professor Revelle was instrumental in the creation in 1960 of the Intergovernmental Oceanographic Commission (IOC) of UNESCO in Paris (France). See <http://ioc.unesco.org/iocweb/index.php> (last visited Mar. 10, 2004). Revelle's research and scholarship on global warming and the role of carbon dioxide led to pioneering international cooperation programs, including the International Indian Ocean Expedition, and his expertise extended to broader fields of scientific and social science interests, including geophysics, ocean resources, and population dynamics. Revelle considered these to be vexing problems for humanity because they were related to finding solutions to widespread poverty, malnutrition, lack of security, and precarious levels of education worldwide. *Id.*

¹⁰ NATIONAL ACADEMY OF SCIENCES, *supra* note 10, at 5. Professor Orbach is Director of the Duke University Marine Laboratory and the Coastal Environmental Management Program in the Nicholas School of Environment and Earth Sciences at Duke University. During the course of his eminent career, Orbach has engaged in a broad range of economic, social science, cultural and social anthropology studies relating to ocean resources conservation and ocean uses, including collaborative research and policy making in coastal and marine issues across the U.S., Mexico, Central America, the Caribbean, Alaska, and the Pacific. He has played a leading role in ocean sci-

lecture entitled “Beyond Freedom of the Seas,”¹¹ Orbach proposed the following thesis:

[I]t is time to “enclose” the world ocean. I use the term “ocean” in the singular to emphasize the connectedness of all of the world’s major saltwater bodies, with each other and with the land and the atmosphere as well . . . In the most general sense, to “enclose” the ocean is to exert control over access and use rights and privileges throughout the world ocean, in particular what is now referred to as the “high seas,” the area more than 200 nautical miles from shore. Such enclosure must necessarily include changes in our cultural perceptions of appropriate behavior toward ocean space and resources in all parts of the world ocean, including such concepts as the “precautionary principle” and our perception of ocean resources along the commerce-recreation-aesthetics-continuum.¹²

Orbach’s review of governance institutions leads him to suggest that there has been a historical progression from lower to “higher densities of human use” of terrestrial, ocean and atmospheric areas. Governance institutions for terrestrial space and resources were influenced by values that placed the latter under private property rights or under public trust controls. These institutions regulate a range of human behaviors and restrict access to the historical “open access, common pool” areas.¹³ Atmospheric space governance institutions have been developed for the benefit of humankind. Ocean areas have been enclosed out to 200 nm from shore.

Ocean governance institutions, however, have been premised on the inability of any nation to control use or access to high seas areas, and on the perception that living resources are inexhaustible. Orbach finds no technical reasons to justify dif-

ence and policy in the U.S. He has performed advisory roles, special appointments to U.S. federal and state agencies, membership and founding memberships in a wide range of organizations devoted to the study and implementation of ocean policies, including conservation of oceanic resources. *Id.* at 5.

¹¹ *Id.* at 6-23. The lecture is divided into six themes, with an introduction. The themes are as follows: Human Governance Institutions, Governance on Land and Ocean, Emergence of the “Freedom of the High Seas,” Ocean Space and Resources in the Broader Perspective, Who Owns the Ocean, and The Future of Ocean Governance. *Id.*

¹² *Id.* at 6.

¹³ *Id.* at 8, 14.

fering treatments for terrestrial, atmospheric and ocean areas.¹⁴ He therefore proposes: (1) enclosing large areas of high seas through a comprehensive system of governance institutions not dissimilar to those established by the European Community's Common Fisheries Policy, or by the International Seabed Authority for the management of non-living marine resources. This system would seek to protect marine life against over exploitive and predatory fishing practices; (2) apply the precautionary approach to ocean governance regimes to overcome the obsolete notion that marine living resources are inexhaustible; and (3) incorporate public trust notions, similar to those prevailing on land, to protect marine life and to question cultural assumptions behind the reason for not treating some marine life as "wildlife."¹⁵ For Orbach, the freedom of high seas fishing has outlived its legitimacy because the current state of marine species over-exploitation and the rate of marine species extinction require ocean policy-makers to consider, implement, and enforce a post-Grotian ethos for the enclosed world ocean.¹⁶

From an international law of the sea perspective, the relevant aspect in the mounting calls by conservation groups for "ocean enclosure" of high seas areas is to evaluate its meaning and feasibility in light of prevailing norms and principles. This analysis is carried out below. It seems desirable, however, to point out two things: First, the momentum gained by these concerned calls has been considerable and continues to grow;¹⁷ and

¹⁴ *Id.* at 17-18.

¹⁵ *Id.* at 16-19.

¹⁶ *Id.* at 6-23. In his Lecture, Orbach does not define the meaning of "ethos." The term is defined as "the distinguishing character, sentiment, moral nature or guiding beliefs of a person, group or institution." Ethos is translated from the ancient Greek into modern English as "custom or character." Ethics, on the other hand, refers to an organized "discipline dealing with what is good and bad and with moral duty and obligation," and as a theory or system that governs individual or professional groups. WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 426-27 (1984). Ethos, therefore, seems to precede ethics because it can lead to a specific theory or system of beliefs. In this sense, a new ocean ethos implies a new way of thinking that may eventually transform the current theories of moral duties and obligations of States with regards to marine life, as well as the legal duties and obligations that may be subsequently adopted as a system of binding international law by those States to govern ocean space and marine living species.

¹⁷ See *World Summit on Sustainable Development 2002 and its Implications for Fisheries*, Food and Agricultural Organization (FAO) Committee on Fisheries, 21st Sess., (2003)(Rome, Italy, Feb. 24-28, 2003), available at <http://www.fao.org/docrep/meeting/005/y8294E.htm> (last visited Mar. 10, 2004); World CONSERVATION UNION, PUTTING PEOPLE BACK IN MARINE PROTECTED AREAS: U.S.

second, the term “enclosure” is absolutely not meant as a wholesale privatization of the high seas (as was the case with the English Improvers who abolished the Commons in the 18th and 19th centuries),¹⁸ but rather as a means to place large areas of the high seas, and even the entire high seas, under an

STRATEGY FOR SOCIAL SCIENCE RESEARCH IN DEVELOPMENT (June 2002) available at http://iucn.org/themes/wcpa/newsbulletins/news/june02/news_june02.htm#http://www.mpa.gov (last visited Mar. 10, 2004); see also *Report on the Work of the United Nations Open-Ended Informal Consultative Process on Oceans and Law of the Sea*, para. 20 (c), U.N.G.A. Doc. A/58/95 (June 26, 2003) (whereby a call was made for “inviting relevant bodies at all levels, in accordance with their mandate, to consider urgently how to better address, on a scientific and precautionary basis, the threats and risks to vulnerable and threatened marine ecosystems and biodiversity beyond national jurisdiction; how existing treaties and other relevant instruments can be used in this process consistent with international law, in particular UNCLOS, and the principles of an integrated ecosystem-based approach to management, including the identification of marine ecosystem types that warrant priority attention; and to explore a range of potential approaches and tools for their protection and management”); see also *G-8 Leaders Pledge Marine Protection, Clean Waters*, ENVIRONMENTAL NEWS SERVICE (June 3, 2003), available at <http://www.ens-newswire.com>. “The establishment of ecosystem networks of marine protected areas by 2012 in their own waters and regions is a priority under the action plans the leaders said, and they pledged to work with other countries to help them establish marine protected areas in their own waters.” *Id.* See also John Whitfield, *Europe Votes for Marine Reserves. Network of Protected Areas Needed by 2010 to Safeguard Sea Fish and Coral*, NATURE (July 1, 2003), available at <http://www.nature.com/nsu/030630/030630-2.html> (last visited Mar. 10, 2004).

¹⁸ Orbach’s reference to “enclosure” and “open access, common pool,” summons up the works of William Forster Lloyd, *Two Lectures on the Checks to Population* (1833), and, more relevantly, of Garret Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243-8 (1968), available at <http://dieoff.com/page 95.htm> (last visited Mar. 10, 2004). The “commons” was the predominant resource management institution in English agriculture for centuries. The commons was community property subject to community control. Hardin argued that the tragedy of the commons was a pasture open to all that led to its overexploitation by the rush of men, “each pursuing his own best interest in a society that believes in freedom of the commons. Freedom of the commons brings ruin to all.” Susan S. Hanna has argued that Hardin’s description of the commons was limited to a minor part of a larger polemic on world population and that his thesis has led to a “wide range of arguments against common property as a resource management institution.” Susan S. Hanna, *The Eighteenth Century English Commons: A Model for Ocean Management*, 14 OCEAN & SHORELINE MANAGEMENT 155, 158 (1990). Hanna argues that a detailed picture of the English commons is in stark contrast to the sketch drawn by Hardin because, rather than “being a free-for all,” the commons was characterized by controlled use.” *Id.* at 161. It was also a stable institution that lasted for hundreds of years, a “system designed to limit exploitation in order to sustain a resource base.” She observes that the elimination of the commons came about as a result of a “privatization movement called enclosure,” led by large landowners who, through Acts of Parliament sanctioning private property rights, could maximize profits by using new technology and enjoyed greater autonomy under private property rights over the commons. *Id.* at 162. The enclosure movement led to violent protests, as it resulted in the “loss of subsistence for a whole class of people”, and “was a plain enough case of class robbery....” *Id.* at 163 (quoting E. THOMSON, *The Making Of The English Working Class* (1963).

effective global management regime. Within a national EEZ, some States implement a legally recognized right to fish by private companies, in the form of Individual Transferable Quotas (hereinafter “ITQs”).¹⁹ ITQs would not apply to high seas areas, however, where the property rights of fishing nations are not defined or established clearly. Ocean areas have also been “enclosed” under Regional Fisheries Management Organizations (hereinafter “RFMOs”) for management purposes, without privatizing the areas enclosed under traditional property rights.²⁰

II. DEFYING OCEAN’S END CONFERENCE

The practical implications of Orbach’s vision for “enclosure of the world ocean” can be further ascertained through the work and conclusions of the Defying Ocean’s End Conference (DOE), held at Los Cabos, Mexico, on May 29-June 3, 2003.²¹ DOE sought “to develop an approach to articulating a global plan of action” for high seas marine life.²² The *Unknown Ocean* thematic group at DOE was chaired by Professors Larry Madin, of Woods Hole Oceanographic Institution, and Fred Grassle, of Rutgers University. They emphasized that many

¹⁹ See *infra* note 78 and accompanying text for a brief discussion of property rights.

²⁰ See *infra* Section III.

²¹ DEFYING OCEAN’S END: AN AGENDA FOR ACTION, *supra* note 7, at 2. DOE was the culmination of a year-long effort by a team of 150 experts from more than 20 States, including ocean scientists, economists, conservationists, senior government representatives, corporations and the media. DOE was sponsored by the Gordon and Betty Moore Foundation, BP Corporation, Environmental Systems Research Institute (ESRI), Royal Caribbean Cruise Lines, The Alexander Henry Foundation, and an Anonymous Donor. Collaborating institutions included the Center for Applied Biodiversity Science at CI, Conservation International, Natural Resources Defense Council, The Nature Conservancy, The Ocean Conservancy, IUCN (formerly International Union for the Conservation of Nature), and World Wildlife Fund.

²² *Id.* at 2. The DOE Conference was structured into 5 regional case studies, 7 thematic working groups and a business team. The thematic groups included Ocean-Use Planning and Marine Protected Areas, Economic Incentives and Disincentives, Land-Ocean Interface, Maintaining/Restoring Functional Marine Ecosystems, Communications, Ocean Governance, and The Unknown Ocean. *Id.* at 3. DOE Power-point presentations can be viewed at <http://www.defyingoceansend.org> (last visited Mar. 10, 2004). See also CONSERVATION INTERNATIONAL, NEW MARINE PROTECTED AREA TO SAFEGUARD WORLD’S LARGEST FISH (July 17, 2003) at http://www.conservation.org/xp/news/press_releases/2003/071403.xml (last visited Mar. 7, 2004); and Alex Kirby, *Donor Gives \$5M to Save Seas*, THE SCIENTIFIC ALLIANCE (June 4, 2003), available at http://www.scientific-alliance.org/news_archives/biodiversity/donorgivesfive.htm (last visited Mar. 10, 2004).

ocean environments are very poorly known and require considerable research and conservation action quickly, before human impacts result in potentially irreversible loss of habitat type and biodiversity, including ocean species not yet discovered.²³ The *Ocean Governance* thematic group, chaired by Orbach, stressed that sixty percent of the oceans remain under the high seas regime where governance structures for the management of ocean resources and environments are “underdeveloped, sector-specific, inconsistent, conflicting, or non-existent.”²⁴ These scientific, legal, policy and management inadequacies were regarded as deleterious in light of increasing uses of high seas areas for industries concerned with fishing, pharmaceuticals, genetic resources, mariculture, wind, wave, and geothermal energy extraction.

DOE therefore recommended the initiation of international discussions leading to the “policy enclosure” of the world ocean through a “framework agreement addressing all human activities that affect the ocean, and providing for ecosystem-based, integrated, precautionary management of high seas as a World Ocean Public Trust.” The specific elements of this proposal include: (1) integrating governance regimes across use sectors, levels of government and the land-sea boundary; (2) building scientific and policy capacity, especially in the less developed nations; (3) applying principles in a comprehensive manner, including the best scientific evidence available, the precautionary approach, “polluter pays,” and public trust compensation (cost recovery and economic rent). The framework agreement advocated would require: (1) designating ocean living resources as “wildlife,” using legal and policy frameworks analogous to those governing terrestrial and avian wildlife; (2) shifting responsibilities for implementation and enforcement of ocean laws from flag and port States to an independent, verifiable international process; and (3) developing a decision-making process based on majority or super-majority voting, rather than consensus, for prompt international decisions.²⁵ Finally, DOE recommended seeking a U.N. General Assembly Resolution establishing a moratorium on bottom trawling of seamount re-

²³ DEFYING OCEAN’S END: AN AGENDA FOR ACTION, *supra* note 6, at 13.

²⁴ *Id.* at 12.

²⁵ *Id.* at 12.

sources in high seas areas, until an effective management regime is established, with a view to implementing an operational global network of high seas seamount MPA's by 2013. Seamounts are "underwater mountains and hills that rise at least 1,000 meters above the ocean floor," whose long-lived biodiversity is targeted and destroyed by newly developed fisheries for deep-sea species.²⁶

The fleshing out of DOE's WOPT proposal raises many issues. First, DOE's recommendations may be integrated into a broader environmental debate predating and expanding on the World Summit on Sustainable Development (hereinafter "WSSD"). Central to this debate is the need for the establishment of an organization for the world environment.²⁷ Second, capacity building is at the forefront of U.N. agencies with ocean mandates and, therefore, DOE's recommendations in this regard can benefit from the work of these agencies.²⁸ Third, the

²⁶ *Id.* at 16. UNCLOS provides for the establishment of Marine Protected Areas (MPAs) in arts. 194(5) and 162(2)(x). There are numerous global and regional agreements providing for the establishment of MPAs that aim to manage fragile coastal and marine ecosystems, and protect them from threats. The latter include fishing, shipping, seabed-exploration, scientific and archeological activities, tourism, introduction of invasive species and genetically modified organisms, and large-scale industrial activities (i.e. gravel mining, oil drilling, and dredge soil disposal). MPAs may impose a range of restrictions on maritime industrial activity, from no-take zones to those that seek a balance between conservation of the area and management of other conflicting uses of marine resources. MPAs have been established in regions of the Mediterranean Sea, Northeast Atlantic, East Africa, South East Pacific, Caribbean Sea, Antarctica, and the Red Sea.

²⁷ See discussion *infra* Section IV, which explores three proposed models. The WSSD was held in Johannesburg, South Africa, Aug. 26 to Sept. 6, 2002. Some 61 countries and dependencies participated, with over 150 experts from governments, over 100 members of international governmental organizations (IGOs), 150 experts from universities and NGOs, and 19 Ministerial level officials and other Eminent persons. See "Ensuring the Sustainable Development of Oceans and Coasts: A Call to Action," Background Paper No. 7 DESA/DSD/PC2/BP7 (2001)(Co-Chairs' Report from the Global Conference on Oceans and Coasts at Rio+10, Towards the WSSD, Johannesburg, UNESCO, Paris, December 3-7).

²⁸ The notion of capacity building refers to a nation's "human, scientific, technological, organizational, institutional and resource capabilities," as described in UNCED's Agenda 21, para. 37.1. Chapter 17 of Agenda 21 deals with means for its implementation. The notion is included in many provisions of the Convention on Biological Diversity. It has been discussed by the Conference of the Parties (COP) to the CBD. United Nations agencies with ocean mandates are fully committed to the concept of capacity building. See *Oceans and the Law of the Sea: Report of the Secretary-General*, U.N.G.A. Doc. A/57/57 (2002). The second meeting of the U.N. Open-ended Informal Consultative Process (the ICP) on Oceans and the Law of the Sea addressed capacity building at its second meeting, held in New York from May 7-11, 2001. See

precautionary principle as advocated by DOE's WOPT is incorporated into two key international treaties, the 1992 Convention on Biological Diversity (hereinafter "CBD"),²⁹ and the 1995 UNFSA. Identifying how these principles would apply is an important aspect of WOPT objectives.³⁰ Fourth, the listing of endangered species as wildlife for protection against illegal trade under the 1973 Convention on International Trade in Wild Species of Flora and Fauna (hereinafter "CITES") is complex and it can raise conflicts of jurisdiction among institutions with similar mandates.³¹ These difficulties have been considerable even where the protection of wildlife within a nation's natural parks and reserves is carried out under public trust notions.³² The international economic implications of banning trade in very lucrative marine living resources on the high seas is beyond the scope of this study and better left to economists. It is pertinent, however, to stress their relevance and to explore how the notions of *res nullius*, *res communis*, and *res publicae* have a bearing on the concept of "custody" that a WOPT would exercise over high seas marine living resources and habitats.³³ Fifth, the proposed shifting from law of the sea implementation and enforcement by coastal and flag States to a verifiable international process requires a wholesale restructuring of current international law and the *status quo*, which is examined in the second part of Section II below.

Finally, mindful of the "chicken and the egg" dilemma, (i.e. what comes first?), recalled by Professor Lawrence Juda of the

<http://www.un.org>

(http://www.un.org/Depts/los/consultative_process/consultative_process.htm).

²⁹ Adopted in 1992 in Rio de Janeiro, Brazil, by the United Nations Conference on Environment and Development (UNCED), reproduced in 3 I.L.M. 8821 (1992).

³⁰ See discussion *infra* Section III.

³¹ Convention on International Trade in Wild Species of Flora and Fauna, Mar. 3, 1973, 993 U.N.T.S. 243, T.I.A.S. No. 8249. See Alexander Gillespie, *Forum Shopping in International Environmental Law: The IWC, CITES, and the Management of Cetaceans* 33 OCEAN DEV. & INT'L L. 17, 17-18 (2002) (referring to "overlapping areas of interest and competence" among international organizations, such as the International Whaling Commission, CITES and WTO, and advocating that any attempt by CITES to usurp functions from IWC are "*ultra vires*").

³² INTERNATIONAL FISHERIES DIVISION, OFFICE OF SUSTAINABLE FISHERIES, INTERNATIONAL AGREEMENTS CONCERNING LIVING MARINE RESOURCES OF INTEREST TO NOAA FISHERIES (2001), available at <http://www.fakr.noaa.gov/international/99ilmr.pdf> (last visited Mar. 10, 2004).

³³ See discussion *infra* Section II.

University of Rhode Island, in the context of governance,³⁴ it is critical to ask the following key questions relating to the structure and objectives of a WOPT: with regard to conceptual changes to be effected through legislation, how much integration of disparate regimes will be needed, what will need to be integrated and how? With regard to institutional changes, what aspects of current authority and jurisdiction within federal and state organs will nations be willing to modify to ensure the smooth operation of a WOPT? With regard to political changes, how will the WOPT account for all the “externalities” involved as a result of the variety, conflicting uses, and disparate interests held by all stakeholders? And finally, with regard to legal changes, even if a new binding regime for high seas marine life and habitat protection is feasible, how long will it take to implement before important species and habitats are destroyed?

III. THE GREAT SEVENTEENTH CENTURY MARITIME LAW CONTROVERSIES: GROTIUS AND SELDEN

To a large degree, efforts to articulate a legal theory – as distinct to an economic, political or socio-cultural one – for the establishment of a WOPT, rest upon notions relating to the nature of the “*mobile aquatic meadow*,” a simile used by Professor Anthony D’Amato, of Northwestern University School of Law, to refer to the world ocean.³⁵ These efforts also rest on the rights and obligations that flow for States from the legal nature attributed to marine living resources, and on consensual arrangements among States relating to such rights and obligations. In the present context, the simile is apt in portraying why the elusiveness and the vastness of the *mobile aquatic meadow* led Roman and medieval jurists to argue, first under notions of divine law and later under notions of natural law, that the sea was incapable of becoming the object of private

³⁴ Lawrence Juda, *Changing National Approaches to Ocean Governance: The United States, Canada and Australia*, 34 OCEAN DEV. & INT’L L. 161, 169 (2003).

³⁵ ANTHONY D’AMATO, INTERNATIONAL ENVIRONMENTAL LAW ANTHOLOGY 311-60 (Anthony D’Amato & Kirsten Engel eds., 2001), available at <http://anthonydamato.law.northwestern.edu/ILC-2001/Books.htm>.

property.³⁶ The shores of the sea were considered free of access and anyone could exercise the right of fishing therein under the *jus gentium*.³⁷ These long held traditions of freedom gave way under the growing exercise of control (royal prerogative) over the littoral sea (i.e. coastal waters).³⁸ The unfettered power to encroach coastal waters was enhanced by improved navigation techniques that made transatlantic travel possible. For centuries, jurists justified the right of States to rule over (*imperium*) as well as to own (*dominium*) vast expanses of ocean.³⁹ In spite of all the military might deployed to dominate the *mobile aquatic meadow* beyond the narrower coastal waters under national control, towards the end of the 19th century, jurists eventually agreed that nations cannot possess the ocean through effective occupation, and for that reason it should remain free and open to all.

In essence, this was the view advocated by Hugo Grotius in his *Mare Liberum* (1608).⁴⁰ Contrary to lingering misconceptions, it has been argued that the freedom of the high seas “was not disputed by the advocates of a state’s ownership of its territorial waters, with the possible exception of Selden;”⁴¹ nor did Grotius question the royal prerogative to claim sovereignty over the nation’s adjacent seas and fish found within. Grotius took issue with the extent of the royal prerogative, with its physical limits, and with a nation’s effective deployment of physical power to possess large tracts of water by occupation, to

³⁶ See PERCY THOMAS FENN, JR., THE ORIGIN OF THE RIGHT OF FISHERY IN TERRITORIAL WATERS 39-48 (1926). Citing, among others, Placentinus through to Accursius (1182-1260), considered the last of the great Glossators. In the doctrine of the Digest of Justinian (6th century BCE), the sea was regarded as common to all because it could not be appropriated. Its *proprietas* was considered *nullius* or belonging to no-one. It was admitted, however, that Caesar could exercise jurisdiction over it. This state of legal doctrine is said to have prevailed throughout the middle ages, until the rise of the nation State). See also R.P. ANAND, ORIGIN AND DEVELOPMENT OF THE LAW OF THE SEA 59 (1982). Professor Anand provides a quote from the ruler of Macassar dated 1615 to the effect that: “God has made the earth and the sea, has divided the earth among mankind and given the sea in common. *It is a thing unheard of that anyone should be forbidden to sail the seas....*” *Id.*

³⁷ FENN, *supra* note 36, at 115, 135, 138.

³⁸ See *infra* notes 54-66 and accompanying text.

³⁹ 1 D.P. O’CONNELL, THE INTERNATIONAL LAW OF THE SEA 14 (2 Vols., 1982).

⁴⁰ *Id.* at 9. According to Professor O’Connell, *Mare Liberum* appears to have been published anonymously in 1608 as part of Chapter 12 of an earlier work written in 1604, believed to have been a legal opinion to the Dutch East India Company in support of the capture of a Portuguese galleon off the strait of Malacca in 1602.

⁴¹ FENN, *supra* note 36, at 219.

the exclusion of others from the freedom of navigation.⁴² Grotius was concerned with supporting the freedom of navigation for Dutch ships to engage in maritime trade with the East. In his *Mare Clausum* (1635), John Selden defended the right of English monarchs to exercise authority over the sea through sovereign claims that justified the Crown's property over the adjacent sea and its fisheries.⁴³

The current law of the sea demonstrates that both Grotius and Selden succeeded in their respective legal positions. The freedoms of navigation and fishing are freedoms of the high seas, as Grotius advocated.⁴⁴ Coastal States have also succeeded in claiming sovereignty (territorial sea), sovereign rights and jurisdiction (continental shelf/EEZ), over vast expanses of coastal waters and submerged lands, extending outward to 200 nm from shore (and beyond, where the outer continental shelf extends beyond 200 nm from shore pursuant to UNCLOS, Art. 76), in a trend that has led to the effective occupation and "enclosure" of these areas to the exclusion of other States for the purpose of fishing, as advocated by Selden, and for other purposes.⁴⁵

The juridical controversy raised by the works of Grotius and Selden may seem remote and arcane today. It is desirable, however, to explore the notions of *res communis*, *res nullius*, and *res publicae*, in so far as they provide a legal basis for a WOPT. Writers concerned with ocean governance and common resources have widely discussed these notions.⁴⁶ The feasibility of a WOPT, on the other hand, will prove to be a matter for international diplomacy, rather than for international law, because it is dependent on the response that the community of independent States is willing to give to the growing calls by

⁴² *Id.* at 220. See also O'CONNELL, *supra* note 40, at 11-13.

⁴³ FENN, *supra* note 37, at 220.

⁴⁴ Art. 2 Geneva Convention on the High Seas; art. 87, United Nations Convention on the Law of the Sea (UNCLOS); Preamble of the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (recognizing that "all States have the right for their nationals to engage in fishing on the high seas"); UNFSA, art. 4: "Nothing in this Agreement shall prejudice the rights, jurisdiction and duties of States under [UNCLOS]. This Agreement shall be interpreted and applied in the context of and in a manner consistent with [UNCLOS]."

⁴⁵ UNCLOS, arts. 55-57, recognizing the right of States to establish an Exclusive Economic Zone not exceeding 200 nm.

⁴⁶ See *infra* notes 67-89 and accompanying text.

conservationists for the shifting of high seas fisheries enforcement away from the *status quo* (coastal and flag State enforcement) to “an independent, verifiable international process,” as proposed by the DOE conference.

The central issue, however, is neither legal nor political, but one of time running out: how long will it take for States to implement measures (legal, political, economic) that are effective in preventing the overexploitation and depletion of marine species, and the destruction of high seas habitats by vessels registered under their flag?⁴⁷

A. MARE LIBERUM V. MARE CLAUSUM

The history of the law of the sea, as the late Professor O’Connell, of the University of Adelaide, observed, “has been dominated by a central and persistent theme: the competition between the exercise of governmental authority over the sea and the idea of the freedom of the seas.”⁴⁸ The doctrinal controversy between Grotius and Selden arose as a result of an unfettered exercise of naval might by European imperial powers between the 1400’s and 1800’s.⁴⁹ It resulted in sovereign claims over large areas of land, seas adjacent to the coastline, and

⁴⁷ Contrary to perceptions that the ocean bounty is inexhaustible, the stark reality is that “we face a world in which the *fishing capacity* of the fleets operating in many key areas has outpaced the *reproductive capacity* of the fish stocks in those areas. The past decade has seen a growing incidence of fishing vessels that do not abide by agreed rules. Serious concerns have also arisen about the effects of fishing operations on other marine life and on the marine environment as a whole.” Statement by Ambassador Mary-Beth West to the U.S. Commission on Ocean Policy (Nov. 2001). The writer assisted the USCOP in the drafting of report chapters dealing with international law of the sea issues.

⁴⁸ O’CONNELL, *supra* note 39, at 1. See also ALFRED W. CROSBY, *ECOLOGICAL IMPERIALISM: THE BIOLOGICAL EXPANSION OF EUROPE*, 900 (1986).

⁴⁹ Under the Law of Nations in the period comprised between the 15th and 18th centuries, mere discovery of *terra nullius* (vacant land) in the form of physical or visual apprehension, disembarkation or even extended exploration and penetration into the region were not considered enough to grant the conqueror a valid title over the land claimed as discovered. Such acts gave an “inchoate” title or a right to occupy the land, but the right had to be perfected by actual possession, the establishment of permanent settlements and the cultivation of the soil within a reasonable period of time after the initial sighting. A valid title could be acquired, however, through a formal act or ceremony. The conqueror or explorer could perfect title through this symbolic act of declaration of sovereignty. See KELLER, LISSITZYN AND MANN, *CREATION OF RIGHTS OF SOVEREIGNTY THROUGH SYMBOLIC ACTS 1400-1800*, 148-149 (1938)(quoted in D.H. HARRIS, *CASES & MATERIALS ON INTERNATIONAL LAW* 181 (1991).

over entire seas and ocean areas as well.⁵⁰ Preeminent among the latter claims were those of the Crowns of Castile & Leon (Spain), and Portugal, as sanctioned in the 1493 Inter-Caetera Bull (or Bull of Donation) by Pope Alexander VI.⁵¹ In the 1494 Treaty of Tordesillas, the Crowns of Castile & Leon (Spain) and Portugal agreed to establish a new line of demarcation from pole to pole, at a distance of about 1,300 miles off the Cape Verde Islands. Everything east of the line pertained to Portugal and everything west of the line pertained to Castile & Leon (Spain), except for Brazil, retained by Portugal.⁵² These claims were not recognized by other imperial powers because they curtailed the freedom of commerce and navigation.

It was in the context of the European imperial rush to occupy and conquer distant lands and secure exclusive trade monopolies in exotic products,⁵³ coupled with the increasing exercise of royal prerogative to expand sovereign claims over adjacent seas and over fisheries within by occupation,⁵⁴ that Grotius reacted to protect the interests of his client, the Dutch East India Company, to exercise the right of navigation over the seas as avenues of commerce.⁵⁵ He argued that:

The sea is common to all because it is so limitless that it cannot become a possession of any one, and because it is adapted for the use of all, whether we consider it from the point of view of navigation or of fisheries.⁵⁶

⁵⁰ See RICHARD NATKIEL & ANTONY PRESTON, *ATLAS OF MARITIME HISTORY* (1986). Venice and Genoa had laid claim to large parts of the Adriatic and Mediterranean seas in the 13th and 14th centuries; during the age of exploration, the Crowns of Spain, Portugal, France, England, and Holland fought for colonial empires in the Atlantic, Indian and Pacific Oceans. In the Baltic, Sweden exercised maritime supremacy and in the English Channel English, French and Dutch warships engaged in raging wars during the 16th and 17th centuries.

⁵¹ The Bull sought to reinforce the Pope's assertion of temporal authority over European princes and heathen peoples of the new continent claimed by Columbus in 1492, so that "learned, skilled and experienced men could instruct the heathen in the Catholic faith." See JAMES E. FALKOWSKI, *INDIAN LAW/RACE LAW: A FIVE-HUNDRED YEAR HISTORY* (1992).

⁵² *Id.*, at 13.

⁵³ See NICK ROWLING, *COMMODITIES: HOW THE WORLD WAS TAKEN TO MARKET* (1st ed. , 1987); and *BRIDES OF THE SEA: PORT CITIES OF ASIA FROM THE 16TH-20TH CENTURIES* (Frank Broeze editor, 1st ed. 1989).

⁵⁴ See *supra* note 36; O'CONNELL, *supra* note 39.

⁵⁵ ANAND, *supra* note 36, at 61.

⁵⁶ *Id.* (quoting *Mare Liberum* 28 n.3.).

Between the 15th and 17th centuries, legal theorists articulated doctrines aimed to legitimize maritime trade monopolies. The notions of *res nullius* and *terra nullius* were central in justifying the wholesale occupation of land and ocean space.⁵⁷ These notions succeeded on land and were instrumental in the legitimate expansion of national sovereignty over the territorial sea.⁵⁸ The natural right of States to occupy the seas and oceans (as *res nullius*) in property was universally recognized in 1700. Grotius and Selden were in agreement that property over the sea could be acquired by might. This natural right, however, understood by Selden to arise from a social contract among nations, became increasingly subject, in Grotius' view, to the notion of effective occupation; it had to be intellectually defensible and militarily plausible.⁵⁹ It failed on the latter ground because nations could station a permanent fleet over sections of the high seas, but could not dominate and also appropriate those sections effectively. As O'Connell points out, the Anglo-Dutch, Anglo-French and Dutch-Swedish wars proved the ephemeral character of such domination. By Kestner's time (1705), "[other imperial powers] could only be kept away from areas permanently defended from the shore" and "that practical fact established the boundary between the territorial sea and the freedom of the [high] seas."⁶⁰

For another century, this conceptual boundary was enforced with the cannon-shot rule,⁶¹ had far-reaching practical consequences when associated with the fusion of *imperium* (power to rule) and *dominium* (ownership of the sea) into the concept of maritime jurisdiction. Grotius appears to have advocated that the exercise of territorial jurisdiction depended

⁵⁷ See PETER BUTT, LAND LAW (3rd ed. 1996)(Chapter 25. Native Title – discussing the Australian High Court decision in *Mabo v. Queensland* [No. 2] (1992) 66 A.L.J.R. 408, that the British Crown's acquisition of sovereignty over the (then) colony of New South Wales did not of itself extinguish customary title to land in the colony, thus rejecting the doctrine of *terra nullius* as it might have applied to the conditions of Australia and, by extension, to the Aboriginal Peoples of the continent).

⁵⁸ The first attribution of the term is to Galiani. See O'CONNELL, *supra* note 40, at 60.

⁵⁹ *Id.* at 14.

⁶⁰ *Id.* at 13.

⁶¹ *Id.* at 126. O'CONNELL observes that it is unclear whether the rule originated in Dutch claims in 1610 or in the adoption by Bynkershoek in 1702, although its practice appears to have been a "current standard of diplomatic usage for determining the extent of maritime jurisdiction." *Id.*

upon property, whereas the exercise of personal jurisdiction depended on the relationship between ruler and subject. Beyond territorial boundaries, the sovereign could only exercise *imperium* over its subjects, not over subjects of another sovereign (i.e. or the ships of another sovereign).⁶² The limits of fishery rights were those that could be enforced by the cannon-shot, commonly understood to reach out 3 miles from the shore (or 1 maritime league). Within this range, fisheries were the exclusive property of the coastal nation. Outside this range, there was an unqualified liberty to fish.⁶³

The freedom of the seas, however, was not finally established until the condemnation of slave trade at the 1815 Congress of Vienna, and consecrated in the 1842 Webster-Ashburton Treaty between Great Britain and the U.S. Each nation would enforce anti-slave trade prohibitions separately against vessels flying their respective flags and engaging in the illegal trade.⁶⁴ Anand argues that the freedom of the seas was not consolidated until the middle of the 19th century through the 1856 Paris Declaration of Maritime Law, as the freedoms of navigation and fishing were necessary conditions for free trade and the triumph of prevailing *laissez faire* economic philosophies among European powers.⁶⁵

The juridical controversies over *mare liberum* and *mare clausum* outlined above, rest on the legal nature of the rights enjoyed by the international community of States over the *mobile aquatic meadow*, and over the use of the living and non-living resources therein. For example, the debate over whether the ocean and its non-living resources were *res nullius* or *res communis* was resolved by political, not legal, compromise among UNCLOS III delegates adopting the “common heritage” of humankind principle in Part XI, UNCLOS 1982.⁶⁶ Opponents of the common heritage principle argued that the sea-bed and its subsoil were *res nullius*, belonging to no-one, and could

⁶² *Id.* at 16-18.

⁶³ *Id.* at 126, 514. The “absolute” boundary between the territorial sea and the high seas for fishing purposes appears to have been established in the Convention of 1818 between England and the United States. *Id.*

⁶⁴ O’CONNELL, *supra* note 39, at 1.

⁶⁵ ANAND, *supra* note 36, at 64-65.

⁶⁶ UNCLOS, Part XI, arts. 133-191. See also R.P. Anand, *International Machinery for Sea-Bed: Issues and Prospects*, 13 IND. J. INT’L L. 351, 352 (1973).

therefore be subject of individual appropriation by companies or consortia acting outside the universal regime envisaged. Proponents of the common heritage principle advocated that, both, the high seas and the sea-bed and subsoil were *res communis*, open to everyone, belonging to everyone, and incapable of appropriation by anyone.⁶⁷ This implied that the international community, as a whole, had some form of legal title, or some legal interest, over the seabed and its subsoil. A WOPT could be modeled pursuant to the legal principles adopted for the regulation of deep seabed mining under UNCLOS. The WOPT, however, could also be modeled upon other regimes that have been preserved as the “province of humankind” (i.e. the moon and other celestial bodies), or exclusively for peaceful purposes and in the interest of humankind (i.e. Antarctica).⁶⁸

The feasibility of a *res communis* approach to WOPT would require considerable diplomatic efforts over an extended period of time, before the entire community of independent States might agree upon the establishment of a world authority with effective and legitimate powers to regulate high seas fishing, declare selected marine species as “wildlife,” and set up effective mechanisms for the enforcement of the new regime. Unlike deep seabed mining, where only a few companies have the capacity and the technology required, the over-capacity of ocean going fishing fleets has been widely acknowledged.⁶⁹ This overcapacity would pose problems not dissimilar to those characterizing the current legal status of high seas fisheries conservation enforcement, as explained below. The issue arises of what type of rights would the international community vest upon an organization called upon to administer the WOPT?⁷⁰

⁶⁷ *Id.* at 352.

⁶⁸ It is beyond the scope of this article to address these models at the present time.

⁶⁹ *Oceans and the Law of the Sea: Report of the Secretary-General*, para. 191, U.N. Doc. A/52/487 (1997) (stating that fishing tonnage continued to overgrow between 1991 and 1997).

⁷⁰ Current debates among environmentalists and conservationists have generally been formulated in terms of private property notions as applied on land, including “irrevocable conservation easements,” whereby quota or permit holders would “convey” to the nation or to an international body their right to fish in closed areas of the high seas. Other proposals include trustees, trustors, and beneficiaries of a particular species or habitat. Other models envisage the legal concept of “guardianship,” without resorting to property rights over high seas living resources, to be exercised by a global

In trying to address this question, it is important to remember the well established principle of international law “*nemo plus juris transferre potest quam ipse habet*,” by virtue of which a State cannot transfer a thing, or a title over a thing, to another State or entity unless the transferring State is in possession of a valid title over the thing to be transferred.⁷¹ The same principle would apply to any alleged title claimed by the fishing industry over fishing on the high seas.⁷² A social and political contract among States would make such transfer possible, however, provided that the extent of such a political agreement were virtually universal. There is merit, therefore, in providing here a very succinct review of earlier doctrines developed in the Digest of Justinian and the feudal laws of Europe on the nature of rights to the sea.

Writers read the notion of *res nullius* both narrowly and broadly. In the narrow sense it referred to things that, being susceptible of private appropriation, were without an owner. These things were open to acquisition by occupation.⁷³ Arguably, opponents of a WOPT could embrace this narrow reading of *res nullius* and argue that high seas fisheries are without an owner until appropriated by a fishing vessel, and that the legitimacy of high seas fishing activities is supported by the freedom of the seas and the laws of capture. They could therefore oppose any efforts to introduce changes to the legal *status quo*. This is the most likely reaction to be expected from Distant Water Fishing Nations (hereinafter “DWFNs”) to the WOPT proposed by conservationists.⁷⁴

Res nullius was also read in a broader sense to refer to things that are incapable of appropriation in the form of private ownership.⁷⁵ The same things, however, can be the subject of appropriation by States as *res publicae*, *res universalis*, and *res communes*. In the category of *res publicae*, there are included such things as the sea. The people of the whole world

organization of an environmental protection character. E-mail from Kristina Gjerde, Environmental Solutions International (Tuesday, November 25, 2003 5:21 AM).

⁷¹ Island of Palmas Case (Netherlands v. U.S.) 1928 R.I.A.A. 829.

⁷² See *infra* note 79.

⁷³ FENN, *supra* note 36, at 47, 52-53.

⁷⁴ Distant Waters Fishing Nations is a term applied to “those [nations] that fish predominantly off the coasts of other States, rather than their own coasts.” CHURCHILL & LOWE, *infra* note 85, at 279.

⁷⁵ *Id.* This category would include a range of sacred and religious objects.

(as a unity) have a collective property right over them.⁷⁶ Proponents of a WOPT can argue that the sea is *res publicae* (in the broadest sense), owned by the entire international community of citizens as represented by their States. WOPT proponents can further argue that nations whose fishing fleets overexploit high seas fish and destroy marine habitats belonging to the international public, are responsible for allowing acts of appropriation, “despoliation,” and violation of public and common property rights held by the world’s citizens, because the latter are vested with a collective property right over commonly owned high seas marine life as well as marine habitats. This argument would require the consensus of the international public on the need to vest public ownership over high seas fisheries and habitats upon a world institution. This institution could be the United Nations General Assembly. It could be one of the U.N.’s specialized agencies, such as the FAO, or the United Nations Environmental Program (hereinafter “UNEP”).⁷⁷ It could be a new institution created under a framework agreement, the structure of which could be designed according to the most effective management mechanisms found

⁷⁶ *Id.* In the period of the emperors, the glossators elaborated theories to explain that this *proprietas* was lodged with the monarch who could exercise royal prerogatives over the adjacent sea and its *piscaries* on behalf of the people (the common owners), and could grant exclusive rights of use over the sea, over a sea or river fishery, grants to mark boundaries or domains, to establish an estate’s exemption from payment of port or harbor dues, or the grant of freedom of travel and commerce. FENN, *supra* note 37, at 39, 47. Absent the exercise of this royal prerogative, the sea was open to all, free for all, and so was the right of fishery. *Id.* at 52, 57, 116, 135. Since the origin of the right of fishing was either considered to arise from *jus naturale* or from *jus gentium*, the Monarch could not generally alter this right, although there were doctrines of prescriptive acquisition that granted exclusive rights of quasi-possession of use over public fisheries (i.e. such as in rivers), to certain private persons. Under common law, the *jus piscandi* in the sea and in rivers belonged to all with very few exceptions. These exceptions included fishing in private rivers, fishing prohibited by royal order, where an agreement or convention not to fish existed with a neighbor, where it was customary not to fish for private gain but for the public good, and where immemorial custom prohibited fishing. *Id.* at 138.

⁷⁷ UNCLOS, Annex VIII, identifies FAO as the specialized agency with expertise in disputes relating to fisheries. The FAO was founded in 1945. Its mandate is to raise levels of nutrition and standards of living, to improve agricultural productivity, and to better the condition of rural populations. FAO membership includes over 180 nations and the European Community. See <http://www.fao.org/> (last visited Mar. 8, 2004). UNEP’s mission is “[t]o provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.” See <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=43> (last visited Mar. 8, 2004).

in existing RMFOs, as discussed below, or in the International Seabed Authority (hereinafter “ISA”), on the basis of the universal geographical scope of the resources to be protected and managed.

A property-rights focus in the context of *res nullius*, *res publicae* and *res communis*, has the effect of restricting the debate on the legal nature of the rights and obligations arising for coastal and fishing States over high seas living resources. There are concepts of custody and stewardship that do not involve a strict property-rights based analysis.⁷⁸ Whether custody and stewardship would be best exercised by local, regional, sub-regional, or global communities, is an issue that needs to be explored. In practice, however, in recent negotiations seeking to establish expanded high seas conservation mechanisms, Distant-Water Fishing Nations (“DWFNs”) and coastal States have both claimed “preferential rights” over the marine living resources under consideration.⁷⁹ This reflects a conviction that

⁷⁸ Alison Rieser, *Prescriptions for the Commons: Environmental Scholarship and the Fishing Quotas Debate*, HARV. ENVTL. L. REV. 393, 406 (1999). The protection of a broader ecosystem can be achieved through regimes other than the two “upon which environmental scholarship has focused the most attention-- centralized regulation and property-rights approaches--neither one seems to have any particular advantage.” She refers to Carol M. Rose’s perception that environmentalists have used “the image of a particular resource as part of a larger ecosystem to argue against rights-based regulatory tools like ITQs [Individual Transferable Quotas]” because such measures tend to “elevate the significance of the propertized component and, in effect, over-value them.” Such overvaluation may result in limited and sectoral approaches that disregard the interests of other stakeholders in the whole ecosystem. *Id.* at 405. Rieser further admonishes against the tendency to use property rights as the only approach to governance: “In fisheries management, for example, property rights could be allocated to a community, rather than an individual. Communities are more likely to embody a broader range of values and will therefore balance harvesting decisions against broader spatial and temporal views of the ecosystem. Communities can also enforce limits on individual appropriators through informal norms and sanctions . . . however, the current debate over property-based tools in fisheries management still focuses on the private individual ownership model, despite changes in the law reflecting the new awareness of a need for ecosystem-based management.” *Id.* at 406. A number of writers have also indicated that a misconceived reading of Hardin’s “tragedy of the commons” has created inaccurate biases against “common property” (as *res communis* or *res publicae*, both regulated by the State), as distinct from “open access” (as *res nullius*, subject to anyone’s occupation and without a specific regime). See Robert Gorman, *Common Property and Natural Resource Management* (undated), available at <http://extension.usu.edu/WRDC/primer/Gorman.pdf> (last visited Mar. 8, 2004); see also The Environmental & Natural Resources Policy & Training Project, *Resource Management Regimes for the Commons* (1995), available at <http://www.wisc.edu/epat/resprice/global/format/res-mgmt.html> (last visited Nov. 30, 2003).

⁷⁹ Framework Agreement for the Conservation of the Fishery Resources of the South West Pacific High Seas (Galapagos Agreement), adopted by Chile, Colombia,

there are “entitlements” of a property or quasi-property nature at stake, and both camps advocate that their side has the better “right” on the basis of proximity, or historic rights accrued. As indicated earlier, proposals for a WOPT have not been formulated as a “privatization” of high seas resources, but rather as a mechanism for the effective custody and stewardship of those areas and the marine life found therein.

It is legally feasible and politically plausible that, with time, the consensus of the international public could be harnessed in favor of the establishment of a global high seas fisheries organization whose mandate would not be based on a property rights approach to marine life. The incomplete but growing record of compliance by States with the 1986 moratorium on whaling,⁸⁰ and the 1989 moratorium on driftnets,⁸¹ for example, demonstrates the possibility of this approach. These efforts are not fully effective, however, and time, as outlined earlier, is running out for many species and habitats.

B. DUTY TO CONSERVE MARINE LIVING RESOURCES UNDER UNCLOS

By 1700, it was widely recognized that fisheries resources were exhaustible and nations pressed for exclusive fishery limits. These, as outlined, became fixed at three nautical miles (“nm”) from the coastline. During the Nineteenth Century, attempts to extend jurisdiction for fisheries conservation purposes beyond the territorial sea failed.⁸² The 1958 Geneva Con-

Ecuador and Peru on Aug. 14, 2000. The U.S. and the E.U. consider the Agreement incompatible with the UNFSA. *See also* Juda, *infra* note 133, at 126.

⁸⁰ *See infra* note 126.

⁸¹ *See* Linda Paul, *International Law Governing Driftnet Fishing on the High Seas*, in *HIGH SEAS DRIFTNET FISHING: THE PLUNDER OF THE GLOBAL COMMONS* (1994), available at <http://www.earthtrust.org/dnpaper/intllaw.html> (last visited Nov. 14, 2003). In spite of the ban, around 300,000 whales, dolphins and porpoises “die each year when they become entangled in nets designed to catch fish, the World Wildlife Fund (WWF) said.” Reuters, *Fish Nets Threaten Whale Species, WWF Seeks Action*, (June 16, 2003) available at <http://www.planetark.org/dailynewsstory.cfm/newsid/21191/newsDate/16-Jun-2003/story> (last visited Mar. 8, 2004).

⁸² In the Channel Oyster Fishing Controversy (1819), the British Government “saw no excuse for admitting a deviation from the general rule that the sea beyond a distance of one league from the coast is free to all fishing nations.” O’CONNELL, *supra* note 40, at 515. The Bering Sea Fur Seals Arbitration (1892) is cited as an example of growing awareness of the need for conservation, as the U.S. sought to protect fur seals to a distance of more than 60 miles from shore. *Id.* at 522.

ference also failed to garner support for the principle of abstention from fishing by States, which had not fished a particularly vulnerable stock for a certain period of time, and only in regard of that stock.⁸³ Similarly, the 1958 Geneva Convention on Fishing and Conservation of the Living Resources of the High Seas, established conservation measures, but did not receive the support of major fishing nations and “proved largely to be a dead letter.”⁸⁴ In a landmark case in 1974, however, the International Court of Justice, upholding Article 2 of the 1958 Geneva Convention on the High Seas in the context of high seas fishing, recognized that the freedoms of the high seas must be exercised “with reasonable regard to the interests of other States in their exercise of the freedom of the high seas.”⁸⁵ The finding validated the concept of extended fishery zones that would culminate in the extension of territorial sea limits to 12 nm and the adoption of the 200 nm EEZ concept in the 1982 UNCLOS. The *Fisheries Jurisdiction Case (U.K. v. Iceland; Germany v. Iceland)* established that “fishing was not an absolute right.”⁸⁶

The majority of rights vested on coastal and fishing nations under UNCLOS have crystallized as norms of customary international law. The majority of duties, however, have not.⁸⁷ Since World War II, fishing fleets around the world have grown to overcapacity through multinational financing from banks and government subsidies,⁸⁸ but customary international law duties regarding marine resources conservation have lagged behind and are precarious because they consist of two main

⁸³ During the late 19th and early 20th century, the need for conservation was discussed at many international fora. *Id.* at 524 *et seq.*

⁸⁴ R.R. CHURCHILL & A.V. LOWE, *THE LAW OF THE SEA* 287 (1999 ed.).

⁸⁵ *Fisheries Jurisdiction Case (U. K. v. Ice.)* 1974 I.C.J. 3 (Feb. 2); *Fisheries Jurisdiction Case (F.R.G. v. Ice.)* 1974 I.C.J. Rep. 175 (Feb. 2).

⁸⁶ O'CONNELL, *supra* note 39, at 539.

⁸⁷ Richard J. McLaughlin, *Foreign Access to Shared Marine Genetic Materials: Management Options for a Quasi-Fugacious Resource*, 34 OCEAN DEV. & INT'L L. 297 (2003).

⁸⁸ Hedley, *supra* note 1. See also *Oceans and the Law of the Sea: Report of the Secretary-General*, U.N.G.A. Doc. A/57/57 (2002); See also Andy Thorpe, Alonso Aguilar Ibarra and Chris Reid, *The New Economic Model and Fisheries Development in Latin America* (1999)(Conference on Marine Environmental Politics in the 21st Century), available at <http://globetrotter.berkeley.edu/macarthur/marine/papers/steinberg-6.html> (last visited Mar. 10, 2004).

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ones: a duty to consult,⁸⁹ and a duty to cooperate.⁹⁰ The effectiveness of these duties is limited because under customary

⁸⁹ The duty to consult is premised on Principle 21 of the Stockholm Declaration, or The Declaration of the United Nations Conference on the Human Environment, U.N. Doc.A/CONF.48/14 (June 16, 1972), 11 I.L.M. 1416 (1972). It provides: "States have, in accordance with the Charter of the United Nations and the principle of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." The principle restates the maxim "*sic utere tuo, ut alienum non laedas*," (use what is yours so as not to harm what is others), as formulated in the Trail Smelter Arbitration (U.S. v. Can.) (1938-1941) 3 R.I.A.A. 1905. The duty to consult may not be not restricted to situations where physical harm or damage could result to natural resources, because the principle flowing from the Fisheries Jurisdiction Case would extend the duty to include the risk of causing harm or disruption to the economic interests of another State over natural resources, as for example established economic dependence on fishing grounds. See FREDERICK L. KIRGIS, *PRIOR CONSULTATION IN INTERNATIONAL LAW: A STUDY OF STATE PRACTICE* (1983). In this light, the duty can cut both ways, favorably to conservation *and* to fishing interests. McLaughlin, *supra* note 88, at 313 (quoting Kirgis). Article 3 of the 1974 Charter of Economic Rights and Duties of States "seems clearly to reflect the normative expectations of the great majority of U.N. members," though it cannot be considered to form part of customary international law because it was adopted as a United Nations General Assembly resolution that did not convey universal acceptance, as it conveyed 99 votes in favor, 8 against, and 29 abstentions. Article 3 provides: "In the exploration of natural resources shared by two or more countries, each State must cooperate on the basis of a system of information and prior consultation in order to achieve optimum use of such resources without causing damage to the legitimate interests of others."

⁹⁰ The duty to cooperate may involve a range of actions. It may require a duty to negotiate with a view to seeking an agreement. International law refers to this duty as *pacta de contrahendo*/*pacta de negotiando* (agreements to agree and agreements to negotiate). The obligation may arise from a treaty. Whether the parties are legally bound by the treaty to conclude a further agreement on a specific point depends on an interpretation of the words used in the treaty. Vague or indeterminate language reflects a political, rather than a legal, obligation to negotiate. The use of clear and specific language indicating legal obligation may create certain procedural obligations concerning a subsequent agreement, to be fulfilled immediately, or at a later date. *Pacta de contrahendo*/*de negotiando* are mechanisms for the postponement of a definitive substantive agreement and for the negotiation of agreements, which may or may not eventuate. See A. Miaja de la Muela, *Pacta de Contrahendo en Derecho Internacional Publico* 21 REVISTA ESPANOLA DE DERECHO INTERNACIONAL 392 (1968); Ulrike Beyerlin, *Pactum de Contrahendo, Pactum de Negociando* 11 ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW 371. Writers differ about the legal obligations arising from each *pactum*. In a *pactum de negotiando* the obligation is to negotiate in good faith with a view to concluding an agreement, whereas in a *pactum de contrahendo* the obligation may be more extensive and may require the parties to reach an actual permanent agreement. The judicial elaboration of *pacta* has indicated specific duties for the parties. Tacna Arica Arbitration (Chile v. Peru) (1925) 2 R.I.A.A. 921; Railway Traffic Between Lithuania and Poland (1931) P.C.I.J. (ser. A/B) No. 42, at 116; Lake Lanoux Arbitration (Spain v. France) 24 I.L.R. 101 (1957) (Award 123); German External Debts Arbitration, 47 I.L.R. 418 (1974). The parties are under a duty to negotiate specific details (terms, time, manner of negotiation, etc.), to relinquish previous positions in order to reach agreement, to give meaning to the negotiations by seeking an actual

international law there is no duty for States to reach a binding agreement to cooperate.⁹¹ Moreover, conservation disputes arising from the exercise by coastal States of sovereign rights relating to the living resources of the EEZ are not subject to compulsory settlement of dispute mechanisms under UNCLOS.⁹²

A more positive view on the binding nature of the customary international law duties to consult and cooperate suggests that there is an independent duty that requires States to consult, negotiate at the highest level, and to seek binding and non-binding resolution to their disputes relating to marine living resources.⁹³ In addition to these duties, States must not engage in activities that would constitute an “abuse of right” under UNCLOS.⁹⁴ States must enforce UNCLOS duties upon their citizens and upon vessels flying their flag.⁹⁵

UNCLOS is not the only conventional regime that applies to the living resources of the high seas or to the duties of coastal and fishing States in areas under sovereign rights and jurisdiction. UNCLOS, however, is considered the “constitution of the oceans,” even though it is not satisfactory from a conservation point of view because it discarded the possibility of a global fisheries organization, and many of the most important provisions on fisheries conservation were left deliberately

agreement, and to conduct themselves in a manner that indicates good faith. The latter can be assessed through objective criteria, by examining the summary of the negotiations, including diplomatic exchanges, formal conference negotiations, exchange of notes disclosing each party's views and direct negotiations through foreign ministers. Good faith can also be evaluated by examining whether the parties have regard for the procedures, show a willingness to consider promptly adverse proposals or interests, and are diligent in the negotiations. Bad faith may not be presumed, but will need to be proved by the party alleging it and be based on unjustifiably breaking off negotiations, abnormal delays, disregard for agreed procedures or systematic refusal to take into consideration adverse proposals or interests. Conduct characterized by proven bad faith allows the other party to claim discharge from the obligation to negotiate and may also give rise to a right to compensation. In a *pactum de negotiando*, however, there is no obligation to agree to unfavorable conditions. See Montserrat Gorina-Ysern, *OAS Mediates in Belize-Guatemala Border Dispute* (Sept. 2000), available at <http://www.asil.org/insights/insigh59.htm> (last visited Mar. 10, 2004).

⁹¹ Montserrat Gorina-Ysern, *op. cit.*, *supra* note 89.

⁹² UNCLOS art. 297(3)(a).

⁹³ McLaughlin, *supra* note 87, at 315 (referring to John Van Dyke).

⁹⁴ *Id.* UNCLOS art. 300 provides: “States Parties shall fulfill in good faith the obligations assumed under this Convention and shall exercise the rights, jurisdiction and freedoms recognized . . . in a manner which would not constitute an abuse of right.”

⁹⁵ D’AMATO, *supra* note 35, at 341 *et seq.* (arguing that many of these duties can be considered to form part of customary international law).

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vague to account for the interests of DWFNs.⁹⁶ Prior to and since the entry into force of UNCLOS in 1994, there have been some 150 bilateral agreements among States dealing with marine living resources, and many multilateral cooperative agreements and arrangements, some of which will be discussed in the next section.

Under UNCLOS, coastal States enjoy sovereignty over the territorial sea extending twelve nm from the coastline, and its resources, subject to the right of innocent passage of other States, and "other rules of international law."⁹⁷ The growing interest in marine biotechnology has led writers to question whether UNCLOS and the CBD require States to engage in more than a mere duty of consultation with adjacent States with regard to the exploitation of territorial sea resources located in coral reefs and shallow waters, when exploitation of these resources may erode their conservation and sustainable development.⁹⁸ In the continental shelf, coastal States enjoy sovereign rights "for the purpose of exploring it and exploiting its natural resources," including exclusive rights to sedentary species.⁹⁹ The term "conservation" is not used throughout Part VI, UNCLOS, dealing with the continental shelf, either with regard to coastal State or foreign State duties. The freedom of all States to lay submarine cables and pipelines on the continental shelf of another State seems to indicate that the interests of the submarine cable and pipeline industries prevailed

⁹⁶ For a critical view of UNCLOS see Bernd Rüster, *Fisheries, International Regulation*, 11 *ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW* 109, 109-117, referring in particular to UNCLOS, arts. 63(2), 64 and 116(b); Rosemary Rayfuse, *Canada and Regional Fisheries Organizations: Implementing the U.N. Fish Stocks Agreement*, 34 *OCEAN DEV. & INT'L L.* 209, 209-228 (2003).

⁹⁷ UNCLOS, art. 2. The rights of innocent passage is recognized in art. 17.

⁹⁸ See McLaughlin, *supra* note 88, at 309. McLaughlin argues that "the vast majority of marine genetic resources with commercial potential are located in shallow waters and reefs within the territorial sea of source nations." *Id.* He laments that nothing in UNCLOS or in the CBD requires States to cooperate in the conservation of these resources so as to prevent the destruction of the habitats where they are located. *Id.* See also David Farrier & Linda Tucker, *Access to Marine Bioresources: Hitching the Conservation Cart to the Bioprospecting Horse*, 32 *OCEAN DEV. & INT'L L.* 213, 213-239 (2001) (anticipating a coastal State rush to destroy vulnerable habitats through the sale to the highest bidder of flora and fauna sought by the biotech industry for its biogenetic properties and future commercial benefits).

⁹⁹ UNCLOS, arts. 77(1) and (4). Sedentary species have been removed from the regime of the EEZ, art.68.

over any conservation interests favorable to the coastal State.¹⁰⁰ It has been noted, however, that the general duty to protect and preserve the marine environment under Part XII is not qualified as to where it applies. Whether general obligations relating to pollution may apply to the conservation of territorial sea, continental shelf or EEZ living resources is open to debate.¹⁰¹ However, Article 194(5) clearly spells out that “[t]he measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitats of depleted, threatened or endangered species and other forms of marine life.”

In the EEZ, coastal States have sovereign rights “for the purpose of exploring, exploiting, conserving and managing the natural resources” of the EEZ, and for the purpose of determining the allowable catch by domestic and foreign fleets therein.¹⁰² But coastal States “shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of [the] Convention.”¹⁰³ To this effect, coastal States “shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation.”¹⁰⁴ There is an uneasy balance between coastal States’ right to achieve optimum utilization of EEZ living resources, and the duty to maintain and restore populations “at levels which can produce the maximum sustainable yield.”¹⁰⁵

¹⁰⁰ Within the 200 nm continental shelf boundary, a coastal State cannot impede the laying of submarine cables and pipelines (SCP) by another State (UNCLOS, art. 79; 1958 Geneva Convention on the Continental Shelf, art. 4). The coastal State, however, can place conditions to protect (1) its sovereign rights to explore and exploit its territorial sea and continental shelf natural resources if the new SCP would affect those areas and the rights therein (UNCLOS, art. 79.4; 1958 Geneva Convention on the High Seas (HSC), art. 26.2). The coastal State may also place conditions for the prevention of pollution from SCP. Coastal State consent must be obtained regarding the delineation of the course of pipelines, but not regarding the delineation of the course of submarine cables (UNCLOS, art. 79.3). Whereas any State intending to lay SCP on the continental shelf must protect archaeological and historical objects found at sea, such as shipwrecks (UNCLOS, art. 303 and other rules of international law), no reference is made to conserving sedentary species.

¹⁰¹ UNCLOS, art. 192 provides that “States have the obligation to protect and preserve the marine environment.” Since UNCLOS does not define “environment” or “resources” it is open to debate whether the one is included or not in the other.

¹⁰² *Id.*, arts. 56(1)(a) and 61(a).

¹⁰³ *Id.*, art. 56(2).

¹⁰⁴ *Id.*, art. 61(2).

¹⁰⁵ *Id.*, arts. 61(2) and (3).

Overarching these provisions, however, the duty to cooperate in preventing over-exploitation is clearly established.¹⁰⁶ Similar duties of cooperation apply to island States and States bordering enclosed or semi-enclosed seas.¹⁰⁷

Under UNCLOS, marine species are grouped into straddling stocks (i.e. stocks or associated species occurring within the EEZs of two or more nations or both within the EEZ and in areas beyond and adjacent to it), highly migratory species (that include seventeen listed varieties of species),¹⁰⁸ marine mammals,¹⁰⁹ anadromous stocks (those spawning in the fresh waters of rivers),¹¹⁰ and catadromous species (those spawning at sea, but spending most of their lives in fresh water).¹¹¹ The effective assessment, management, conservation and enforcement of rules governing marine species require domestic as well as international, regional and bilateral approaches. All States, irrespective of their geographical location, are obligated to cooperate in the protection and conservation of these stocks. The specific duty of coastal States and fishing States, however, to cooperate among themselves with regard to stocks occurring within the EEZ of two or more coastal States, or both within and beyond the EEZ, is couched in vague and indeterminate language ("shall seek . . . to agree"), providing for a duty to consult and negotiate, but without a binding obligation to reach a cooperative agreement.¹¹² States have tended to reserve the right to make decisions on catch allocation, foreign access, and most important, enforcement of these provisions.¹¹³

¹⁰⁶ *Id.*, art. 61(2). Article 61(5) obligates coastal States to contribute on a regular basis and to exchange, through competent international organizations, available scientific information on catch, fishing effort statistics, and other relevant data concerning the conservation of fish stocks, with participation by nationals of other States allowed to fish in the EEZ, especially when the latter have engaged in "substantial efforts in research and identification of stocks," art. 62(3). Rüster, *supra* note 97, suggests that references to "maximum sustainable yield" in Part VII, art. 119, should be read to mean "optimum yield."

¹⁰⁷ UNCLOS, art. 123.

¹⁰⁸ *Id.*, art. 63, including various families of tunas, mackerels, pomfrets, marlins, sail fishes, swordfish, sauries, dolphin, oceanic sharks and some families of cetaceans.

¹⁰⁹ *Id.*, art. 64. Coastal States may adopt regulations with regards to marine mammals more restrictive than those required by the International Whaling Commission and other competent international organizations in this field.

¹¹⁰ *Id.*, art. 66, including salmon, shad and sturgeon.

¹¹¹ *Id.*, art. 67.

¹¹² *Id.*, art. 63.

¹¹³ McLaughlin, *supra* note 87, at 310.

UNCLOS recognizes the right of all States to engage in fishing on the high seas.¹¹⁴ This right is subject to restrictions, including existing treaty obligations among States, the rights, duties and interests of coastal States over straddling stocks, highly migratory species, and catadromous stocks, and the conservation obligations provided for in Part VII,¹¹⁵ And the environmental obligations of Part XII (especially Arts. 192 and 194.5). UNCLOS requires all States to cooperate in the conservation of high seas resources,¹¹⁶ and to enter into negotiations with other States exploiting identical living resources or different resources in the same location.¹¹⁷ Regional or subregional conservation measures shall be based on the “best scientific evidence available,” including information on catch, fishing effort statistics, and other relevant data. Information shall be contributed and exchanged on a regular basis through competent international organizations.¹¹⁸ D’Amato argues that, although UNCLOS Article 117 requires States to adopt conservation decisions on the basis of the best scientific evidence available, the 1989 U.N. Driftnet Moratorium has reversed the burden of proof on the need to adopt measures on the basis of the best scientific evidence available, as conservation measures can be taken without conclusive proof.¹¹⁹

Vessels not authorized to fish in the EEZ can be boarded, inspected, arrested and subject to judicial proceedings.¹²⁰ The

¹¹⁴ UNCLOS, art. 87.

¹¹⁵ *Id.*, art. 116.

¹¹⁶ *Id.*, art. 117, providing that “[a]ll States have the duty to take, or to co-operate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.”

¹¹⁷ *Id.*, art. 118.

¹¹⁸ *Id.*, art. 119.1(a), 2.

¹¹⁹ D’AMATO, *supra* note 35, at 339-40, referring to UNCLOS, arts. 61(2), 119. For a study of the implementation of the moratorium see Paul, *supra* note 82.

¹²⁰ The most recent international proceedings involved the “Volga” Case before the International Tribunal for the Law of the Sea. The “Volga” Case, Application for Prompt Release (Russ, Fed, v. Austl.) No. 11 (Dec. 23, 2002), available online at http://www.itlos.org/start2_en.html (last visited Mar. 11, 2004). Although the international media refers to ships engaged in illegal fishing without a license as “pirates,” the laws of piracy have no bearing on such activities. Recent media reports have focused on illegal trawling for Patagonian Toothfish, a highly endangered species in the Southern Ocean. See *Net Closing on Toothfish “Pirates”* (BBC news broadcast Aug. 22, 2003) (involving the “Viarsa”, spotted by the Australian fisheries enforcement patrol ship Southern Supporter inside Australia’s fishing zone); *Toothfish “Pirates” Held After Chase* (BBC news broadcast Aug. 28, 2003) (reporting that Australian, South African and British fisheries officers had cooperated in the boarding of the Uruguayan-

coastal State, however, is under a duty to release the foreign vessels and crew promptly upon the posting of a “reasonable bond” or security.¹²¹ By contrast, on the high seas beyond the limits of national jurisdiction, a warship or a government vessel is not justified in boarding another vessel flying a foreign flag, unless such boarding and search are conducted under a specific agreement authorizing the exercise of jurisdiction.¹²² There is no right of boarding for fisheries offenses committed on the high seas, beyond the limits of national jurisdiction, by ships not belonging to the same State, unless such rights of interference have been conferred by treaty.

The effective control, monitoring, surveillance and enforcement of fisheries conservation provisions depends on the extent of cooperation among coastal State, port State and flag State authorities. Fisheries offenses originate and conclude at national ports, when the coastal States (for domestic fleets) or the port States (for landing and transshipment of catch) do not implement their duties under UNCLOS effectively. The use of flags of convenience to avoid stringent domestic regulations over EEZ and high seas fishing operations has exacerbated the causes associated with overexploitation of fisheries resources on the high seas. In the “*Volga*” Case, the majority of judges of the International Tribunal for the Law of the Sea (hereinafter

registered “Viarsa,” whose crew face jail sentences and heavy fines). The laws of “hot pursuit” pursuant to UNCLOS, art. 73 and 111 regulate such boardings.

¹²¹ UNCLOS, art. 73, art. 292.

¹²² *Id.*, art 94(1) (providing that “[e]very State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag,” and 94(6), providing that “[a] State which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag State. Upon receiving such a report, the flag State shall investigate the matter and, if appropriate, take any action necessary to remedy the situation.” Pursuant to UNCLOS, art. 110, there is a right of visit by warships on the high seas, but it is limited to investigation with respect to offenses arising from piracy, slave trade, unauthorized broadcasting, stateless vessels, and vessels suspected of having the same nationality of the warship though flying another flag. A warship can verify another vessel’s flag. DEPARTMENT OF THE NAVY, THE COMMANDER’S HANDBOOK ON THE LAW OF NAVAL OPERATIONS, NWP1-14 § 3.4. (Oct. 1995). Provides “[a]s a general principle, vessels in international waters are immune from the jurisdiction of any nation other than the flag nation. Under international law, however, a warship, military aircraft, or other duly authorized ship or aircraft may *approach* any vessel in international waters to verify its nationality. Unless the vessel encountered is itself a warship or government vessel of another nation, it may be stopped, boarded, and the ship’s documents examined, provided there is reasonable ground for suspecting that it is” engaged in the activities described above under UNCLOS, art. 110. These provisions are to be considered part of customary international law.

“ITLOS”) adopted a very restrictive reading of UNCLOS Article 73 that prevented the development of a judicial precedent requiring delinquent vessels to be equipped with Vessel Monitoring System (hereinafter “VMSs”) devices. These devices would have helped Australian law enforcement authorities to protect Patagonian Toothfish in the EEZ, and possibly in large areas of the Southern Ocean closed to fishing under the Convention on the Conservation of Antarctic Living Resources (hereinafter “CCAMLR”).¹²³

IV. REGIONAL AND INTERNATIONAL FISHERIES REGIMES

Over the past century, States have adopted a number of treaties of a regional, subregional, and global scope for the purpose of conserving, protecting, and managing marine species.¹²⁴ This section provides a selective review of regional and international fisheries regimes and discusses binding and non-binding soft law instruments regulating high seas fisheries.

A. GLOBAL REGIMES

As outlined, the 1982 UNCLOS requires States to ensure that EEZ living resources are not endangered by overexploitation. States must cooperate with other States engaged in the capture of straddling stocks, highly migratory stocks, anadromous species, and marine mammals.¹²⁵ States fishing on the

¹²³ See *infra* Section III.C. Seven of the eleven cases decided by the ITLOS to date have involved illegal fishing and prompt release of vessels and crews upon posting of bonds. See *M/V Saiga* (Cases Nos. 1 and 2, Saint Vincent and the Grenadines v. Guinea), the *Camouco* (Case No. 5 Panama v. Fr.), the *Monte Confurco* (Case No. 6, Sey. v. Fr.), the *Grand Prince* (Case No. 8, Belize v. Fr.), the *Chaisiri Reefer 2* (Case No. 9, Panama v. Yemen). See also Dean Bialek, *Sink or Swim: Measures Under International Law for the Conservation of the Patagonian Toothfish in the Southern Ocean*, 34(2) OCEAN DEV. & INT'L L. 105, 105-137 (2003).

¹²⁴ See CITES, the 1999 Agreement on the International Dolphin Conservation Program, the 2001 Agreement on the Conservation of Albatrosses and Petrels (not yet in force).

¹²⁵ UNCLOS, arts. 61-66. The 1948 International Whaling Commission is not a fishery body, but it has a global scope. At its June 2003 annual meeting, the International Whaling Commission (IWC) extended a moratorium on commercial whaling, continued to ban commercial whaling within marine sanctuaries, restricted Japan's lethal scientific/research on whales, and disallowed international trade in whale products. It also continued its scientific work on the protracted Revised Management Scheme (RMS), should the moratorium on whaling be lifted in the future. The IWC is a highly divided body and the recent voting patterns reflect this reality. Whaling na-

high seas are under a duty to enter into negotiations for conservation purposes.¹²⁶ UNCLOS calls for the establishment of subregional, regional and global cooperation through international organizations. In addition to these duties to cooperate, the momentum generated by the 1992 Convention on Biological Diversity and the Jakarta Mandate,¹²⁷ the 1992 Cancun Conference on Responsible Fishing, and the 1992 United Nations Conference on Environment and Development (hereinafter "UNCED"), through its Chapter 17, Agenda 21,¹²⁸ have led to the adoption of two important but poorly ratified legal instruments: the 1995 UNFSA¹²⁹ and the FAO Compliance Agree-

tions refuse to compromise on the science-based and enforceable RMS proposals sponsored by the U.S. and others. The U.S. supports the non-whaling nations' positions at the IWC meetings, and also supports aboriginal subsistence whaling. Proposals by Australia, New Zealand and Brazil to establish science-based South Pacific and South Atlantic whale sanctuaries for the recovery of depleted whale stocks failed to reach the required 2/3 majority of votes. Mexico's proposal, however, to create a Conservation Committee within the IWC was adopted. The U.S. supported all of these proposals. The U.S. opposes lethal research whaling conducted by Japan (with a take of around 650 whales per year for several species), and plans by Iceland to resume whaling (with a take of 250 in the next two years). A proposal by Japan for community-based commercial whaling was voted down by the IWC. The U.S. also opposes Norway's resumption (after 14 years) of international trade in minke whale products to Iceland (estimated at 38,000 kilograms), and possibly further exports to the Faroe Islands and Japan. International Convention for the Regulation of Whaling, 1946, T.I.A.S. No. 1849, establishing the International Whaling Commission, and Protocol, 1956, T.I.A.S. No. 4228. See also International Whaling Commission, *55th Annual Meeting* (2003), available at <http://www.iwcoffice.org/FinalPressRelease2003.htm> (last visited Mar. 8, 2004).

¹²⁶ UNCLOS, art. 118.

¹²⁷ The Conference of the Parties to the CBD met in Jakarta, Indonesia, in 1995 and adopted a plan of action for marine and coastal biodiversity (the Jakarta Mandate). It includes a plan for the establishment of MPAs. See <http://www.biodiv.org>.

¹²⁸ See *Final Act of the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks*, Introduction, point 3, U.N. Doc. A/CONF.164/38 (Sept. 7, 1995) (referring to Chapter 17, Agenda 21, and recalling the principle of sustainability of use and conservation of marine living resources of the high seas).

¹²⁹ The UNFSA consists of 50 Articles divided in XIII parts, with two Annexes. Part I deals with General Provisions. Part II (arts. 5-7) sets up the principles for the conservation and management of straddling and highly migratory fish stocks and related species. Part III (arts. 8-16) provides for mechanisms for international cooperation concerning those stocks through the cooperation of management organizations at the subregional or regional level. Part IV deals with the duties of non-member States and States not participating in subregional or regional fisheries management arrangements. Part V (art.18) deals with the duties of the flag State. Part VI provides for extensive compliance and enforcement measures (arts. 19-23). Part VII (arts. 24-26) sets out the requirements of developing States. Part VIII (art. 27-32) provides for settlement of dispute mechanisms. Part IX (art. 33) requires States Parties to seek non-parties to join the UNFSA. Part X restates the principle of good faith (art. 34). Part XI deals with responsibility and liability (art. 35). Part XII provides for a confer-

ment.¹³⁰ Both instruments, pursuing consistency with UNCLOS,¹³¹ address the growing concerns of the international community over some of the major problems facing the management of world fisheries: Illegal, Unreported, and Unregulated (hereinafter “IUU”) fishing, the reflagging of vessels by nations unwilling to abide by restrictions on the high seas freedom of fishing, the overcapacity of the world’s fishing fleet, and insufficient cooperation among States.¹³²

The new governance framework is premised on the principles of accountability,¹³³ participation,¹³⁴ predictability,¹³⁵ and transparency.¹³⁶ Governance is defined as “the framework of social and economic systems and legal and political structures

ence review to be called four years after the entry into force of the UNFSA (art. 36). Part XIII deals with final provisions (arts. 37-50). Annex I (arts. 1-7) provides for standard data requirements for the collection and sharing of fisheries data. Annex II provides guidelines for the application of precautionary reference points in conservation and management of straddling and highly migratory fish stocks. The conference was very well attended, but ratifications have been minimal.

¹³⁰ Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993, 33 I.L.M. 968 (1994), available at <http://www.fao.org/legal/treaties/012t-e.htm> (last visited Mar. 8, 2004). Entered into force in April 2003 after receiving 25 ratifications. The FAO Compliance Agreement comprises XVI articles and a Preamble. Article I provides definitions of terms. Article II provides that the FAO Compliance Agreement applies “to all fishing vessels that are used or intended for fishing on the high seas.” Article III deals with flag State responsibility. Article IV requires parties to keep records of fishing vessels. Article V restates the duty to cooperate. Article VI requires parties to supply FAO with considerable and detailed information about its fishing vessels. Article VII provides for cooperation with developing countries. Article VIII urges parties to encourage non-parties to accept the agreement. Article IX contains settlement of dispute mechanisms. Articles X-XVI deal with final provisions.

¹³¹ UNFSA, art. 4.

¹³² Lawrence Juda, *Rio Plus Ten: The Evolution of International Marine Fisheries Governance* 33 OCEAN DEV. & INT’L. L. 109, 109-144 (2002); see also David Balton, *State Department Official Describes Fisheries Legal Framework* (2003), available at <http://usembassy.state.gov/tokyo/wwwwh20030116b3.html> (last visited Mar. 8, 2004).

¹³³ Public officials must be answerable for government behavior and responsive to the entity from which they derive their authority,” in *Elements of Governance*, available at http://www.adb.org/Governance/gov_elements.asp (last visited Sept. 3, 2003).

¹³⁴ *Id.* Requiring involvement of citizens and stakeholders affected by decisions. *Id.*

¹³⁵ *Id.* Requiring a balance between the laws and regulations for the protection of the environment and the need for the country to develop economically, with well-defined rights and duties, mechanisms for their effective enforcement, impartial settlement of disputes, and predictability about the fairness and consistency of these laws and regulations by the government, the judiciary, and law enforcement agencies. *Id.*

¹³⁶ *Id.* Requiring access to relevant information by the general public as one factor in reducing corruption among public officials. *Id.*

through which humanity manages itself.”¹³⁷ Under the new governance framework, States are bound to conserve biodiversity,¹³⁸ adopt ecosystem-based management approaches and act with precaution “when information is uncertain, unreliable or inadequate” regarding measures for the conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks.¹³⁹

An important feature of the UNFSA is that it obligates non-member States and States not participating in subregional or regional fisheries management organizations to cooperate, pursuant to UNCLOS and the UNFSA, in the conservation and management of the relevant straddling fish stocks and highly migratory fish stocks.¹⁴⁰ A similarly novel feature of the FAO Compliance Agreement is that it “shall apply to *all fishing vessels* that are used or intended for fishing on the high seas”(emphasis added).¹⁴¹ The choice of language indicates that both instruments seek to apply to the distant water fishing fleets of parties as well as non-parties. It is too early to tell whether the UNFSA and the FAO Compliance Agreement will receive sufficient support from the relevant stakeholders to achieve the ambitious goals pursued. Among the major DWFNs (Japan, Spain, Poland, the Republic of Korea, Taiwan, and the People’s Republic of China), only the Russian Federation has ratified the UNFSA to date.

Soft-law instruments can play a considerable role in the conservation of marine life. The FAO Committee on Fisheries (COFI) has been instrumental for world fisheries conservation and management within the U.N. system. The FAO Code of Conduct for Responsible Fisheries (1995),¹⁴² together with

¹³⁷ Dena Marshall, *An Organization for the World Environment: Three Models and Analysis*, 15 GEO. INT’L ENVTL. L. REV. 79, 84 (2002)(quoting WORLD HUMANITY ACTION TRUST, GOVERNANCE FOR A SUSTAINABLE FUTURE 7 (2000)).

¹³⁸ See *infra* Section IV.

¹³⁹ UNFSA, art. 6(1 and 2).

¹⁴⁰ UNFSA art. 17.

¹⁴¹ FAO Compliance Agreement, art. II.

¹⁴² The purpose of the Code is to ensure the sustainability of humanity’s wellbeing. The Code contains 12 articles and 2 Annexes. Article 1 provides the nature and scope of the Code. Article 2 deals with its objectives. Article 3 deals with the Code’s relationship with other international instruments and, in particular, it restates its conformity with UNCLOS and its consistency with the UNFSA. Article 4 sets out rules for implementation, monitoring and updating. Article 5 provides special requirements for developing countries. Article 6 sets out general principles. Article 7 focuses on

FAO's International Plans of Action (hereinafter "IPOAs"),¹⁴³ are voluntary instruments that establish principles and standards for all the stakeholders involved. These soft-law instruments may serve as "the start of a long-term process of coming to terms with nature and the limits of natural systems."¹⁴⁴ Similarly, U.N. General Assembly Resolutions on Driftnet Fishing have served to reduce the incidence of by-catch of dolphins, sea turtles, birds, and other marine animals.¹⁴⁵

B. REGIONAL REGIMES

Regional Fisheries Management Organizations (RFMOs) are bodies charged with responsibility for the management of shared marine living resources. A number of these bodies have been set up pursuant to UNCLOS.¹⁴⁶ There are seven FAO fisheries bodies,¹⁴⁷ and over twenty-five non-FAO RFMOs.¹⁴⁸

fisheries management. Article 8 focuses on fishing operations. Article 9 is concerned with aquaculture development. Article 10 seeks to integrate fisheries and coastal area management. Article 11 deals with post-harvest practices and trade. Article 12 proposes means to conduct fisheries research. Annex 1 provides a background on the elaboration of the Code. Finally, Annex 2 includes a resolution.

¹⁴³ In 1999, the FAO adopted three IPOAs for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds), the IPOA for the Conservation and Management of Sharks (IPOA-Sharks), and the IPOA for the Management of Fishing Capacity (IPOA-Capacity). In 2001, the FAO adopted the IPOA to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU). These are non-binding instruments that address problems relating to the management of fishing capacity, the conservation and management of sharks, and the problem of seabird by-catch in longline fisheries, and the problems associated with reflagging of vessels and the use of flags of convenience.

¹⁴⁴ Juda, *supra* note 132, at 110.

¹⁴⁵ For a history of the adoption and implementation of U.N. General Assembly Resolution 46/215 (creating a moratorium on large-scale driftnet fishing on the high seas, effective January 1, 1992), see Paul, *supra* note 81.

¹⁴⁶ UNCLOS, arts. 117-120.

¹⁴⁷ The Asia-Pacific Fishery Commission (APFIC) (1948), the General Fisheries Council for the Mediterranean (GFCM) formerly General Fisheries Council for the Mediterranean has a new Scientific Advisory Committee charged with obtaining scientific advice for the management of Mediterranean fisheries. See <http://www.fao.org> (last visited Mar. 11, 2004). Progress Report on the Implementation of Conference Resolution 13/97 (Review of FAO Statutory Bodies) and the Strengthening of FAO, Regional Fishery Bodies, Committee on Fisheries, 23rd Sess., para.4, Doc. COFI/99/4 (Feb. 15-19, 1999) (Rome), the Fishery Commission for the Eastern Central Atlantic (CECAF), the Western Central Atlantic Fishery Commission (WECAFC), Western Central Atlantic Fishery Commission. The CARICOM Regional Fisheries Mechanism (CRFM) is a recently implemented initiative to consolidate and enhance regional cooperation initiated in 1991 under the CARICOM Fisheries Resources Assessment and the Management Program. In 2000, the parties to the Cartagena Convention adopted the

These agreements and arrangements share a similar organizational structure. With slight differences, they are organized around a council, commission or equivalent, a representative advisory body, an executive secretariat, and a scientific committee or panel. The latter carries out the scientific re-

Specially Protected Areas and Wildlife in the Wider Caribbean (SPAW) Protocol, the Indian Ocean Tuna Commission (IOCT). See Annex IV, at 126 U.N. Doc. 56/58 (regional fisheries management organizations and arrangements) available at <http://www.un.org>. The Committee for Inland Fisheries of Africa and the Indian Ocean Fishery Commission are also FAO fisheries bodies. Since 1997, FAO's fishery bodies have addressed internal means for the implementation of the Code of Conduct for Responsible Fisheries.

¹⁴⁸ Annex IV, *supra* note 147. Non-FAO fisheries bodies include the 1923 International Pacific Halibut Commission (IPHC), the 1949 International Whaling Commission, the 1950 Inter-American Tropical Tuna Commission (IATTC, concerned with the conservation and management of several species of Eastern Pacific tunas), the 1955 Great Lakes Fishery Commission, the 1969 International Commission for the Conservation of Atlantic Tunas (ICCAT), the 1979 North West Atlantic Fisheries Organization (NAFO, Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, Basic Instrument for the Northwest Atlantic Fisheries Organization, entered into force in 1979), the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Convention for the Conservation of Antarctic Marine Living Resources, 1982, T.I.A.S. No. 10240. In 1999, CCAMLR's 24 members adopted a Catch Documentation Scheme (CDS) to prevent illegal, and high volumes of harvested Patagonian Toothfish, known in U.S. markets as Chilean Sea Bass, and to monitor international trade in toothfish. Members must provide accurate stock assessment catch data on species distribution and its potential biomass. The U.S. has implemented the CDS and, since June 16, 2003, it has operated a pre-approval system for toothfish imports into the U.S. The CCAMLR Commission is implementing a list of fishing vessels known to have engaged in IUU fishing, and is also developing an internet-based document and tracking system to reduce IUU fishing, and to reduce fraud in reporting legal catches in the CCAMLR area), the 1983 North Atlantic Salmon Conservation Organization (NASCO), Convention for the Conservation of Salmon in the North Atlantic Ocean, Basic Instrument for the North Atlantic Salmon Conservation Organization, 1982, T.I.A.S. No. 10789, the 1993 North Pacific Anadromous Stocks Commission (NPASC, Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean, Basic Instrument for the North Pacific Anadromous Fish Commission, 1992. NPASC replaces the North Pacific Fisheries Commission), the 1994 Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea (PRCBS), the 1996 Inter-American Convention on the Protection and Conservation of Sea Turtles, the 2001 Western & Central Pacific Fisheries Commission (WCPFC), the 2001 Convention on the Conservation and Management of Fishery Resources in the South East Atlantic Ocean (not yet in force). In addition, there are the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Forum Fisheries Agency (FFA), the International Baltic Sea Fishery Commission (IBSFC), the International Council for the Exploration of the Sea (ICES), Le Comité Régional des Pêches du Golfe de Guinée (COREP), la Commission sous-régionale des pêches (CSR), the Joint Technical Commission for the Argentine/Uruguay Maritime Boundary (CTMFM), the North Atlantic Marine Mammal Commission (NAMMCO), the North Atlantic Marine Science Organization (PICES), the Pacific Salmon Commission (PSC), the South Pacific Permanent Commission (CPPS), the Pacific Community (SPC), the Latin American Organization for the Development of Fisheries (OLDEPESCA), and the Ministerial Conference on Fisheries Cooperation Among African States Bordering the Atlantic Ocean.

search decided by commissioners, through joint planning, coordination, and evaluation of results. Most of these agreements entail member States conducting their own fisheries research activities through domestic research fleets. Otherwise, the work is conducted aboard chartered vessels, ships of opportunity, or through the placement of observers on board any of the aforementioned ships, under domestic or foreign research vessel flags.¹⁴⁹ These bodies organize around periodic sessions, through bilateral commissions, or ad hoc meetings.¹⁵⁰ Some RFMOs are focused on high seas fisheries in a particular area,¹⁵¹ whereas others focus on particular species.¹⁵² This particular focus has left high seas areas of transboundary stocks and highly migratory species without a regime, or resulted in fragmented management of the whole.

Though the work of RFMOs has been considerable, they have not escaped criticism based on the following grounds: length of time spent in negotiating agreements, lack of adequate resources, scientific data and catch statistics, limited decision-making authority, minimal enforcement capability of nation States against vessels flying their flag, and against the

¹⁴⁹ See INTERNATIONAL FISHERIES DIVISION, OFFICE OF SUSTAINABLE FISHERIES, INTERNATIONAL AGREEMENTS CONCERNING LIVING MARINE RESOURCES OF INTEREST TO NOAA FISHERIES 1-124 (2001), available at <http://www.nmfs.noaa.gov/sfa/international>. See also INTERNATIONAL AGREEMENTS CONCERNING LIVING MARINE RESOURCES OF INTEREST TO NOAA FISHERIES (2003).

¹⁵⁰ *Id.*

¹⁵¹ NAFO, NEAFC, GFCM, CCAMLR, NPAFC.

¹⁵² Highly migratory species are the mandate of IATTC (IATTC focuses on the study of the biology of tunas and related species, including tuna-dolphin relationships, in the Eastern Pacific Ocean, pursuant to the Convention for the Establishment of an Inter-American Tropical Tuna Commission, 1949, T.I.A.S. No. 2044. The IATTC assesses the impact of fishing and other factors on species' abundance, and recommends conservation measures that afford maximum sustainable yield among member States. It collects and disseminates data on purse seine tuna fishing fleets, including catch and effort, and monitors the implementation its catch quotas and other recommendations. The 1995 Panama Declaration, implementing the Jolla Declaration for the protection of dolphins, resulted in the 1998 Agreement on the International Dolphin Conservation Program (IDCP). The IDCP involves extensive fisheries research cooperation and information exchange through observer and research programs on existing fishing gear and techniques. At the end of June 2003, IATTC adopted a new convention to minimize the bycatch of sea turtles in longline fisheries; they are also the mandate of FFA, FAO'S IOTC, CCSBFT, ICCAT (coordinates the international management of tunas and tuna-like species, and adopts mechanisms to combat IUU fishing of these species, 1982, T.I.A.S. No. 10240. Some management plans implemented by the 35 ICCAT member nations have succeeded in rebuilding biomass for depleted stocks of swordfish and marlins). Anadromous Stocks are the mandate of NASCO and NPAFC.

illegal actions by nationals of States not members or not participating, non compliance by members with all the requirements, restrictive and reactive, rather than pro-active, approaches to management, and the inclusion of “opt-out” clauses allowing members to pick and choose what regulations suit their interests.¹⁵³ In certain regions, as Churchill & Lowe point out, “the picture is rather bleak.”¹⁵⁴

In spite of these criticisms, RFMOs have put considerable pressure on States to curtail unrestricted fishing in high seas areas close to, or beyond, the outer limits of the EEZ in some regional areas. RFMO regulation has therefore restricted the freedom of fishing in certain high seas areas where States have adopted a range of voluntary and mandatory measures to protect fish stocks. These measures result in a type of “enclosure” that is similar to the one espoused by Orbach and the DOE conference for the remainder of high seas fisheries. The measures adopted by RFMOs include, but are not restricted to, the following:

- a) Closures of large areas of high seas beyond the limits of national jurisdiction;
- b) Compulsory registration of fishing vessels engaged in high seas fisheries;
- c) Good standing status for vessels abiding by fishing restrictions;
- d) Annual reporting requirements by member States;
- e) Catch limits and quotas (set and/or reduced harvest limits and levels);
- f) Quota sharing arrangements;
- g) Reporting requirements for trade by exporters of frozen stocks;

¹⁵³ Juda, *supra* note 132. CHURCHILL & LOWE, *supra* note 84.

¹⁵⁴ CHURCHILL & LOWE, *supra* note 84, at 321.

- h) Protection of juveniles;
- i) Minimizing dead discards;
- j) Prohibition of fishing in spawning areas;
- k) Research on gear, equipment and fishing techniques;
- l) Scientific research and tagging programs;
- m) Limits on and evaluations of fishing capacity;
- n) Prohibition against retention of landing and sale in domestic/foreign markets;
- o) Monitoring and sightings;
- p) Trade sanctions.¹⁵⁵

Several RFMOs are applying the precautionary approach or considering its application.¹⁵⁶ As Juda observes, “[t]hese bodies are and will be buffeted by two interrelated developments: the pressures associated with the need to manage fish stocks that are increasingly recognized as being overexploited, and the need to consider stock sustainability in the context of ecosystem paradigms.”¹⁵⁷ Real time monitoring, boardings, inspections and transshipment are being considered and implemented by some RFMOs.¹⁵⁸ Stringent enforcement applied by

¹⁵⁵ See *United States – Import Prohibition of Certain Shrimp and Shrimp Products: Report of the Appellate Body*, WT/DS58/AB/R (adopted Oct. 12, 1998). In 1997, India, Malaysia, Pakistan and Thailand raised a joint complaint against the U.S. for imposing an import ban, pursuant to section 609 of the Endangered Species Act of 1973 (ESA), on certain shrimp and shrimp products harvested by these nations. The U.S. applied the import ban because the harvesting practices of these nations resulted in considerable sea turtle bycatch, prohibited under U.S. law. The Appellate Body of the WTO ruled that “although the measure of the United States in dispute in this appeal serves an environmental objective that is recognized as legitimate under paragraph (g) of Article XX of the GATT 1994, this measure has been applied by the United States in a manner which constitutes arbitrary and unjustifiable discrimination between Members of the WTO, contrary to the requirements of the chapeau of Article XX” (at para. 186). The WTO Appellate Body considered that section 609 of the ESA could not force the shrimp fleets of other nations to use turtle excluder devices.

¹⁵⁶ IBSFC, NAFO, ICES, NASCO, Barents Sea, Loophole Agreement, and WCPFC.

¹⁵⁷ Juda, *supra* note 132, at 123.

¹⁵⁸ *Id.* Behring Sea Donut Hole, CCAMLR.

the U.S., Canada, Russian Federation, and China under the UNSFA in the North Atlantic and the North Pacific, has resulted in a considerable decrease in illegal fishing in the region.¹⁵⁹

Greater port State enforcement relating to IUU is also being considered by RFMOs.¹⁶⁰ In spite of protracted negotiations, and the risk that major DWFNs would not join, the 2000 Western and Central Pacific Fisheries Commission (WCPFC) refused to include an “opt out” clause in its final agreement.¹⁶¹ Under the Western Central Pacific Ocean Tuna Convention (hereinafter “WCPO”), vessels cannot obtain a license to fish in the EEZ of Pacific Island States or in the WCPO region, unless such vessels are in “good standing” with the FFA, which administers the WCPO Tuna Treaty and keeps a regional register of vessels. To obtain a fishing license to operate in the FFA region, a vessel must be fitted with a VMS. The VMS is compulsory and aims to facilitate existing monitoring, surveillance and enforcement measures implemented by Australia, New Zealand and France.¹⁶²

¹⁵⁹ Commander John Davis, Chief, Fisheries Enforcement Division, U.S. Coast Guard, *How International Enforcement Cooperation Deters Illegal Fishing in the North Pacific*, 8 AN ELECTRONIC JOURNAL OF THE U.S. DEPARTMENT OF STATE, no. 1 (2003), available at <http://usinfo.state.gov/journals/ites/0103/ijee/davis.htm> (last visited Oct. 24, 2003), referring to surveillance of IUU driftnet fishing in the NPAFC area, the only one with “enforcement agency interoperability” with Canadian CP-140 aircraft, USCG C-130 aircraft, the U.S. National Marine Fisheries Service, China’s ancillary enforcement support through a 1993 MOU that involves boardings and seizures, and Russian Federal Border Service vessels joining in the task force. The 1998 record-high of 24, known, illegal vessels (4 seized), declined to 10 (3 seized) in 1999, to 1 vessel sighted in 2001, and to none in 2002, though the Russian Federal Border Service interdicted one vessel suspected of IUU fishing inside Russia’s EEZ. Over the 5 year period, the vessels engaged in illegal driftnetting and subsequently seized flew the flags of Russia, China, and Honduras. For an excellent update see Rayfuse, *supra* note 97.

¹⁶⁰ SEAFO (Convention on the Conservation and Management of Fishery Resources in the Southeast Atlantic Ocean 2001, formerly set up in 1969, terminated in 1990 and renegotiated as a new body), Barents and Behring Seas, ICCAT, CCAMLR.

¹⁶¹ Laurence Cordonnery, *A Note on the 2000 Convention for the Conservation and Management of Tuna in the Western and Central Pacific Ocean*, 33 OCEAN DEV. & INT’L L. 1 (2002).

¹⁶² *Id.* at 3.

C. INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA
(ITLOS): THE “*VOLGA*” CASE AND VMSS REQUIREMENTS AS
CONDITIONS FOR THE PROMPT RELEASE OF DELINQUENT
FISHING VESSELS

Efforts by other RFMOs and by concerned nations to compel DWFNs to use VMSs would become more effective if international courts lent their support to such schemes. ITLOS, established pursuant to UNCLOS, could play a leading role in this area. One of its most recent decisions, however, the “*Volga*” Case, is a disappointment for conservationists and it was a disappointment for dissenting Judges Anderson and Shearer as well. The “*Volga*” Case exemplifies the limits that UNCLOS places on the pro-active enforcement of fisheries conservation measures within the EEZ of States and on high seas areas. In the “*Volga*” Case, the majority of ITLOS judges declined to support a broad reading of UNCLOS Article 73, in conjunction with Article 292, as proposed by Australia.¹⁶³ The Australian government sought to impose upon the Russian Federation, as a condition for the prompt release of the seized *Volga*, a requirement that the *Volga* be fitted with VMSs. The issue strikes at the heart of the validity of non-financial conditions in bail bonds under UNCLOS Article 73, as examined for the first time by the ITLOS in the “*Volga*” Case.

The judgment serves to highlight the complex balance between due process and due deterrence. The balance emerges from the right of the coastal State to punish an offense that has been committed, and the duty of international courts deciding

¹⁶³ UNCLOS, art. 73 allows the coastal State to take measures that include boarding, inspection, arrest and judicial proceedings that are necessary to enforce its rights in the EEZ. In operative paragraph 2, it provides: “Arrested vessels and their crews shall be promptly released upon the posting of reasonable bond or other security.” Article 292(4) provides: “Upon the posting of the bond or other financial security determined by the court or tribunal, the authorities of the detaining State shall comply promptly with the decision of the court or tribunal concerning the release of the vessel and its crew.” Referring to the implementation of these articles, ITLOS, Judgment, paragraph 60 provides: “The Applicant [Russian Federation] alleges . . . that the Respondent [Australia] has set conditions for the release of the vessel and three members of the crew which are not permissible under article 73, paragraph 2, or are unreasonable in terms of article 73” In paragraph 75 the judgment reads: “Besides requiring a bond, the Respondent has made the release of the vessel conditional upon the fulfillment of two conditions: that the vessel carry a VMS, and that information concerning particulars about the owner and ultimate beneficial owners of the ship be submitted to its authorities.”

prompt release cases to not prejudice the merits of the proceedings through the weight given to the facts of the case.¹⁶⁴ The balance lies also, however, in the lee-way that UNCLOS offers international judges on whether to support the right of a coastal State to impose on the offending fishing State conditions aimed to prevent the latter from committing further fisheries offenses in the same area, upon release of the vessel pending final judgment on the determination of guilt on the facts, regarding the alleged offense.

The *Volga*, a fishing vessel flying the flag of the Russian Federation, was boarded by Australian military personnel from the Royal Australian Navy and served with a notice of apprehension on February 7, 2002. The vessel had been warned not to enter Australia's EEZ. The *Volga* was escorted to the port of Fremantle in Western Australia under charges of having engaged in illegal longline fishing in the CCAMLR area and within Australia's EEZ in the Southern Ocean during 2001 and 2002, in concert with a larger fleet of vessels engaged in IUU fishing. The *Volga* was found to carry over 131 tonnes of Patagonian Toothfish, with a capacity for nearly double the catch found, the value of which was estimated at about AU\$ 2 million.¹⁶⁵ Paragraph 77 of the ITLOS judgment provides that:

The object and purpose of Article 73, paragraph 2, read in conjunction with Article 292 of [UNCLOS] is to provide the flag State with a mechanism for obtaining the *prompt* release of a vessel and crew arrested for alleged fisheries violations by posting a security of a financial nature whose reasonableness can be assessed in financial terms. The inclusion of additional non-financial conditions in such a security would defeat the object and purpose. (Emphasis added).¹⁶⁶

The Australian government sought to obtain a favorable judgment from the ITLOS that would have required the *Volga's* owner to post one million Australian dollars as a "good behavior bond" to "guarantee the carriage of a fully operational monitoring system" and observance of CCAMLR conservation meas-

¹⁶⁴ UNCLOS, art. 292(3).

¹⁶⁵ *Supra* note 120, ITLOS Judgment.

¹⁶⁶ *Id.*

ures until the conclusion of the legal proceedings.¹⁶⁷ The judgment concludes: “A perusal of Article 73 as a whole indicates that it envisages enforcement measures in respect of violations of the coastal State’s laws and regulations *alleged to have been committed*. In view of the Tribunal, a “good behavior bond” to prevent future violations of the laws of a coastal State cannot be considered as a bond or security within the meaning of Article 73, paragraph 2, of [UNCLOS] read in conjunction with Article 292.” (Emphasis added).¹⁶⁸

To this reasoning, dissenting Judge Anderson observed that while it is true that Article 73 deals with violations “alleged to have been committed,” the terms of Articles 73 and 292 UNCLOS are “sufficiently wide to allow for the possibility of imposing conditions in a bond designed to protect from possible prejudice any on-going legal proceedings in the appropriate domestic forum.”¹⁶⁹ In Judge Anderson’s view, the “good behavior bond” requiring the *Volga* to carry a VMS would amount to a type of “bond” within the meaning of Article 73(2) that “serves a legitimate purpose (detering further poaching in the EEZ). It balances the undoubted benefit that the owner of the vessel gains from its release – renewed access to fishing grounds.”¹⁷⁰

Indeed, it was in regard to this “undoubted benefit” to the owner of the vessel, that in his dissenting opinion, Judge Shearer emphasized the “difficulty of enforcement of fisheries

¹⁶⁷ *Id.* para. 78.

¹⁶⁸ *Id.* para. 80.

¹⁶⁹ The meaning of the reference to the possible *prejudice* of the legal proceedings is best understood through the dissenting opinion provided by Judge Shearer in the “*Volga*” Case. His Honor states that art. 292, paragraph 3, of the Convention “prohibits the Tribunal from prejudicing the merits of any case before the appropriate domestic forum against the vessel, its owner, or its crew. In my opinion the Tribunal erred too much on the side of reticence. In the “*Monte Confurco*” Case, the Tribunal stated that, although a consideration of facts appertaining to the merits was not permitted in proceedings for prompt release, the Tribunal was “not precluded from examining the facts and circumstances of the case to the extent necessary for a proper consideration of the reasonableness of the bond.” (Judgment, para. 74). The present case related to grave allegations of illegal fishing in a context of the protection of endangered fish stocks in a remote and inhospitable part of the seas. In such a case, reasonableness cannot be assessed in isolation from those circumstances. In his Separate Opinion in the “*Monte Confurco*” Case, Vice-President (as he then was) Nelson indicated a degree of willingness to consider such matters as part of “the factual matrix” in prompt release cases.” Para. 6.

¹⁷⁰ Dissenting Opinion of Judge Anderson, paras. 19, 20.

laws in the inhospitable environment of the Southern Ocean. The weather is constantly bleak and cold, with high winds and heavy seas. The distances to be covered by fisheries enforcement vessels and aircraft are great. Unlicensed fishing vessels are encouraged to believe that the chances of their detection are small enough, and the potential rewards high enough, to justify taking the risk.” In the light of these circumstances, Judge Ad Hoc Shearer saw it as a logical consequence that “illegal fishing must be punished with a high and deterrent level of monetary penalty,”¹⁷¹ and went further to observe:

If deterrence is to be achieved, national courts must take into account the gravity not only of the particular offence but also of the effects of offences generally on the conservation efforts of the international community. This indicates that the penalty should be so set by national courts as to deter further illegal activity. The Tribunal, and other international courts and tribunals, should be fully aware, and supportive, of these aims.¹⁷²

It is clear that the majority in the “*Volga*” Case interpreted the terms “bond” and “financial security” in a narrower light than that espoused by dissenting Judges Shearer and Anderson. The ITLOS majority placed emphasis on the term “prompt release” in Articles 73 and 292, UNCLOS as opposed to “conditional release.”¹⁷³ The dissenting judges advocated, instead, a reading of Articles 73 and 292 that emphasized the legitimacy of “conditional release” measures, following a more “liberal and purposive interpretation in order to enable the Tribunal to take full account of the measures – including those made possible by modern technology – found necessary by many coastal States (and mandated by regional and sub-regional fisheries organizations) to deter by way of judicial and administrative orders the plundering of the living resources of the sea.”¹⁷⁴

Ultimately, the “*Volga*” Case highlights the limits that UNCLOS places on pro-active enforcement of the fisheries con-

¹⁷¹ Dissenting Opinion of Judge Shearer, paras. 10, 11.

¹⁷² *Id.*, p. 11.

¹⁷³ In his separate opinion, Judge Cot concludes: “The bond or financial security provided for in articles 73, paragraph 2, and 292 is in fact a provision of a purely financial nature. It cannot be converted into a measure of court supervision.” Para. 26.

¹⁷⁴ *Supra* note 120.

servation duties of fishing nations. Unfortunately, the poor ratification by States of the UNFSA and the FAO Compliance Agreement will serve to maintain this *status quo* until the ITLOS provides for a more aggressive interpretation of the law within the narrower and necessary confines of “due process” principles of legal certainty and predictability. In the meantime, coastal States will need to increase their surveillance budget in order to prevent and prosecute IUU fishing.¹⁷⁵

Similar efforts by coastal States and RFMOs to broaden the narrow terms of UNCLOS provisions granting sole enforcement jurisdiction to the flag State have also been met with opposition.¹⁷⁶ It is beyond the purport of this Article to explore the feasibility of an international coast guard-type of enforcement mechanism. The possibility, however, deserves to be explored in depth.

The overview provided in Section III above does not account for the complexity of issues involved in the regulation and conservation of marine living resources under regional and global regimes. It provides, however, a necessary context for understanding DOE’s call for the establishment of a WOPT. Would the function of the WOPT be to complement,¹⁷⁷ or to substitute¹⁷⁸ the existing regimes described? In order to answer this question, it is important, first, to identify the gaps to the existing regime as raised by leading conservation groups; second, to explore what obstacles would the WOPT face at the domestic level generally; and third, to integrate the concept of a WOPT into other models that consider the establishment of an Organization For the World Environment. These questions are examined below.

¹⁷⁵ In his separate opinion, Judge Cot acknowledges: “The cost of combating illegal fishing is considerable for the coastal State. Australia estimates the operating cost of a frigate at AU\$ 5 million a week. Since Heard Island and the McDonald Islands are 4,000 kilometers from Australia, a naval patrol needs to use such a vessel for about three weeks.” Para. 9.

¹⁷⁶ Rayfuse, *supra* note 97, at 217, pointing out that Japan, Republic of Korea and E.U. are deeply opposed any non-flag boarding and inspection schemes.

¹⁷⁷ To complement is to fill up, complete or make full, WEBSTER’S NINTH COLLEGIATE DICTIONARY 269 (1984).

¹⁷⁸ To substitute is to put or use in place of another thing. *Id.* at 1177.

V. TOWARDS A NEW OCEAN ETHOS? MODELS FOR ANALYZING A WORLD OCEAN PUBLIC TRUST

The DOE Conference identified, among others for future consideration, eleven Large Marine Ecosystems (hereinafter "LMEs"), the protection of which should be of the highest priority for governments and institutions devoted to the conservation of marine living resources and vulnerable habitats.¹⁷⁹ There is potential overlap between the LMEs proposed by DOE for high-priority attention, some existing RFMOs,¹⁸⁰ and Regional Seas Programs implemented by the United Nations Environmental Program (UNEP) for the same regions.¹⁸¹ In addition, DOE identified seamounts as supportive of highly unique (endemic) faunas.¹⁸² DOE expressed concern that, since the 1960s, commercial fisheries have used new technology to harvest species found in the deeper waters of seamounts, but it is

¹⁷⁹ DOE, *supra* note 6, at 7. These areas include Benguela, Bering Sea, Baja California System (Baja and Sea of Cortez), Caribbean, Central West Pacific (Palau to Tuvalu), CCAMLR area, Coral Triangle (Tropical Indo-Pacific), Eastern Tropical Pacific (Costa Rica basin), Humboldt System (Chilean/Peruvian), Patagonian, and Western Indian Ocean (East Africa).

¹⁸⁰ See Regional Fisheries Bodies – World Ocean coverage (map), *available at* http://www.fao.org/fi/body/rfb/Big_RFB_map.htm (last visited Mar. 8, 2004). For example, an LME for the Bering Sea would involve the mandates of IPHC and PICES; the Caribbean LME would involve WECAFC; the Baja California System LME may involve IATTC and OLDEPESCA; the Eastern Tropical Pacific LME would involve CEPTFA and, possibly, IATTC; the Humboldt System would engage CPPS; the Benguela LME would involve SEAFO, ICSEAF, CCSBT and, possibly, ICCAT; the Western Indian Ocean LME would involve WIOTO and, possibly, IOTC and WIOFC; the Coral Triangle LME might involve APFIC, IOTC and SWIOFC; the Central West Pacific LME might involve SPC; the Patagonian LME could involve COFREMAR. The CCAMLR LME is designed to fall within the area presently covered by the CCAMLR mandate.

¹⁸¹ UNEP has established regional seas programs in the North-East and South West Pacific; the Wider Caribbean region, the Upper-South West Atlantic, off West and Central Africa, in the Mediterranean and Black Seas, Eastern Africa, the Red Sea and the Gulf of Eden, in the ROMPE Sea Area, in South and East Asian Seas, North-West and South Pacific. Other UNEP regional seas programs include the Arctic and Antarctic regions, North-East Atlantic and Baltic Sea. UNITED NATIONS ENVIRONMENTAL PROGRAM, REGIONAL SEAS: A SURVIVAL STRATEGY FOR OUR OCEANS AND COASTS (Oct. 2000) [Booklet by UNEP].

¹⁸² For a recent report on seamounts, see TOWARDS A STRATEGY FOR HIGH SEAS MARINE PROTECTED AREAS: PROCEEDINGS OF THE IUCN, WCPA, AND WWF EXPERTS' WORKSHOP ON HIGH SEAS MARINE PROTECTED AREAS (Gjerde, K. M. ed. 2003), *available at* <http://www.iucn.org/themes/marine/pdf/GjerdeBreideHSMPA.pdf> (last visited Mar. 8, 2004); see also Paul Tooby, *Seamounts: Window on Ocean Diversity*, 5(15) Online: News about the NPACI and SDSC Community (July 25, 2001), *available at* <http://www.npaci.edu/online/v5.15/seamounts.html> (last visited Mar. 8, 2004).

the collapse of many conventional fisheries that is causing the collapse of certain species (i.e. orange roughy), and collateral damage to “complex and poorly-known benthic (seafloor) communities.”¹⁸³ The DOE Conference published a map of approximately 30,000 seamounts scattered mostly throughout the high seas waters of the Pacific Ocean, and proposed as a recommended action, among others, “establishing a comprehensive global reserve system to protect representative seamount habitats throughout the world.”¹⁸⁴

The extent to which existing RFMOs can integrate in their mandates the LMEs and the seamount reserves espoused by DOE is, in part, dependent on the management and governance gaps that characterize the existing framework for marine living species and habitats conservation under RFMOs. In a seminal paper, Lee Kimball, has identified the following gaps.¹⁸⁵ With regard to biological diversity protection in the context of the CBD, including diversity within species, between species, and of ecosystems, RFMOs do not cover certain regional fisheries, especially in the Southwest Indian Ocean and the Southwest Pacific regions, or provide inadequate and ineffective cover for species and for fisheries by-catch.¹⁸⁶ These gaps may

¹⁸³ DEFYING OCEAN’S END: AN AGENDA FOR ACTION, *supra* note 7, at 16. For a review of the current state of deep sea fisheries and their impact on seamounts, see Matthew Gianni, *High Seas Bottom Fisheries and Their Impact on the Diversity of Vulnerable Deep-Sea Ecosystems: Preliminary Findings* (2003). Report prepared for the IUCN-The World Conservation Union, the Natural Resources Defense Council (NRDC) and WWF. In an Appendix to the report, Gianni identifies the following RFMOs as having mandates that bear on the activities of deep-water bottom fishing fleets: NEAFC, NAFO, CCAMLR, and SEAFO. Using preliminary information Gianni concludes that in 2001, the catch of species is estimated at approximately 145,000 – 155,000 mt, valued at approximately \$225-250 million, though the figure of \$300-400 million may be more accurate to reflect IUU bottom trawl catches on the high seas. The overall FAO estimate for marine capture fisheries worldwide in 2001 was reported to be 83,663,276 mt, with a value of approximately \$75 billion. This would put bottom trawl catch at a fraction of a percent of the total catch reported for 2001 worldwide.

¹⁸⁴ DEFYING OCEAN’S END: AN AGENDA FOR ACTION, *supra* note 7, at 16. In the NEAFC area, Gianni, reports that vessels from France, Spain and Russian Federation dominate the high seas bottom trawl fisheries and that NEAFC has only began their regulation in the last two years. *Id.* In the NAFO area, covering cod, redfish, flounders and other flatfish, the bottom trawl fisheries is dominated by vessels from Russian Federation, Spain, Portugal, Estonia; Norway, the Faroes, Iceland, Latvia and Lithuania are involved in the prawn fisheries.

¹⁸⁵ Lee A. Kimball, *Governance of High Seas Biodiversity Conservation: A Framework for Identifying and Responding to Governance Gaps* (2003).

¹⁸⁶ *Id.* at 10. Migratory species such as turtles, marine mammals and seabirds are also poorly protected. In the Southwest Indian Ocean, New Zealand, Japan, and Aus-

be alleviated through the effective implementation of the Convention on the Conservation of Migratory Species of Wild Animals (hereinafter "CMS"), and the 1996 Inter-American Convention for the Protection and Conservation of Sea Turtles.¹⁸⁷

With regard to habitats, networks and ecosystems, the successful implementation by 2012 of a representative network of marine and coastal protected areas (MCPAs), as called for by the WSSD and reinforced by the CBD advisory body (the Subsidiary Body of Scientific, Technological and Technical Advice, SBSTTA), would signify a considerable improvement over current MCPAs. The SBSTTA describes these MCPAs as "*extremely* deficient in purpose, numbers and coverage."¹⁸⁸ The enforcement of MCPAs in high seas areas requires encouraging flag States to become members of regional and global conservation regimes, and for better coordination among these bodies. A particularly important tactic for MCPAs is to integrate management regimes for all threats to a given area. This would include applying MARPOL 73/78 regulations for Special Areas and other IMO measures available (i.e. the Guidelines for identification of PSSAs, for environmentally sensitive areas),¹⁸⁹ as those measures seek to protect habitats against pollution, to determine thresholds of protection needed for high seas areas, and to identify how actions required can be integrated within existing global and regional regimes.¹⁹⁰

Because time is of the essence in the conservation efforts espoused by DOE, the list of seven immediate opportunities for

tralia, mainly, and another six countries, were involved in the catch of orange and alfonosinos, now in decline. Gianni, *supra* note 184. In the Southwest Pacific Ocean, Gianni reports that vessels from New Zealand and Australia have been the most active fleets. *Id.*

¹⁸⁷ Kimball, *supra* note 185, at 10. The Inter-American Convention for the Protection and Conservation of Sea Turtles is the first one adopted in the Western Hemisphere. It entered into force in May 2001 and seeks to protect habitat, nesting beaches, limit intentional or accidental catch and trade in sea turtles and their products. It calls for further research on the species and obligates member States to use Turtle Excluder Devices (TEDs) to allow turtles and other marine species to escape shrimp nets where they are caught. For current U.S. efforts see Ambassador Mary Beth West, *Promoting Sustainable International Fisheries Worldwide* (May 22, 2003), at <http://www.state.gov>; see also *supra*, note 144 for previous applications of Section 609 of the Endangered Species Act (US).

¹⁸⁸ Kimball, *supra* note 185, at 11.

¹⁸⁹ *Id.* at 12.

¹⁹⁰ *Id.* at 13.

action provided by Kimball is critical.¹⁹¹ It includes restrictions on high seas areas activities at the national level; actions by like-minded States threatened by a similar activity; establishing more RFMOs where needed; engaging the International Sea Bed Authority to exercise its full mandate to prevent mining where deep seabed ecosystems may be endangered; press RFMOs to adopt the precautionary principle and the ecosystem-based management approach under the UNFSA, or to implement stronger measures under existing agreements, including in continental shelf areas beyond 200 nm; enlarging the number of States parties to existing agreements and regional arrangements; and using the endorsement of like-minded States in support of all of the existing mechanisms discussed above. Finally, the criteria developed in the UNESCO World Heritage Convention for identifying areas of “outstanding universal value” might be used as provisional criteria for identifying high seas areas that should be protected on an urgent basis and in the longer term.¹⁹²

Kimball acknowledges that the establishment of an international network for High Seas Marine Protected Areas (HSMPAs) would require extensive mapping of specific areas and their relationship to the whole (i.e. marine ecosystems).¹⁹³ The management of these areas would benefit from the advantages of a single legal framework that could ensure proper and wide endorsement by States. It would lead to the effective integration of existing legal regimes, and better protection through higher quality information and assessment in decision-making. It would encourage the adoption and application of international measures, accountability in the form of compliance, enforcement and emergency powers, and coordination among States, regimes, agencies and partners.¹⁹⁴ These measures could be complemented with greater port State enforcement, more trade control means in illegally harvested species through the application of CITES, and by using catch documen-

¹⁹¹ *Id.* at 10-15.

¹⁹² *Id.* at 14. The Malaga Workshop and the World Parks Congress have both recommended the development of these criteria regarding tropical coastal, marine and small island ecosystems for potential nomination as World Heritage Sites through a network of High Seas Marine Protected Areas (HSMPAs).

¹⁹³ *Id.* at 15.

¹⁹⁴ *Id.* at 15.

tation, certification schemes, import bans, and VMSs. In essence, all of these efforts do not mean “a prohibition on all high seas fishing any more than [they mean] a free-for-all for fishers: it means finding the right balance between fishing rights and conservation obligations, reinforced by effective enforcement.”¹⁹⁵

A development of critical importance in the search for a global coordinating mechanism for marine living resource, habitat and ecosystem protection was provided by the establishment by the U.N., at the recommendation of UNCED, of the Oceans and Coastal Areas Subcommittee (hereinafter “SOCA”).¹⁹⁶ The SOCA was created by the Inter-Agency Committee on Sustainable Development (hereinafter “IACSD”) that had in turn been created in 1992 by the U.N. Administrative Committee on Coordination (ACC).¹⁹⁷ SOCA however, was disbanded, leaving the U.N. without a clear form of coordinating mechanism. The re-establishment of such a mechanism could play a lead role in coordinating U.N. agencies charged with replacing sectoral approaches to ocean conservation with the holistic approaches envisaged under Chapter 17, Agenda 21, the ecosystem-based approach and the precautionary principle to the management of marine living resources, habitats and ecosystems. In the interim, the U.N. General Assembly established the Open Ended Informal Consultative Process on Oceans and the Law of the Sea to highlight the issues that

¹⁹⁵ *Id.* at 10.

¹⁹⁶ Together with GESAMP and ICSPRO, SOCA is was of the three main inter-agency coordination and integration mechanisms for the oceans with the U.N. system. SOCA was focused on the coordinating needs adopted by States under UNCED Chapter 17, Agenda 21. See *Oceans and the Law of the Sea: Report of the Secretary-General*, at paras. 675-686, U.N.G.A. Doc. A/5757 (March 7, 2002).

¹⁹⁷ *Juda, supra* note 132, at 110. The coordinating functions of SOCA within the U.N. system were critical, as it was composed of representatives of the following U.N. agencies with direct or indirect ocean conservation mandates: U.N. Division of Ocean Affairs and the Law of the Sea, International Labor Organization, FAO, UNESCO, Intergovernmental Oceanographic Commission, World Health Organization, International Telecommunications Union, World Meteorological Organization, International Maritime Organization, International Fund for Agricultural Development, United Nations Industrial Development Organization, International Atomic Energy Agency, World Trade Organization, United Nations Conference on Trade and Development, World Bank, United Nations Environmental Program, International Hydrographic Organization, International Council for the Exploration of the Sea, and the United Nations Center for Human Settlements.

could benefit from the existence of such coordinating mechanism.

Undoubtedly, the efforts required at the international level will also depend on the political will of States to implement the plethora of suggestions, as well as duties, outlined so far. The DOE's WOPT can also be integrated into yet larger and more far-reaching models seeking to conserve not just oceans, but the whole environment. Before discussing these models, the next section provides a cursory look into what reasons motivate States to comply with binding international law and emerging new rules.

A. GENERAL MODELS FOR EVALUATING POLICY DEVELOPMENTS WITHIN THE NATION STATE

It is beyond the scope of this article to analyze in depth the reasons that motivate States to abide by international law, although three commonly held reasons can be adduced at the outset: (a) States act through self-interest in improving performance of institutions and regimes; (b) States act by internal necessity to adjust existing structures and systems to new paradigms; and (c) States pay heed of social movements, particularly the conservation and environmental movements, where the latter may have a bearing on electoral campaign results because the domestic public so demands.¹⁹⁸

The majority of students of international law, the media, and the general public tend to view "States" as acting as a per-

¹⁹⁸ This section is not concerned with a legal argument on the methodology of international law as portrayed by its several schools. The method chosen underpins presuppositions used by international lawyers and others in approaching the analysis of an issue and how conclusions and recommendations are formulated. There are seven discernable methods of international legal scholarship. Positivism focuses on international law as a set of rules, the breach of which can lead to sanctions. The New Haven school examines the reasons and processes behind States' policies and self-interest, and how these affect the behavior of State and non-State actors. The International Legal Process school views international law as a tool in constraining decision makers and affecting the course of international affairs. Critical Legal Studies unmask contradictions, hypocrisies and failings of international legal discourse, focusing on the language of social constructs. International Law & International Relations prescribes an interdisciplinary approach to international law. Feminist Jurisprudence challenges the patriarchal nature of international law and processes, seeking to include women and the protection of women's rights. Law & Economics uses game and public choice theory to explain existing rules as balancing the most economically efficient outcome as well as the one that maximizes wealth. See *Symposium on Method in International Law*, 93 AM. J. INT'L. L. 2 (1999).

son would, or is supposed to act, in ideal circumstances: intentionally rational. Even political scientists and international relations scholars adhere to this portrayal of what "States" do when they act and why they do it. Graham Allison (University of Harvard) and Philip Zelikov (University of Virginia), however, question the simplistic reasoning behind these widely held assumptions and portrayals, noting that such simplicity erodes a deeper understanding of the complex reasons behind State action, or lack of it.¹⁹⁹ Though Allison & Zelikov focus their study to the Cuban Missile Crisis, the general outline of their theory serves to analyze State behavior in all facets of international law, including the law of the sea, State actions in its formation, and their reactions to its binding norms and emerging principles.

Allison & Zelikov call the most widely held assumption the Rational Actor Model (RAM), that is, States act with self-interest (a payoff function) in mind and with one voice, having weighted the goals and objectives, the alternatives, the consequences, and having made a choice thereof.²⁰⁰ While this may be a true rendering of the outward appearance of the diplomatic process, it is far from the reality behind the scenes.

In States with a separation of powers political structure, diplomatic representatives return back home after international negotiations only to find a reluctant legislative organ unable or unwilling to adopt the measures that are required for the judiciary and the law enforcement agencies to implement the promised outcomes embraced by diplomats.²⁰¹ This model is further nourished by the Vienna Convention on the Law of Treaties, according to which "[e]very State possesses capacity to conclude treaties," "[t]he consent of a State to be bound by

¹⁹⁹ GRAHAM ALLISON & PETER ZELIKOW, *ESSENCE OF DECISION* (2d. ed., 1999).

²⁰⁰ *Id.* at 18.

²⁰¹ For example, the inability of U.S. Congress to ratify the 1982 UNCLOS, in spite of wide support by all the domestic stakeholders, including the U.S. Navy and the ocean-related industries. Lack of accession by the U.S. is regarded as deleterious because it impedes the U.S. from influencing the interpretation of convention provisions, from resuming a leading role in complex and urgent environmental, resource, continental shelf boundary delimitation, and deep seabed mining issues. *See also* Letter from Admiral James Watkins, Chair of the U.S. Commission on Ocean Policy, to Senator Joseph Biden, Chair of the Senate Foreign Relations Committee, informing him that the 16 members of the USCOP, and the most ample sections of the marine community had endorsed a resolution calling on the Senate to favor accession to UNCLOS 1982. (Nov. 26, 2001)(on file with the USCOP).

treaty may be expressed by signature, exchange of instruments constituting a treaty, ratification, acceptance, approval or accession, or by any other means so agreed,” and “[a] person is considered as representing a State for the purpose of adopting or authenticating the text of a treaty or for the purpose of expressing the consent of the State to be bound by a treaty if (a) he produces appropriate full powers”²⁰² If it were that simple, human rights advocates would have no field, because the majority of States have signed, ratified and acceded to the majority of human rights instruments. Yet, the reality stands in stark contrast with the actual implementation of those instruments.²⁰³ States consent to be bound by many instruments that they are unable (i.e., lack of capacity)²⁰⁴ or unwilling to implement for a variety of domestic reasons.

Some of these reasons are explained by what Allison & Zelikov describe as the Organizational Behavior Model (OBM). This model focuses on outputs emerging from regular patterns of behavior. States’ actions may derive from organizational inertia: “The decisions of government leaders trigger organizational routines . . . most of the behavior is determined by previously established procedures.”²⁰⁵ Choices also depend on existing organizational capacities within the government, such as men and women trained and well equipped to perform a given task or ensure a desired output.²⁰⁶ The compartmentalization

²⁰² 1969 Vienna Convention on the Law of Treaties, U.N. Doc. A/CONF.39/27, reproduced at INTERNATIONAL LAW: SELECTED DOCUMENTS 49 (Barry E. Carter & Phillip R. Trimble eds., 1999-2000)(arts. 6, 11 and 7 respectively).

²⁰³ An observation made forcefully by Mary Robinson, U.N. High Commissioner for Human Rights. See Montserrat Gorina-Ysern, *The World Bank Takes on Human Rights*, 8 HUMAN RIGHTS DEFENDER (Sept. 7-8, 1999).

²⁰⁴ James D. Wolfensohn, President of the World Bank, Address to the World Parks Congress, Durban, South Africa (Sept. 8, 2003). Reminding the audience of the need for “[f]inding the human and financial resources to sustainably conserve and manage established protected areas and the values they provide - World Bank experience in many of our client countries suggest that, on average, effective protected area management requires about \$1 per hectare for establishment and \$1 per hectare per year to manage. With the tight fiscal and social realities in many countries, there is a clear gap between conservation and management needs and available resources; Ensuring that both the costs and benefits that arise from the creation of protected areas are equitably shared and that the systems we create do not further exacerbate the lot of the poor and powerless - unless protected areas are managed with the full support and involvement of the people who live in and near them, their sustainability will be questionable, at best.” available at <http://www.worldbank.org>.

²⁰⁵ ALLISON & ZELIKOV, *supra* note 199, at 164.

²⁰⁶ *Id.*

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and the fractioning of power among government agencies can lead to disputes on “turf” and this often results in lack of implementation of binding obligations.²⁰⁷ Differing interpretations relating to government agency mandates and internal “culture” may result in the failure to achieve more substantial organizational change through innovation, and can lead to jurisdictional struggles as well as to struggles relating to budget reductions for important programs, such as those that need to be implemented through RFMOs.²⁰⁸

The third lens for analyzing State actions is provided by the Governmental Politics Model (hereinafter “GPM”). It focuses on the politics of government, within government groups, with civil society, industry, and other stakeholders. It serves to understand how government agencies bargain with key players and ignore other non relevant actors. It also serves to understand the complex interactions between administrators, politicians, domestic fishermen, marine scientists, and foreign fishermen, all of whom are to blame for the poor state of high seas fisheries governance.²⁰⁹ A telling example of how governments react to limitations on the freedom of high seas fishing is provided by Linda M.B. Paul in her review of responses to the Driftnet Moratorium of Fishing on the High Seas.²¹⁰ Paul illustrates the different responses adopted by governments and how these responses affected domestic industries differently, as governments sought to enforce the Moratorium in light of re-flagging of vessels through the use of flags of convenience.

²⁰⁷ Juda, *supra* note 132 (discussing the turf issues within the U.S., Canada and Australian governments).

²⁰⁸ See Ambassador Mary Beth West, Deputy Assistant Secretary of State for Oceans and Fisheries, *Promoting Sustainable International Fisheries Worldwide*, Statement before the Subcommittee on Fisheries Conservation, Wildlife, and Oceans, House Committee on Resources (May 22, 2003). On funding levels provided by the Omnibus Appropriations Bill, FY 2003, for the U.S. to meet its membership obligations to more than a dozen RFMO agreements. Because of lower levels of funding appropriated by Congress, the Pacific Salmon Commission will receive “the smallest feasible amount of funding” whereas the Great Lakes Fishery Commission and the International Pacific Halibut Commission will be taking reductions to ensure full operation of the other commissions, for which roughly \$20 million had been appropriated annually from the International Fisheries Commission account. It is unclear whether in FY 2004, the budget will cover a requested \$20.04 million that includes \$75 million for the Antarctic Treaty, *available at* <http://www.state.gov/g/oes/rls/rm/2003/20952.htm> (last visited Mar. 8, 2004).

²⁰⁹ Hedley, *supra* note 1.

²¹⁰ Paul, *supra* note 81, at 4.

With the GPM model in mind, it is revealing to identify what domestic groups each government decided to target.

Among South American States, OLDEPESCA, for example, adopted a resolution in 1991 that triggered Ecuador, Venezuela, Uruguay and Argentina to ban the use of driftnets and refused to grant high seas fishnet fishing licenses to vessels intending to engage in such activities.²¹¹ One response of the U.S. government was to press Congress to pass a law targeting producers, both domestic and foreign, of fish or fish products caught with driftnets in the South Pacific. Another response was to seek cooperation with Japan, Taiwan and North Korea. When Taiwan and North Korea did not respond as expected, the U.S. government imposed direct trade sanctions that could be followed by indirect trade sanctions against unrelated products, and Congress enacted a law that would entitle the U.S. to deny port access to delinquent vessels.²¹² The U.S. Coast Guard (hereinafter “USCG”), the National Marine Fisheries Service, and the Navy cooperated in a worldwide surveillance program.²¹³ Canada’s government focused on aggressive airborne and maritime surveillance as a deterrent and held consultations with Thailand, Malaysia, Indonesia, and Singapore, the States where the salmon illegally caught by Taiwan was canned, frozen and re-exported.²¹⁴ Japan, like Canada, focused on intensified patrolling mechanisms, coupled with a compensation program to offer incentives to driftnet vessel owners with at least two year activity in the squid fishery.²¹⁵

The Republic of Korea reduced the percentages in effort, number of vessels and length of nets, and limited fishing seasons, adopting a limited compensation program that did not discourage owners and led, instead, to a relocation of fishing effort to squid jigging.²¹⁶ Taiwanese authorities targeted fishing fleets by threatening to withdraw fishing certificates and by reaching agreements with the authorities in the ports of Singapore and Cape Town (South Africa) to allow Taiwanese inspec-

²¹¹ *Id.*

²¹² *Id.* High Seas Driftnet Fisheries Enforcement Act 1992, 1978 Pelly Amendment Act.

²¹³ *Id.* at 5.

²¹⁴ *Id.*

²¹⁵ *Id.* at 6.

²¹⁶ *Id.*

tors stationed at those ports to monitor driftnet fishing equipment on board vessels flying the Taiwanese flag. A buy-back program for older vessels and subsidies (in the form of loans) to the industry was also implemented. This program was partially successful, as the stakeholders complained that the compensation for the vessels was inadequate and for gear non-existent. Since 1992, the U.S. and Taiwan authorities cooperated in the inspection and monitoring of Taiwanese vessels in the North Pacific, including catch effort, landings, transshipments, and discard of damaged gear.²¹⁷

The People's Republic of China's Ministry of Agriculture took a leading role by addressing local governments and fishing companies regarding its ban on large-scale driftnet fishing from 1993 onward. It engaged in an aggressive program of confiscations of catch, gear, and related income, coupled with fines, revocation of fishing licenses, detentions, and punishment of offenders. PRC and the U.S. also cooperated in joint enforcement and surveillance.²¹⁸

The European Union's Council of Ministers targeted driftnet gear in the North Atlantic, but allowed for considerable concessions as to certain areas, length and depth of deployment. France was exempted from these measures, as such the Irish and U.K. fishermen perceived exemption as inequitable. A high mortality of dolphins was reported in a 1993 Scientific Fisheries Committee study ordered by the European Parliament. South Africa passed additional legislation in 1993 prohibiting the use of gillnet, purse seine, longline and other related trawl nets without a permit, and the possession, landing, or transshipment of any tuna caught by gillnets.²¹⁹

The success of DOE's WOPT requires its proponents to be aware of internal government dynamics and of the non-government groups within States that will bear the brunt of the sweeping effects of WOPT implementation. In other words, the political feasibility and the likelihood of success for the vision to be developed into policy and, ultimately, into binding domestic and international law, depends on all of the stakeholders identified above. It also depends on the official re-

²¹⁷ *Id.* at 6-7.

²¹⁸ *Id.* at 7.

²¹⁹ *Id.* at 8.

sponses of governments willing to adopt DOE's recommendations. This awareness can inform strategies for political success through lobbying, as conflicting approaches to ocean resources conservation within domestic agencies may or may not be the same as the strategies required to influence stakeholders and government agencies across nations. In the U.S., for example, the success of the National Parks Service to enclose wilderness areas throughout the continent under government custody and stewardship principles (i.e. as *res publicae*), was made possible because utilitarian conservationists (opposed by strict preservationists) accepted that catering to the railway, car, and hospitality industries would guarantee the desired outcome by allowing for tourism to flourish. Consumptive uses were prohibited. The creation of national historic site preservation areas and museums, and the recruiting of youth and men into social projects during the Great Depression lent credit to the U.S. National Parks enclosure movement.²²⁰ Although the federal government sought to acquire vast tracks of land through donation from its owners or the States concerned, land was purchased through aid provided by U.S. philanthropists, and the public and private owners of historic places were offered grants and technical assistance to encourage their preservation.

Paul's survey above does not look into the domestic effects that the driftnet moratorium had on the array of industries related to or dependent on high seas trawling fleets. These effects are important, as other studies document.²²¹ Some studies identify the potential problems between industrial fishers and local communities organized as cooperatives, when new fisheries models are introduced.²²² These are factors that are

²²⁰ Barry Mackintosh, *The National Park Service: A Brief History* (1999), available at <http://www.cr.nps.gov/history/hisnps/NPSHistory/npshisto.htm> (last visited Aug. 11, 2003).

²²¹ Asian Development Bank, *supra* note 2. See also PEW OCEANS COMMISSION, SOCIOECONOMIC PERSPECTIVES ON MARINE FISHERIES IN THE UNITED STATES; WORLD CONSERVATION UNION, PUTTING PEOPLE BACK IN MARINE PROTECTED AREAS: A U.S. STRATEGY FOR SOCIAL SCIENCE RESEARCH IN DEVELOPMENT (June 2002), available at http://www.iucn.org/themes/wcpa/newsbulletins/news/june02/news_june02.htm#http:www.mpa.gov (last visited Mar. 8, 2004).

²²² Thorpe, Ibarra and Reid, *supra* note 89. The authors advocate a property model that privatizes EEZ and high seas fisheries resources through ITQs, rather than privatizing the industrial fishing fleets themselves. In their view, open access results in overcapacity, overexploitation and conflict among communities. They cite Mexico as

likely to influence the effective domestic implementation by governments of measures adopted at the international level, so that equity, efficiency and sustainability can be achieved. Strategies geared to muster consumer support through eco-labeling campaigns, many need to consider some of the issues raised by Philip E. Steinberg, of Florida State University, with regard to the Marine Stewardship Council (hereinafter "MSC").²²³ The point being raised by Steinberg is that the MSC approach "establishes fish as a club good, a form of property that, by definition, excludes some individuals from participation."²²⁴ Such exclusions may be desirable but their political cost may be very high and their ethics may not "be endorsed

an example, where the highest fisheries export revenues and employment arise mostly from shrimp inshore fisheries. These cooperatives enjoyed exclusive access to shrimp and eight other inshore fisheries, though they were overcapitalized and lost profitability. In 1988-94 the administration curbed state support for the cooperative sector by closing cooperatives, reducing catch and re-formulating access arrangements to the inshore fisheries, but without introducing TACs or quotas. In 1992, the Fisheries Law withdrew exclusive access rights previously enjoyed by cooperatives. A system of permits and concessions was introduced and its effect was to encourage investors to enter the field. By 1993, 90% of the North Pacific offshore shrimp trawler fleet was privately owned for the first time. These changes in property rights led to "widespread conflict," between the cooperatives and the investors.

²²³ Phillip E. Steinberg, *Fish or Foul: Investigating the Politics of the Marine Stewardship Council*, Conference on Marine Environmental Politics in the 21st Century, available at <http://globetrotter.berkeley.edu/macarthur/marine/papers/steinberg-6.html> (last visited Mar. 8, 2004). The MSC (founded in 1996) is described as a non-point-of-production marine fisheries governance, whose purpose is to bypass the State by empowering various non-State elements of civil society with gate-keeper functions. The MSC was designed by the World Wide Fund for Nature in partnership with the Dutch-British-based transnational corporation Unilever, and it was modeled after the Forest Stewardship Council (FSC), an eco-labeling initiative developed by environmentalists and the timber industry in 1993. Unilever is described as a global leader in fish processing, one of the world's largest buyers of fish (25 percent of the world's white fish catch) and sellers of frozen fish (marketed as Gorton's in the U.S., Bird's Eye in the U.K. and Iglo in Germany). The main objective of the MSC is "to ensure the long-term viability of global fish populations and the health of the marine ecosystems on which they depend." (MSC 1996: 1). The MSC would enable private certification agencies to certify local fleets that adopt and follow a sustainable fisheries code of conduct. Processors and distributors who undertake to buy fish only from certified fleets, would be entitled to use an MSC logo on their products. This would have considerable market impact on those who do not adopt the required conservation measures. Steinberg observes that, "the gate-keeping function is shifted to the retailers and the consumers. These actors then have the responsibility of requiring participants in the fish-provision club to mandate that their suppliers conduct their business in a sustainable manner. The MSC as an institution facilitates the process by developing the code of conduct and by certifying the monitoring firms who certify local fleets; that is, the MSC sets, but does not enforce, the exclusionary threshold. Actual exclusion is devolved to the retail scale, where it is beyond the reach of legislation designed to protect free trade."

²²⁴ Id.

without first critically examining who is excluded, why these entities are excluded, and who makes the exclusionary decisions” because “it puts an especially high premium on issues of transparency, democracy, and individual motivations of each actor involved.”²²⁵ Ultimately, Steinberg raises the issue of whether the goal of “sustainability” should refer solely to “the sustainability of ecological communities or the sustainability of economic and social communities as well.” Schemes such as MSC should “take on the burden of attempting to minimize social disruption along with minimizing environmental degradation.”²²⁶

Steinberg’s focus on the “third principle,” the social principle that considers the “people” affected by the vision to conserve marine animals serves to raise the issue of developed country versus developing country views on sustainable conservation of marine living resources and economic dependence on those resources.²²⁷ It has been argued that DWFNs erode the livelihood of coastal fishing communities in some parts of the world.²²⁸ In other parts of the world where manufacturing, industrial, agricultural, service and information sectors are not developed, the only source of revenue for the nation stems from

²²⁵ *Id.*

²²⁶ *Id.* at 2.

²²⁷ Marine fisheries and aquaculture directly employ about one million people in Latin America, 90% of whom are artisanal producers. Thorpe, Ibarra and Reid, *supra* note 89; Asian Development Bank, *supra* note 3, at 77 (pointing out that more than one billion people around the world depend on fish for their primary source of protein and that about 50 million people rely on small-scale fisheries, through catching, processing, trading, or marketing, for their livelihoods. Fish are also used in cosmetics, animal and crop feeds, detergents, jewelry, industrial, and pharmaceutical products. The range of policy and legal approaches needed to introduce changes to existing practices are daunting. The needs to eliminate over fishing, to rebuild and enhance fish stocks, minimize wasteful practices, promote sustainable aquaculture, rehabilitate fish habitats and develop fisheries for alternative species are recognized. But governments are called to make decisions that reconcile the objectives of generating employment and income with the imperatives of conservation and rehabilitation of fish stocks, striking a balance between artisanal or small scale fisheries and the promotion of modern industrial fishing, and the need for a role for the private sector; see also M. Tanaka, *Bridging the Gap Between Northern NGOs and Southern Sovereigns in the Trade-Environment Debate: The Pursuit of Democratic Dispute Settlements in the WTO Under the Rio Principles*, 30 *ECOLOGY L. Q.* 113 (2003).

²²⁸ Gert van Santen, *Governance of Marine Fisheries and Its Impact on Rural Poverty – Past, Present and Future*, at para. 16 (Dec. 2001), available at <http://worldbank.org>. The author reports fierce competition between small-scale fishermen groups and foreign as well as domestic industrial fishing, in an economic context of lack of alternative employment in rural coastal areas.

the sale of access rights to DWFNs over national marine living resources.²²⁹ The North-South dialogue is addressed in broader and more general terms by each one of three current models that seek to establish a much more ambitious project than WOPT, as they would apply to land, atmosphere and ocean conservation. These models are examined below because they provide elements that suggest that the WOPT espoused by DOE is feasible, and that the social principle in countries of the South and the North requires due consideration.

B. WOPT IN THE CONTEXT OF AN ORGANIZATION FOR THE WORLD ENVIRONMENT (OFWE)

The establishment of a WOPT governance model for high seas marine life and habitats, as espoused by Orbach and the DOE Conference, can benefit from existing regimes. It can also insert itself within a broader environmental movement concerned with governance of the entire world environment. The issue here is whether the WOPT may require the establishment of a governing body, or it may be implemented without it. This question is important because it is tied to the time frame that the creation of such global ocean organization would require to be representative and effective in the performance of its goals. While the question will not be answered here, it is desirable, as a preliminary step, to examine the wider context where it can be analyzed.

This section provides a brief outline of three models studied by Dena Marshall that aim to provide global governance for economic, social, and environmental issues through the adoption of an Organization for the World Environment (OFWE). These models are: (1) the Yale Environmental Law and Policy Global Environmental Governance Project for a Global Environmental Organization (GEO); (2) the German Advisory Council on Global Change, International Environmental Organization (IEO); and (3) the University of Warwick's World Environmental Organization (hereinafter "WEO").²³⁰ The models are subsumed within the momentum generated by the 2002

²²⁹ Cordonnery, *supra* note 161, at 1. Among Pacific Island nations "tuna is not just a resource, it is the only resource that sustains their economies." *Id.*

²³⁰ Dena Marshall, *An Organization for the World Environment: Three Models and Analysis*, 15 GEO. INT'L ENVTL. L. REV. 79 (2002).

WSSD, as it reassessed the paradigm of sustainable development (meeting the “needs and aspirations of the present without compromising the ability of future generations to meet theirs”), as defined by the World Commission on Environment and Development, and articulated by the 1992 Earth Summit.²³¹ The essence of these developments in international law is the recognition that the environment is the common responsibility of all States cooperating in partnership, even though the responsibilities may be different for nations in the North and nations in the South.²³² The OFWE seeks to establish a “global environment governance” body in response to a perception that the more than 302 multilateral environmental agreements (hereinafter “MEAs”) in place do not address adequately the goal of sustainable development, and that the key institutions with environmental mandates, UNEP, and the United Nations Commission for Sustainable Development (hereinafter “CSD”) are ineffective, as they lack enforcement powers. The UNEP, though praised for its work, is regarded as a fragmented system without executive authority, a narrow mandate, small budgets, splintered centrality, and no means to ensure prompt action through its consensus-based voting procedures.²³³

Marshall identifies four elements for an OFWE. First, it must catalyze changes in human perception about the global environment. These changes must be effected through legislation that promotes the principles of democracy, transparency and accountability in all of the activities involved. Second, it must enjoy widespread legitimacy among the relevant stakeholders (executive authorities and administrative bodies, legislatures, and civil society). Third, it must promote North-South consensus building. And, fourth, it must be self-financed.²³⁴ The WOPT governance model for the high seas espoused by DOE and Professor Orbach can benefit from considering how the OFWE intends to develop these elements, and how, similarly to

²³¹ *Id.* at 79-80.

²³² *Id.* at 87.

²³³ Among the supporters of the OFWE objective are academics, experts, international civil servants, and leading political and trade figures, including French President Jacques Chirac, former German Chancellor Helmut Kohl, Brazil's former President Cardoso, Singapore's Prime Minister Goh Chok Tong, South Africa's President Thabo Mbeki, and former WTO Executive Director Renato Ruggiero. *Id.* at 86-7.

²³⁴ *Id.* at 86.

the review provided above about RFMOs, the three models discussed next identify existing governance structures, functions, mechanisms, and approaches.²³⁵

The Yale model proposes to establish a “lean, flexible and focused” GEO with disciplinary functions that would merge or replace U.N. bodies, serve as a forum for the exchange of data, information and policy analysis, and would increase trade liberalization and economic integration.²³⁶ The GEO would address four major environmental governance problems: failed collective action, fragmentation, deficient authority and insufficient legitimacy of existing bodies. It would be governed by the principles of subsidiarity, integrated policy-making, broad based participation (i.e. NGOs, industry, private society, environmental groups and academia), transparency, and accountability. It would be entrusted with decision-making,²³⁷ implementation,²³⁸ monitoring,²³⁹ and dispute resolution capacities.²⁴⁰ It would create a “coherent and effective international response to global-scale pollution control and natural resource management issues.”²⁴¹ To that effect, the GEO would engage in com-

²³⁵ *Id.* at 88.

²³⁶ *Id.* at 88. The Yale Environmental Law and Policy Global Environmental Governance Project (GEG Project), discussed in DANIEL C. ESTY & MARIA H. IVANOVA, MAKING INTERNATIONAL ENVIRONMENTAL EFFORTS WORK: THE CASE FOR A GLOBAL ENVIRONMENTAL ORGANIZATION (Yale Center for Environmental Law and Policy Working Paper Ser., Working Paper No. 2/01, 2001).

²³⁷ The decision making function would rely strongly on high quality scientific data, information and policy analysis, and would seek broad based agreements on policy for long term environmental and risk forecast, early warnings and environmental impact assessments. It would seek knowledge networking to ensure broad based agreements on course of action. It would seek to rule by consensus, particularly on transboundary externalities and shared resource management. *Id.* at 89. This consensus would consist on a double-weighted majority along the lines of the Montreal Protocol, whereby developing and developed countries, through self identification as to group, would vote separately on issues, and decisions would be adopted when the assent of two thirds of the membership representing simple majorities in both groups would be obtained. Marshall, *supra* note 231, at 90.

²³⁸ *Id.* The implementation function would encourage information sharing and would be guaranteed by appeal to joint mobilization of public and private sectors seeking to build environmental capacity within nations, including financial, scientific, management and technical assistance programs.

²³⁹ *Id.* The monitoring function would rely on continuous and systematic data gathering and information collection and the GEO would be “the central repository and distribution body for such information.”

²⁴⁰ *Id.* Based on cultural diversity, ongoing cooperation, and reconciliation procedures.

²⁴¹ *Id.* at 88.

mon planning with U.N. agencies with environmental expertise (i.e. UNEP, WMO, IOC, IHP, UNESCO), it would integrate planning with the conferences of the parties to the major environmental treaties, and would establish permanent consultation links with trade and development bodies (i.e. WB, WTO).

The focus of the model advocated by the German Advisory Council on Global Change (the Council) is not the creation of a new organization, but rather to restructure and upgrade the UNEP gradually into an International Environmental Organization (hereinafter "IEO"). It seeks to ensure a balance between national sovereignty and increased participation by empowered developing countries through a better North-South dialogue on economic development and environmental protection issues.²⁴² The IEO would operate through improved cooperation among existing agencies and coordination among relevant actors. It would integrate the various conferences of the parties to existing environmental agreements under an umbrella framework agreement. The IEO would have information gathering, evaluation and dissemination of findings functions. A newly created "Environmental Security Council," through coercive compliance measures, financial, would exercise enforcement powers and technical incentives modeled on the WTO.

Finally, the University of Warwick's WEO model seeks to complement existing environmental structures and mechanisms where the latter fall short. It would facilitate deal-making between industry and environmental bodies. This would be achieved through "exchanges of environmental concessions for non-environmental considerations," utilizing direct cash payments by nations (i.e. polluter pays principle), in exchange for "stricter environmental management and exchanging policy commitments and concessions."²⁴³ Critical to the success of the WEO would be to establish clear title to environmental assets, and ensure the consensus of populations worldwide.

Marshall observes that the GEO model is based on cooperation, soft law and delegated lawmaking, with the U.N. at its center, and seeks global governance; whereas the IEO model

²⁴² *Id.* at 93.

²⁴³ *Id.* at 98.

seeks global government through a centralized WTO type model, and the WEO model seeks a “legislative-cum-executive” authority that fits the hierarchical model pursued by the OFWE, but would require amendment of the U.N. Charter. In her view, the GEO model faces the same challenges as those affecting the *status quo* because it cannot overcome the obstacles posed by the need to enforce international obligations relating to environmental protection, versus the entrenched exercise of national sovereignty by States. Because any legal instrument establishing the GEO would have to be ratified by nations, the GEO model, like the current *status quo*, cannot find an adequate solution to failed collective action. In this light, the IEO model is also regarded as unrealistic because nations would not relinquish sovereignty over domestic and international matters to the proposed Environmental Security Council. Finally, the WEO model would also require a basic agreement or “global environmental law code” that would compete with WTO functions and would face the same tensions as the other two models, between national sovereignty and conservation obligations, whether the latter were based on hard law or soft law. The issue at stake for the WEO model would be the extent to which nations would be willing to relinquish economic development prospects in favor of environmental sacrifices.²⁴⁴

The scope of this paper does not permit an in depth examination of the plethora of issues raised by the models outlined above. The following, however, are critical for assessing, by analogy, the issues that DOE’s WOPT will face with regards to high seas marine life and habitat governance. First, the three models seem to fall into the trap identified by Allison & Zelikov. The North-South dialogue is coached in RAM terms. Both camps are portrayed as rational actors that respond in one block voice, even though it is clear that, at the diplomatic level, there are considerable disparities in participation by members of both groups, and that these disparities affect ratification of international instruments.

The three models address failed collective action, and appear to be more realistic, using a lens more similar to Allison & Zelikov’s Organizational Behavior Model (hereinafter “OBM”) when describing the disparate commitments faced by govern-

²⁴⁴ *Id.* at 91-2, 94-6, 100-101.

ments, and the need to create incentives for governments to collaborate toward common goals. The WEO model, in seeking a better deal through environmental bargaining, may be closer to the fragmented realities faced by governments at the domestic level.

The three models and the RFMO mechanisms outlined in Section III above converge in their concern over important obstacles to governance success: deficient expertise about marine life and environmental issues generally, piecemeal approaches to the areas of mandate, justified by fragmented data collection at the local, regional and global levels. Knowledge networking and expertise sharing among relevant stakeholders is encouraged by all three models, and is promoted by the SOCA and the U.N. None of the models addresses the issue of system architecture and design, compatibility of data sets and other technical problems that require considerable financing efforts. It is unclear at this stage whether the resolution of these technical problems will be resolved or, rather, exacerbate the existing redundancy and rivalry among U.N. agencies, other bodies, among governments, RFMOs, fishing industry, and relevant stakeholders.

The funding issue may not pose a direct threat to the establishment of an OFWE type organization or to a WOPT because there appears to be significant commitment from public and private funds, including the World Bank, Global Environmental Facility, United Nations Development Programme, and others. It is unclear, however, to what extent funding would be forthcoming for debt relief for domestic industries, including DWFNs, high seas fishing fleets, and related industries and local communities affected by the likely dislocations caused by the WOPT. Even if such funding were forthcoming, it would raise questions such as whether it should be best administered through U.N. agencies, and how conflicts among alliances and conflicting interests could be avoided. One of DOE's recommendations, echoed in the three models examined above, particularly in the WEO, is that countries responsible for polluting the environment, including those who destroy marine habitats, must pay compensation for damage to those countries entitled to receive such compensation. The WOPT did not articulate whether such payments also, or alternatively, should be made to an international fund, since high seas habitats and ecosystems do not belong under any State's national sovereignty.

Therefore, the issue of title is yet to be resolved. A WEO type model emulates the complex arrangements currently preventing the Kyoto protocol from being widely implemented.²⁴⁵

The three models lament the deficiency in political authority, resource expertise and power at the global governance level, both for the general environment and for the oceans. Equally, they seek to promote greater North-South dialogue, cooperation, and representative voting systems (i.e. the double-weighted majority). The OFWE, the three models discussed, and the WOPT will require streamlined research, more effective policy making, greater enforcement powers and more generous funding sources. They will need to address the realities of local implementation, what Marshall describes as the “micro-systemic approach.”²⁴⁶

VI. CONCLUSION

This paper has provided a preliminary overview of relevant doctrinal legal elements, organizational structures, legal and policy objectives, institutional mechanisms, and diverse models of analysis that serve as context for and aide to a new ocean ethos for the protection of high seas marine species and habitats, as proposed by Professor Michael Orbach in the Fourth Annual Roger Revelle Lecture and by the DOE Conference in Los Cabos in 2003. The new vision is ambitious in scope and faced with colossal complexities as to its prompt implementation.

The paper has highlighted that the notions of *res nullius*, *res communis*, and *res publicae* are important for the development of a WOPT. These notions serve to identify whether a global governance regime for the high seas could be based on entitlements arising from private property-type rights, notions of custody and stewardship, a combination of the latter, or an entirely new approach to high seas marine life, marine habitats, and vulnerable ecosystems. These notions have only been examined briefly and require continued in depth analysis.

²⁴⁵ John Barlow Weiner, Gilbert Bankobeza, Kitty Block, Amy Fraenkel, Teresa Hobgood, Alice Mattice, David W. Wagner, *International Environmental Law*, 37(2) THE INTERNATIONAL LAWYER 575, 577 (2003).

²⁴⁶ Marshall, *supra* note 230, at 103.

A framework agreement seeking to establish a WOPT can incorporate mechanisms ensuring integration of objectives with existing regulatory bodies, including: (a) the FAO and its regional commissions; (b) RFMOs; and (c) the conferences of the parties to the UNFSA and other international instruments. The WOPT framework agreement can also include inter-agency cooperation provisions that would ensure coordination with an inter-agency mechanism such as SOCA, UNEP, and the institutions promoting the adoption of an OFWE. The paper has not examined other regulatory bodies such as the IMO. This examination would be desirable in the future.

A characterization of marine life as wildlife has not been examined in depth. Its success depends on the outcome of further inquiries over title to marine species, and the regulatory integration between WOPT and other bodies with mandates over high seas marine life and habitats. These preliminary legal issues, structural organization design issues, and system objectives issues are critical also for WOPT proponents, as they lay at the basis of early decisions on the type of decision-making mechanisms that would best serve the purposes of WOPT. This approach, however, implies building the house from the bottom up. Arguably, the rate of compliance with the Driftnet Moratorium can serve as a valuable example of how WOPT objectives may be reached through soft-law instruments. In that context, WOPT proposals for a shift in enforcement procedures would need to consider in detail how such enforcement has fared under the Driftnet Moratorium, and would have to assume that similar hurdles would arise in any attempt to shift enforcement away from the provisions of UNCLOS on port and flag State enforcement jurisdiction. These considerations would serve to anticipate the success of the Seamounts Moratorium sought by the DOE Conference. This paper has not examined the development of an International Coast Guard type of enforcement, which would be required to monitor and for the surveillance of extended HSMPAs based on ecosystem conservation. This examination needs to be carried forward.

Finally, the success of the WOPT will reside in avoiding the oversimplification pitfalls that Allison & Zelikov identify when policy analysis is reduced to the Rational Actor Model. Instead, WOPT proponents can be mindful of the progress made by the more ambitious OFWE models for the global envi-

ronment. They can draw important practical and strategic lessons from the success of these models to generate international community support. Whether the development of the WOPT is achieved through a new institution or through existing institutions, its proponents seek the adoption of a framework agreement that will require extensive ratification and effective implementation by States. The task at hand is daunting, the dialogue is rich indeed, and the questions raised are more numerous than the answers provided at this stage. In the meantime, it is to be hoped that the energy and the commitment of WOPT proponents will garner support among stakeholders with the power to prevent the rapid rate of high seas marine life and habitat destruction.