Allocating Fish Across Jurisdictions

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Abstract

The world’s fisheries are in a time of grave crisis. Most of the fisheries that have produced bountifully in the past are now overfished, with many species facing commercial extinction. To respond to this situation, the world community adopted the 1995 Straddling and Migratory Fish Stocks Agreement, and since then several regions have adopted innovative regional fishery agreements. The most ambitious of these new agreements is the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Central and Western Pacific Ocean, which was adopted in Honolulu on September 5, 2000. This treaty, like the 1995 Agreement, adopts the precautionary principle as its main guideline. It requires countries to engage in data collection and data exchanges to promote transparency. It creates a Commission to allocate fish stocks. The Commission must make some decisions by consensus, but for others will utilize a chambered voting system whereby the distant-water fishing countries and the island countries must each agree by an enhanced majority before a decision can be adopted. To provide further protection for each country, the Convention authorizes countries to seek judicial review of any Commission decision if the decision is thought to violate the Convention, or the 1995 Agreement, or the 1982 Law of the Sea Convention. This Convention is now in force, and its operations will be monitored closely to see if its ambitious and important goals can be met.

One of the central mission of this Convention and other regional fishery management organizations is to allocate fish among its contracting parties. This paper discuss the criteria that should be considered when making such allocation decisions.

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Worldwide Crisis in Fisheries

Our generation has awakened to a worldwide crisis in fisheries that demands immediate and urgent attention. The decimation of fish populations around the globe has been well documented,¹ but a few examples help emphasize the urgency of the present situation:

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¹ David E. Pitt, Despite Gaps, Data Leave Little Doubt that Fish Are in Peril, N.Y. Times,
Scientists now understand that without “highly precautionary management,” most deep-sea fisheries are unmanageable, because the characteristics of deep-sea species – “long-life spans, late maturity, slow growth, and low fertility” – make them particularly vulnerable to overfishing.\(^2\)

Recent research has revealed that deep-sea species in the northern Atlantic are on the brink of extinction because of large-scale bottom trawling. “A recent study on the Scotian Shelf cod stocks in the North Atlantic reveals that they are now four per cent of their estimated

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biomass in 1853, with most of the drop occurring since World War II.”

Other cod stocks in the North Atlantic are now at less than ten percent of their original biomass. After the collapse of the cod stocks in the 1980s and 1990s, bottom trawling became common, causing some stocks to plummet by 98 percent in one generation, putting them into the “critically endangered” category. Scientists have been trying to bring this problem to the world’s agenda – and in February 2004, more than 1,000 marine scientists issued a statement expressing their “profound concern...regarding the unsustainable nature of many deep-sea bottom trawl fisheries on the high seas, and the physical destruction wrought by bottom trawling, including damage to rare and endemic species and critical habitats.”

* Fisheries in the exclusive economic zones of the United States remain dangerously depleted, and members of the U.S. Ocean Commission and its private counterpart, the Pew Commission, issued a recent report saying that if immediate action is not taken the crisis will

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4 Id.

5 Earthweek: Deep-Sea Damage, HONOLULU ADVERTISER, Jan. 8, 2006 (citing an article by Jennifer Devine of Newfoundland’s Memorial University in NATURE).

become irreversible in five to seven years.\textsuperscript{7}

The international community has developed global and regional treaties, but practical decisions must be made regarding how best to determine how many fish of each species can be harvested each year, how to determine how much of this amount each country should be allowed to harvest, and how to enforce the decisions that are made.

**The 1982 United Nations Law of the Sea Convention**

The acceptance by the negotiators at the United Nations Convention on the Law of the Sea\textsuperscript{8} of the simple direct and elegant language of Article 192 marked a turning point in the human stewardship of the ocean: “States have the obligation to protect and preserve the marine environment.”\textsuperscript{9} Each word has importance and power. The operative word “obligation” makes

\textsuperscript{7} U.S. Gets D+ Grade for Ocean Policies, HONOLULU ADVERTISER, Feb. 5, 2006.


it clear that countries have positive duties and responsibilities and must take action. The verbs “protect” and “preserve” reinforce each other, to emphasize that countries must respect the natural processes of the ocean and must act in a manner that understands these processes and ensures that they continue for future generations. The “marine environment” is a purposively comprehensive concept covering all aspects of the ocean world – the water itself, its resources, the air above, and the seabed below – and it covers all jurisdictional zones – internal waters, territorial seas, contiguous zones, exclusive economic zone, continental shelves, archipelagic waters, and high seas. Article 192 thus recognizes the profound responsibility that all countries have to govern the oceans in a manner that respects the marine creatures that inhabit them. The marine environment must thus be preserved for the benefit of those who will come later to exploit its resources, to study its mysteries, and to enjoy the many pleasures that the oceans offer us.

The provisions of the 1982 U.N. Law of the Sea Convention regarding fisheries are general in nature but nonetheless clearly articulate an overarching duty to cooperate in all situations involving shared fisheries. Article 56 recognizes coastal state sovereignty over the living resources in the 200-nautical-mile exclusive economic zone (EEZ), but Articles 61, 62, 69, and 70 require the coastal state (a) to cooperate with international organizations to ensure that species are not endangered by over-exploitation, (b) to manage species in a manner that protects “associated or dependent species” from over-exploitation, (c) to exchange data with international organizations and other nations that fish in its EEZ, and (d) to allow other states (particularly developing, land-locked, and geographically disadvantaged states) to harvest the surplus stocks in its EEZ. Article 63 addresses stocks (or stocks of associated species) that
“straddle” adjacent EEZs, or an EEZ and an adjacent high seas area, and requires the states concerned to agree (either directly or through an organization) on the measures necessary to ensure the conservation of such stocks. Article 64 requires coastal states and distant-water fishing states that harvest highly migratory stocks such as tuna to cooperate (either directly or through an organization) to ensure the conservation and optimum utilization of such stocks. Article 65 contains strong language requiring nations to “work through the appropriate international organization” to conserve, manage, and study whales and dolphins. Article 66 gives the states of origin primary responsibility for anadromous stocks (e.g., salmon and sturgeon), but requires the states of origin to cooperate with other states whose nationals have traditionally harvested such stocks and states whose waters these fish migrate through.

On the high seas, Articles 118 and 119 require states to cooperate with other states whose nationals exploit identical or associated species. Article 118 is mandatory in stating that nations “shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned” (emphasis added), and suggests creating regional fisheries organizations, as appropriate. Article 120 states that the provisions of Article 65 on marine mammals also apply on the high seas.

These provisions thus reinforce the duty to cooperate that has always existed in customary international law. Because they are not specific enough to resolve conflicts that have arisen as species have been over-exploited, the 1995 Straddling and Migratory Stocks Agreement was negotiated.


It builds on existing provisions in the 1982 United Nations Law of the Sea Convention described above, but it also introduces a number of new strategies and obligations that have been requiring fishers to alter their operations in a number of significant ways. In addition to strengthening the role of regional organizations, as explained below, it also promotes peaceful dispute resolution by applying the dispute-resolution procedures of the Law of the Sea Convention to disputes involving straddling and migratory stocks. Ratifications of the 1995 Agreement have been steady, but many important countries have not become contracting parties. As of September 2005, 56 countries had ratified the Agreement, including most European countries, the United States, India, and Liberia, but key fishing countries like Japan, South Korea, China, and most of the Latin American and African countries, and many of the countries providing flags of convenience had not yet ratified the Agreement. Professor Rosemary Rayfuse has recently suggested that “even in the absence of...wider ratification, it is arguable that certain principles embodied in the [Straddling and Migratory Fish Stocks Agreement] and the [FAO] Compliance


Agreement may no be binding on all states as a matter of customary international law.”¹³ Her primary example of a provision that has become obligatory through state practice is “the obligation to co-operate in respect of high seas fisheries through the medium of RFMOs or other co-operative arrangements.”¹⁴

**The Duty to Cooperate.** The guiding principle that governs the 1995 Agreement is the duty to cooperate. This core concept is given specific new meaning, and the coastal nations and distant-water fishing nations of each region are now required to share data and manage the straddling fisheries together. Article 7(2) requires that "[c]onservation and management measures established for the high seas and those adopted for areas under national jurisdiction shall be compatible in order to ensure conservation and management of the straddling fish stocks and highly migratory fish stocks in their entirety" (emphasis added). This duty gives the coastal state a leadership role in determining the allowable catch to be taken from a stock that is found both within and outside its exclusive economic zone, as evidenced by the requirement in Article 7(2)(a) that contracting parties "take into account" the conservation measures established by the coastal state under Article 61 of the Law of the Sea Convention for its EEZ "and ensure that measures established in respect of such stocks for the high seas do not undermine the effectiveness of such measures." This polite diplomatic language indicates clearly that catch

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¹⁴ Id.
rates outside a 200-nautical-mile exclusive economic zone cannot differ significantly from those within the EEZ.

**The Duty to Work Through an Existing or New Fisheries Organization.** The 1995 Agreement requires coastal and island nations to work together with distant-water fishing nations in an organization or arrangement to manage shared fisheries. Article 8(3) addresses this issue, and it is quoted in full here because its somewhat ambiguous language requires close examination:

Where a subregional or regional fisheries management organization or arrangement has the competence to establish conservation and management measures for particular straddling fish stocks or highly migratory fish stocks, *States fishing for the stocks on the high seas and relevant coastal States shall give effect to their duty to cooperate* by becoming a member of such an organization or a participant in such an arrangement, or by agreeing to apply the conservation and management measures established by such an organization or arrangement. *States having a real interest in the fisheries concerned may become members of such organizations or participants in such arrangement. The terms of participation of such organizations or arrangements shall not preclude such States from membership or participation;* nor shall they be applied in a manner which discriminates against any State or group of States having a real interest in the fisheries concerned. (Emphasis added.)

It is hard to read this language without concluding that the coastal and island nations must cooperate with the distant-water fishing nations fishing in adjacent high seas areas either by
allowing them into an existing fishery management organization or by creating a new one that all can join. All states "having a real interest" in the shared fishery stock must be allowed into the organization. Only those states that join a regional organization or agree to observe its management regulations can fish in a regional fishery (Article 8(4); and see Article 17(1)).

Article 13 requires existing fisheries management organizations to "improve their effectiveness in establishing and implementing conservation and management measures...."

Article 11 addresses the difficult question whether new distant-water fishing nations must be allowed into such an organization once established. Do the nations that have established fishing activities in the region have to allow new entrants? The language of Article 11 does not give a clear answer to this question, but it seems to indicate that some new entrants could be excluded if the current fishing nations have developed a dependency on the shared fish stock in question. Furthermore, developing nations from the region would appear to have a greater right to enter the fishery than would developed nations from outside the region. “Article 25(1)(b), implies some degree of preference for developing countries that are new members, by requiring states to ‘facilitate access [to high seas fisheries]...subject to articles 5 and 11.’”15 The 1995 Agreement emphasizes the need to cooperate, and it requires the coastal and island nations to cooperate with the distant-water fishing nations operating in the adjacent high-seas areas to the same extent that the distant-water fishing nations must cooperate with the coastal and island

nations.

**The Precautionary Approach.** The "precautionary principle" has gained almost universal acceptance during the past decade as the basic rule that should govern activities that affect the ocean environment.\(^\text{16}\) This principle requires users of the ocean to exercise caution by undertaking relevant research, developing nonpolluting technologies, and avoiding activities that present uncertain risks to the marine ecosystem. It requires policy makers to be alert to risks of environmental damage, and the "greater the possible harm, the more rigorous the requirements of alertness, precaution and effort."\(^\text{17}\) It rejects the notion that the oceans have an infinite or even a measurable ability to assimilate wastes or support living resources, and it instead recognizes that our knowledge about the ocean's ecosystems may remain incomplete and that policy makers must err on the side of protecting the environment. It certainly means at a minimum that a thorough evaluation of the environmental impacts must precede actions that may affect the marine environment. All agree that it requires a vigorous pursuit of a research agenda in order to overcome the uncertainties that exist.

Some commentators have explained the precautionary principle by emphasizing that it shifts the burden of proof: "[W]hen scientific information is in doubt, the party that wishes to

\(^\text{16}\) See generally Jon M. Van Dyke, *The Evolution and International Acceptance of the Precautionary Principle*, in *BRINGING NEW LAW TO OCEAN WATERS* 357-79 (David D. Caron and Harry N. Scheiber eds. 2004).


develop a new project or change the existing system has the burden of demonstrating that the proposed changes will not produce unacceptable adverse impacts on existing resources and species." Others have suggested that the principle has an even more dynamic element, namely that it requires all users of the ocean commons to develop alternative nonpolluting or nonburdensome technologies.

The precautionary principle is given center stage as the primary basis for decisionmaking in the new Straddling and Migratory Stocks Agreement. Article 5(c) of the Straddling and Migratory Fish Stocks Agreement lists the “precautionary approach” among the principles that govern conservation and management of shared fish stocks, and Article 6 elaborates on this requirement in some detail, focusing on data collection and monitoring. States are required to improve their data collection, and to share their information widely with others. When "information is uncertain, unreliable or inadequate," states must be "more cautious" (Article 6(2)) and they must take "uncertainties" into account when establishing management goals (Article 6(3)(c)). Species thought to be under stress shall be subjected to "enhanced monitoring in order to review their status and the efficacy of conservation and management measures" (Article 6(5)). If "new or exploratory fisheries" are opened, precautionary conservation measures must be established "as soon as possible" (Article 6(6)).

Then, in Annex II, the Agreement identifies a specific procedure that must be used to control exploitation and monitor the effects of the management plan. For each harvested species, a “conservation” or “limit” reference point as well as a “management” or “target” reference must

18 FREEDOM FOR THE SEAS IN THE 21ST CENTURY, supra note 1, at 477.
be determined. If stock populations go below the agreed-upon conservation/limit reference point, then “conservation and management action should be initiated to facilitate stock recovery” (Annex II(5)). Overfished stocks must be managed to ensure that they can recover to the level at which they can produce the maximum sustainable yield (Annex II(7)). The continued use of the maximum sustainable yield approach indicates that the Agreement has not broken free from the approaches that have led to the rapid decline in the world’s fisheries, but the hope is that the conservation/limit reference points will lead to early warnings of trouble that will be taken more seriously.

**The Duty to Assess and to Collect and Share Data.** Article 5(d) reaffirms the duty to "assess the impacts of fishing, other human activities and environmental factors" of stocks, and Articles 14 and 18(3)(e) explain the data collection requirements necessary to facilitate such assessments. Article 14 requires contracting parties to require fishing vessels flying their flags to collect data "in sufficient detail to facilitate effective stock assessment" (Article 14(1)(b)). Annex I then explains the specific information that must be collected, which includes the amount of fish caught by species, the amount of fish discarded, the types of fishing methods used, and the locations of the fishing vessels (Annex I, art. 3(1)). In order to permit stock assessment, each nation must also provide to the regional fishery organization data on the size, weight, length, age, and distribution of its catch, plus "other relevant research, including surveys of abundance, 19 Fishing to attain the maximum sustainable yield inevitably means reducing the abundance of a stock, sometimes by one-half or two-thirds. This reduction can threaten the stock in unforeseeable ways and also will impact on other species in the ecosystem.
biomass surveys, hydro-acoustic surveys, research on environmental factors affecting stock abundance, and oceanographic and ecological studies" (Annex I, art. 3(2)). These requirements, if taken seriously, will revolutionize the fishing industry, where the competitive nature of the quest for fish has encouraged each nation to hide its activities from others to the extent possible. The data collected "must be shared with other flag States and relevant coastal States through appropriate subregional or regional fisheries management organizations or arrangements" in a "timely manner," although the "confidentiality of nonaggregated data" should be maintained (Annex I, art. 7). Decisionmaking at regional fishery organizations must now be "transparent" under Article 12, and international and nongovernmental organizations must be allowed to participate in meetings and to observe the basis for decisions.

**The Methods of Enforcement.** Article 18 further requires contracting parties to establish "national inspection schemes," "national observer programmes," and "vessel monitoring systems, including, as appropriate, satellite transmitter systems" to manage their flag fishing vessels with some rigor. Article 21(1) gives these requirements teeth by authorizing the ships of a nation that is party to a regional fisheries agreement to board and inspect on the high seas any ship flying the flag of any other nation that is a party to the same agreement.\(^{20}\) If the boarded vessel is found to have committed a "serious violation," it can be brought into the "nearest appropriate port" for further inspection (Article 21(8)). The term "serious violation" is

\(^{20}\) Nations already have the power to board, inspect, and arrest vessels violating laws established to "control and manage the living resources in the exclusive economic zone." Law of the Sea Convention, *supra* note 8, art. 73(1).
defined in Article 21(11) to include using prohibited fishing gear, having improper markings or identification, fishing without a license or in violation of an established quota, and failing to maintain accurate records or tampering with evidence needed for an investigation.

**Dispute-Resolution.** Part VIII of the Agreement requires contracting parties to settle their disputes peacefully, and extends the dispute-resolution mechanisms of the Law of the Sea Convention to disputes arising under this new Agreement. These procedures are complicated and somewhat untested, but should provide flexible and sophisticated mechanisms to allow nations to resolve their differences in an orderly fashion.

**Recognition of the Special Needs of Developing Nations.** The 1995 Agreement recognizes in Articles 24-26 that the burden of conservation may affect the coastal fisheries that many communities rely upon for subsistence. These articles state that developing states should not be required to shoulder a “disproportionate burden of the conservation action” (Art. 24(2)(c)), and they call for increased technical and financial aid to developing countries to allow them to meet their duties of data collection and dissemination.

**The 2000 Honolulu Convention**

The Pacific Island and distant-water fishing nations with an interest in the Pacific met every six months for several years in Honolulu in the late 1990s to draft an important new treaty governing the migratory fish stocks of the Pacific Ocean. Formally called “The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean” noted and signed in Honolulu in September 2000, this treaty creates the regional ________

21 The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the
organization anticipated by Article 64 of the 1982 Law of the Sea Convention\textsuperscript{22} and by the 1995 Straddling and Migratory Stocks Agreement.\textsuperscript{23}

The 2000 Honolulu Convention is breathtakingly innovative in a number of significant respects. It is huge in its geographical scope, covering much of the vast Pacific Ocean and governing territorial seas and exclusive economic zones as well as high seas areas. It creates a Commission with authority to set catch limits and allocate catch quotas to fishing nations both within and outside the exclusive economic zones of coastal and island nations. The Commission can also regulate vessel types, fish size, and gear, and can establish area and time limitations. Decisionmaking is by consensus for the central issues – such as allocation of fish to contracting parties -- and by chambered voting on others, requiring a majority of support from the two chambers – one consisting of the ten distant-water-fishing nations and the other consisting of the 16 island nations -- thus carefully protecting both groups. Decisions of the Commission can be reviewed by an arbitral review panel to ensure consistency and protect against discrimination.

Western and Central Pacific Ocean, Honolulu, Sept. 4, 2000, 

\textsuperscript{22} Law of the Sea Convention, \textit{supra} note 8, art. 64; see generally Jon Van Dyke and Susan Heftel, \textit{Tuna Management in the Pacific: An Analysis of the South Pacific Forum Fisheries Agency}, 3 University of Hawaii La Review 1, 11-17 (1981).

\textsuperscript{23} 1995 Straddling and Migratory Stocks Agreement, \textit{supra} note 11.
This new treaty requires fishing of migratory species in the high seas to be compatible with the regulations that apply within adjacent exclusive economic zones. It relies on the precautionary approach as its basic foundation throughout. It reinforces the importance of the duty to cooperate. It allows Taiwan to participate in decisionmaking (as “Chinese Taipei”), it allows nonselfgoverning territories to participate (pursuant to rules to be adopted), and nongovernmental organizations can also participate in appropriate ways. Compliance will be through flag-state and port-state enforcement, boarding and inspection rights, obligatory transponders on all high-seas fisheries, and regional observers on the vessels.

The final negotiating session was held in Honolulu from August 30 to September 5, 2000, and a treaty was signed by most of the negotiating parties, but China, France, and Tonga abstained and Japan and South Korea refused to sign the agreement. The FFA members worked hard during the three-year negotiating period to ensure that the convention area was as large as possible, that decisions could be made without unanimous agreement, that developing countries would receive financial assistance to carry out their obligations under the treaty, that

24 China abstained because of its concern about Taiwan’s classification as a “fishing entity,” with some rights to participate separately in decisionmaking, and France abstained because it wanted the French islands in the Pacific to have separate status in the Commission that is to be established.

25 Japan and South Korea stated that they view the treaty as too restrictive of their historic fishing practices in the high seas. These countries have, however, been participating in some of the subsequent meetings and are expected eventually to ratify the Convention.
the treaty could come into force even if the distant-water fishing nations did not ratify it, and that a vessel monitoring system would become mandatory for all vessels. Although not all the FFA positions were achieved to extent desired, the final version of the treaty was signed in September 2000 by all the FFA members except Tonga. Since then, Korea, Japan, and China have ratified the Honolulu Convention, along with all other countries involved in the negotiations except the United States and Indonesia, and the contracting parties have been meeting regularly to establish the institutions created by the Convention and to start making the difficult decisions required to implement it. The United States is expected to ratify the Convention. President Bush recommended ratification in May 2005, and the Senate Foreign

26 Among the many compromises, for instance, was the decisionmaking provision, which established “chambers” consisting of the FFA and the non-FFA members of the Commission, and provided that each chamber would need to support a decision by a three-fourths majority, with the proviso that no proposal could be defeated by fewer than three votes in either chamber.


Relations Committee held a hearing on it on September 29, 2005. Pending ratification, the United States has attended meetings in recent months as a “cooperating non-member.”

**Allocation Options**

Everyone who has ventured an opinion about the challenge of allocating fish agrees that such allocations should be both “equitable” and “efficient,” but giving meaning to those terms remains elusive. One typical well-meaning but vague pronouncement on this topic provides the following language:

> *Equity in the allocation of both rights and obligations.* Regimes that balance the competing interests of all participants are likely to be perceived as the most legitimate, which should in turn promote higher levels of compliance with agreed fishing rules. Among the many balances to be found are: those that have historically participated vs. new entrants; coastal States vs. distant water fishing States; developed States vs. developing States.

**Conservation Is Paramount.** Michael W. Lodge and Satya N. Nandan have made the important point that “allocation rights, both in the EEZ and on the high seas, are subordinate to the obligation to conserve.” At the present time, they note, “neither UNFSA, nor the decision rules of many existing RFMOs, provide mechanisms for allocation that balance conservation interests with the economic and social interests of states. In fact, within many RFMOs, negotiated criteria for catch allocations are often based on the notion of historical catch, which is

29 151 CONG. REC. S D990 (daily ed. Sept. 29, 2005).


a powerful incentive to indulge in a race to fish.”\(^\text{32}\) And, they add, the problem of overfishing may be exacerbated by “adding developing state fishing capacity to existing overcapacity, especially where this operates simply as a mechanism to support reflagging and transfer of effort by distant water fishing nations (DWFNs).”\(^\text{33}\)

Professor Ted L. McDorman has noted that “the setting of the total allowable catch (TAC)” and “quota allocation decisions...are inevitably the most controversial” for regional fishery management organizations (RFMOs).\(^\text{34}\) He suggests looking to the considerations listed in Article 11 of the Straddling and Migratory Fish Stocks Agreement governing the participation of new members of fishery organizations for guidance regarding allocation rights within the fishery – “the status of the stocks and existing fishing efforts; existing fishing patterns (historic fishing activity); economic need and coastal state dependence; and contribution to conservation.”\(^\text{35}\) He stresses that consensus is important to ensure support for the allocation decisions, and suggest that to promote consensus “in years, and for stocks where consensus cannot be reached, that the quotas for each member decline by a pre-set amount (e.g. 20%) for

\(\text{32 Id.}\)

\(\text{33 Id.}\)

\(\text{34 Ted L. McDorman, Implementing Existing Tools: Turning Words Into Actions – Decision-Making Processes of Regional Fisheries Management Organizations (RFMOs), 20}\)

\(\text{INTERNATIONAL JOURNAL OF MARINE AND COASTAL LAW 423, 425 (2005).}\)

\(\text{35 Id. at 438.}\)
each year non-consensus prevails.”

“Equity” is a complicated and multifaceted concept, with different applications in different contexts. It certainly includes the concept of being “fair,” but just as certainly it does not inevitably mean that everyone should receive an equal amount. In the maritime boundary context, Articles 74 and 83 of the Law of the Sea Convention require opposite and adjacent states to reach an “equitable solution,” language was chosen instead of phrasing that would have stated that boundaries should be drawn along the “median” or “equidistance” line separating the land areas of the countries. The concept of an “equitable solution” in the boundary context has generated a series of specific rules, as discussed below, including, for instance, that the boundary that would exist if the equidistance line were utilized should be adjusted in light of the length of the coastlines of the competing countries, because the coastlines provide some rough indication of the relationship between the country and the adjacent waters.

**Common But Differentiated Rights and Responsibilities.** Both the Law of the Sea Convention and the Straddling and Migratory Fish Stocks Agreement contain provisions recognizing that countries have common but differentiated responsibilities and rights. These

36 *Id.* at 440 (noting that the quota reductions “can be justified on the basis of precaution” and that this procedure would provide “an important incentive to agree on allocations”).

37 *See infra* text at notes –.

treaties recognize that the formal equality of states does not inevitably mean that all states are similarly situated, because some have better means to protect the global environment and to assist other states and some have stronger claims to shared resources than others. This idea was identified in Principle 23 of the 1972 Stockholm Declaration,\(^39\) which explained that “it will be essential in all cases to consider .. the extent of applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for developing countries.” Principle 7 of the 1992 Rio Declaration\(^40\) went on to say more directly that: "In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities." This principle of “common but differentiated responsibility” has two prominent elements — asymmetry of obligations and financial support for developing countries.

The Law of the Sea Convention recognizes these different responsibilities in several articles, including, for instance, Article 207 on land-based pollution, which refers to the economic capabilities of developing states when articulating the responsibility to deal with this problem.\(^41\) Other provisions in the Law of the Sea Convention providing special preferences for


\(^{41}\) Law of the Sea Convention, *supra* note 8, art. 207(4) (emphasis added):
developing and otherwise disadvantaged countries include:

* Article 62(2) & (3) – granting developing countries preferential rights to the surplus stocks in the EEZs of other coastal states in their region.

* Articles 69 & 70 – giving developing landlocked and geographically disadvantaged states preferential rights to the surplus stocks in EEZs of coastal states in their region.

* Article 82 – exempting developing states from making payments from continental shelf resources beyond 200 nautical miles and have preferential rights to payments made by other states.

* Article 119 – apparently giving developing countries some preferential rights to the living resources of the high seas.

* Article 194(1) – stating states must prevent, reduce, and control pollution of the marine environment “using for this purpose the best practicable means at their disposal and in accordance with their capabilities” (emphasis added).

* Article 199 – requiring states to develop contingency plans for responding to pollution incidents “in accordance with their capabilities” (emphasis added).

* Articles 202-03 – stating that developing states are entitled to training, equipment, and

States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development.…
financial assistance from developed states and international organizations with regard to the prevention, reduction, and control of marine pollution.

* Article 206 – explaining that the duty to assess environmental impacts of planned activities extends “as far as practicable” (emphasis added).

* Articles 266-69 – stating that developing countries are entitled to receive “marine science and marine technology on fair and reasonable terms and conditions.”

The 1995 Straddling and Migratory Fish Stocks Agreement also contains a number of provisions recognizing the special rights of developing countries:

* The Preamble recognizes “the need for specific assistance, including financial, scientific and technological assistance, in order that developing States can participate effectively in the conservation, management and sustainable use of straddling fish stocks and highly migratory fish stocks…”

* Article 3(3) says that “States shall give due consideration to the respective capacities of developing States to apply articles 5, 6 and 7 within areas under national jurisdiction and their need for assistance as provided for in this Agreement” (emphasis added).

* Article 11(f) gives developing states a preference to enter into a fishery and into a fishery organization as a new member.

* Article 24 addresses the financial needs of developing countries:

1. States shall give full recognition to the special requirements of developing States in relation to conservation and management of straddling fish stocks and highly migratory fish stocks and development of fisheries for such stocks. To this end, States shall, either directly or through the United Nations

42 Straddling and Migratory Fish Stocks Agreement, supra note 11.
Development Programme, the Food and Agriculture Organization of the United Nations and other specialized agencies, the Global Environment Facility, the Commission on Sustainable Development and other appropriate international and regional organizations and bodies, provide assistance to developing States….

* Article 25 provides some more specific language regarding these obligations:

1. States shall cooperate, either directly or through subregional, regional or global organizations:
   
   (a) to enhance the ability of developing States, in particular the least-developed among them and small island developing States, to conserve and manage straddling fish stocks and highly migratory fish stocks and to develop their own fisheries for such stocks;
   
   (b) to assist developing States, in particular the least-developed among them and small island developing States, to enable them to participate in high seas fisheries for such stocks, including facilitating access to such fisheries subject to articles 5 and 11; and
   
   (c) to facilitate the participation of developing States in subregional and regional fisheries management organizations and arrangements….

* Funding is addressed in Article 26:

1. States shall cooperate to establish special funds to assist developing States in the implementation of this Agreement, including assisting developing States to meet the costs involved in any proceedings for the settlement of disputes to which they may be parties.

2. States and international organizations should assist developing States in establishing new subregional or regional fisheries management organizations or arrangements, or in strengthening existing organizations or arrangements, for the conservation and management of straddling fish stocks and highly migratory fish stocks.

From these many provisions it should be clear that one element of any “equitable” approach to allocation is that developing countries must receive a share linked to their greater needs and must also receive financial assistance so that they can take proper advantage of the fish in their region.

**Should Allocation Be Based on Population? Or On a State’s “Dependence” on Fish for Food Security?** If the focus remains on “equity,” then obviously some attention to the numbers of mouths that need to be fed is relevant to any allocation decision. Some may argue
that a fish-per-capita allocation system, perhaps with some modifications for unique “equitable” considerations, makes sense and offers some elegant simplicity. Others would point out that some communities “depend” on fish or enjoy eating fish more than others, and would argue historical fishing practices should be recognized as the baseline from which allocations should be made. Still others might suggest that utilizing historical fishing practices will inevitably reward the more developed countries, which have been able to finance large fishing operations, and will once again disadvantage developing countries. Basing allocations on historical fishing activities will tend to reward those countries that have overcapitalized and subsidized their fishing fleets, thus giving benefits for activities that have distorted the market and which would be punished in other economic sectors.

**The Importance of “Contiguity” or Geographical Proximity.** A system focused on population would allow the populated nations to come into all regions with priorities to harvest the fish, and would ignore the link between the residents of the area and the nearby fish. Any equitable system of allocation will have to recognize the importance of geographical proximity, or contiguity, to the allocation choices that must be made. Especially since regional fishery management organizations frequently have responsibilities over fish within exclusive economic zones as well as fish on the high seas, the allocation decisions made by the organizations must recognize the “sovereign rights” that states have to the fish in their EEZs, which gives them a substantial priority in any allocation scheme. In the Pacific, the Pacific Island communities must have a priority to the fish in their region because of their geographical proximity and because

43 See supra text at note 32, for the quote on this topic from Lodge and Nandan.
they are developing nations that are entitled to assistance and priorities under both the Law of the Sea Convention and the Straddling and Migratory Fish Stocks Agreement.

**What Other “Equitable” Criteria Are Relevant?** Other ideas for equitable criteria to apply to allocation decisions can be gleaned from the criteria developed in maritime boundary delimitation adjudications, from criteria relevant to disputes over sovereignty of remote areas, and from the Rio Principles. In maritime boundary disputes, members of decisionmaking tribunals usually start with an equidistance or median line, but then adjust it to correspond to “special circumstances” and equitable considerations.44 The factor that has been used most consistently to adjust this line has been the proportionality of the length of the coastlines of the disputing states.45 This criterion has been preferred over candidates such as coastal population and economic activity in the coastal waters, because it is a stable factor that is unlikely to change over time. Another element of these boundary decisions that has been relatively consistent

44 See generally Van Dyke, Aegean Sea Dispute, supra note 38, at 398-401.

during the past four decades has been that the decisions tend to reject an “all-or-nothing”
approach and to allocate each state at least some maritime space, and thus to find a solution that
each country can live with. Decisionmakers tend to recognize that even geographically
disadvantaged countries have rights to maritime resources, and as sovereign states have the right
"to participate in international arrangements as an equal." Maritime delimitations thus tend to
recognize the vital security interests of each nation, and to craft a solution that protects these
interests. Food security is certainly a crucial element of any state’s national security interests,
and access to food sources is important to every community. The case where this interest was
recognized most directly is the Jan Mayen Case, where Norway (which had sovereignty over Jan
Mayen Island) was allocated a maritime zone sufficient to give it equitable access to the
important capelin fishery that lies between Jan Mayen and Greenland.

If we look at the criteria that have been applied to resolve sovereignty disputes over
remote land territory, we find tribunals focusing on links between the claimants and the territory

46 Charney, supra note 45, at 249.

47 This principle was also recognized in the Jan Mayen Case, supra note 45, where the Court
refused to allow the maritime boundary to be too close to Jan Mayen island, and it can be found
in the background of all the recent decisions. The refusal of tribunals to adopt an "all-or-nothing"
solution in any of these cases illustrates their sensitivity to the need to protect the vital security
interests of each nation.

48 Jan Mayen Case, supra note 45.
expressed through “discovery” and “effective occupation,” focusing in particular on recent displays of sovereignty. “Contiguity” is sometimes discounted, but has played a role in other situations.

The judicial and arbitral decisions regarding sovereignty disputes over islands since World War II have focused more on which country has exercised actual governmental control over the feature during the previous century, than on earlier historical records.49 The first major decision by the International Court of Justice regarding ownership of an isolated uninhabited island feature was the decision in the Minquiers and Ecrehos Case,50 where the Court explained that: “What is of decisive importance, in the opinion of the Court, is not indirect presumptions deduced from events in the Middle Ages, but the evidence which relates directly to the possession of the Ecrehos and Minquiers groups.”51 This view was followed in the Gulf of Fonseca Case,52 where the court focused

1 See generally Mark J. Valencia, Jon M. Van Dyke, and Noel A. Ludwig, Sharing the Resources of the South China Sea 17-19 (1997).

50 Minquiers and Ecrehos Case (France/United Kingdom), 1953 I.C.J. 47.

51 Id. at 57 (emphasis added).

52 Land, Island and Maritime Frontier Dispute (El Salvador/Honduras; Nicaragua intervening), 1992 I.C.J. 351 [hereafter cited as Gulf of Fonseca Case].
on evidence of actual recent occupation and acquiescence by other countries to determine title to disputed islets, and in the decision in the Eritrea-Yemen Arbitration,\(^53\) where the tribunal relied explicitly on the Minquiers and Ecrehos judgment for the proposition that it is the relatively recent history of use and possession of the islets that is most instructive in determining sovereignty and that the historical-title claims offered by each side were not ultimately helpful in resolving the dispute: “The modern international law of acquisition (or attribution) of territory generally requires that there be: an intentional display of power and authority over the territory, by the exercise of jurisdiction and state functions, on a continuous and peaceful basis.” \(^54\)

This very same approach was utilized by the Court in its recent decision resolving a dispute between Malaysia and Indonesia over two tiny islets – Ligitan and Sipadan.\(^55\) The larger of the islets (Sipadan) is 0.13 square kilometers in size.\(^56\) Neither has been inhabited historically, but both have lighthouses on them and Sipadan has recently been “developed into a


\(^{54}\) Id., 1998 Award, para. 239.


\(^{56}\) Id. para. 14.
tourist resort for scuba-diving.” The Court first addressed arguments based on earlier treaties, maps, and succession, but found that they did not establish any clear sovereignty. It then looked at the “effectivites” – or actual examples of exercises of sovereignty over the islets, and explained that it would look at exercises of sovereignty even if they did “not co-exist with any legal title.” Indonesia claimed title based on various naval exercises in the area conducted by themselves and previously by their colonial power (the Netherlands), but Malaysia prevailed based on the governmental actions of its colonial power (the United Kingdom) exercising control over turtle egg collection and constructing lighthouses on both islets.

Contiguity, or geographical proximity, has not always played a decisive role in adjudications, but it sometimes has been a significant factor. Arbitrator Max Huber rejected contiguity as a basis for a claim of title in the Palmas Arbitration, and a number of countries

57 Id.
58 Id. paras. 58, 72, 80, 92, 94, 96, 114, and 124.
60 Id. para. 132.
61 The Arbitral Award Rendered in Conformity with the Special Agreement Concluded on January 23, 1925 Between the United States
include land areas quite distant from other parts of the country. Nonetheless a land area closely linked to another land area, and utilized by residents of the adjacent area, may “belong” to that adjacent area as a matter of logic, common sense, and historical practice. Some islets are viewed as “dependent” on other islands, and some groups of islands have historically been viewed as units; in these cases it would not be logical to divide such islands between two different sovereigns. Even Arbitrator Huber acknowledged that “[a]s regards groups of islands, it is possible that a group may under certain circumstances be regarded as in law a unit, and that the

of America and the Netherlands Relating to the Arbitration of Differences Respecting Sovereignty over the Island of Palmas (or Miangas), 2 R.I.A.A. 829 (April 4, 1928), reprinted in 22 AMERICAN JOURNAL OF INTERNATIONAL LAW 867, 893-94 (1928) [hereafter cited as Palmas Arbitration]. Palmas is an isolated island, but when one looks at a map it seems to be closer to the Philippines than Indonesia because it is 48 miles from the large Philippine island of Mindanao and the Indonesian islands it is near (it is 51 miles from Nanusa) are small and seem isolated themselves. Arbitrator Huber wrote that: “Although states have in certain circumstances maintained that islands relatively close to their shores belonged to them in virtue of their geographical situation, it is impossible to show the existence of a rule of positive international law to the effect that islands situated outside territorial waters should belong to a state from the mere fact that its territory forms the terra firma (nearest continent or island of considerable size).” Id. at 893. Any such rule, he explained, would be “wholly lacking in precision and would in its application lead to arbitrary results.” Id.
fate of the principal part may involve the rest.” The International Court of Justice viewed, for instance, the Minquiers group as a "dependency" of the Channel islands (Jersey and Guernsey) and thus ruled that they should be subject to the same sovereign authority. In the Gulf of Fonseca Case, the ICJ Chamber concluded that Meanguerita was an "appendage" to or "dependency" of Meanguera, and thus should be awarded to El Salvador along with its larger neighbor.

The recent development of the regimes of the continental shelf and the exclusive economic zone, as well as the extension of the territorial sea from three to 12 nautical miles in the 1982 Law of the Sea Convention, are all to some extent based on a recognition of the importance of “contiguity.” Another clear example of a tribunal’s reliance upon concepts of contiguity can be found in the 1998-99 Eritrea-Yemen Arbitration. The tribunal

62 Id., 22 AMERICAN JOURNAL OF INTERNATIONAL Law at 894; 2 UNRIAA at 855.

63 Minquiers and Ecrehos Case (France/United Kingdom), 1953 I.C.J. 47, 71.

64 Gulf of Fonseca Case, supra note 52, 1992 ICJ 351,579, para. 368.

65 See, e.g., H. Lauterpacht, Sovereignty over Submarine Areas, 27 BRITISH YEAR BOOK OF INTERNATIONAL LAW 428 (1950).

awarded to Yemen the lone island of Jabal al-Tayr and the al-Zubayr group, because Yemen’s activities on these barren islands were greater, and because they are located on the Yemen side of the median line between their uncontested land territories. The tribunal recognized the relevance of geographical proximity or contiguity, utilizing the “presumption that any islands off one of the coasts may be thought to belong by appurtenance to that coast unless the State on the opposite coast has been able to demonstrate a clearly better title.” The Mohabbakahs and the Haycock Islands were thus awarded to Eritrea because they were mostly within 12 nautical miles of the Eritrean coast.

The Rio Principles are another important source for ideas regarding relevant equitable principles governing the allocation challenge. Perhaps the most relevant is Principle 4, which says that “In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.” This confirms the point made recently by Lodge and Nandan that conservation values must remain


68 Id., para. 458.


70 See supra text at notes 31-33.
paramount in any allocation regime. The oceans and their resources are the common heritage of humankind, and public trust values must be applied to any system dividing these resources.  

**How Should States Be Rewarded for Good Behaviour?**

Careful management of fish stocks is expensive and challenging, and countries that make financial sacrifices to monitor and maintain threatened fish stocks should receive some reward for their actions. This principle forms the basis of Article 66 of the Law of the Sea Convention, which says that “[s]tates in whose rivers anadromous stocks originate shall have the primary interest in and responsibility for such stocks.” Because the spawning habitat of salmon and other anadromous species must be maintained carefully to enable them to reproduce successfully, it has been recognized that the countries that maintain their river systems to permit successful spawning should be able to reap the bounty of the salmon harvest. This principle means that even when the salmon are in the high seas, they cannot be caught without explicit permission of the country of origin. If we extrapolate from this principle, we should find ways of rewarding countries that invest in the monitoring and maintenance of fish stocks by giving them allocation bonuses.

**Should States Be Punished for Misbehaving?**

**Selfish and Destructive Fishing Practices.** Another aspect of “equity” is that countries must be held accountable for taking more than their share and engaging in destructive fishing practices. The highly destructive high seas bottom trawling, for instance, is an unsustainable

practice that does “major damage” to biodiversity and destroys “resources that should be available to all states.”

Other examples of selfish and unacceptable activities include providing a flag to vessels that engage in improper fishing activities and distorting the market by subsidizing fishing vessels.

Controlling IUU Fishing. Obviously, any solution to the overfishing of high seas fisheries must involve true cooperation and transparency, which must include bringing the practice of “illegal, unregulated, and unreported” (IUU) fishing under control. This effort will require revisions to the flag-of-convenience system that allows many fishing vessels to operate with limited regulation. It will also require use of modern satellite-based vessel-monitoring-system (VMS) technology, on-board independent observers, and detailed boarding and inspection programs to increase monitoring and thus permit active enforcement of regulations.

Flags of Convenience. The problem of IUU fishing is directly related to the extensive use of flags of convenience:

there has to be a collective effort to deal with the related and urgent problems of IUU fishing and free riders. The problem is that, despite the advances made by the 1995 Agreement and the various measures adopted through the FAO, not all flag states are able or willing to exercise effectively their responsibilities for fishing vessels flying their flags on the high seas. Urgent action is needed to address this problem. It is a matter of great concern that seven out of the 11 cases before the International Tribunal for the Law of the Sea related to the activities of fishing vessels flying so-called flags of convenience, or flags or non-

72 Kimball, supra note 2, at 273.

73 See Balton and Zbicz, supra note 30, at 249-50.
Numerous strategies have been proposed to deal with the flag-of-convenience conundrum, such as “co-ordinating global and regional high seas vessel registers, vessel monitoring systems, port state measures, the use of trade measures and so on,” but the essential answer is that states must “take full responsibility for the activities of their nationals, regardless of the flag of the fishing vessel concerned.”

**Evolving into a Rights-Based System**

The allocation decisions that will be made by regional fishery management organizations in the next few years are extremely important, because it is almost inevitable that the allocation schemes will evolve into something akin to a “rights-based” system, and that countries will view their allocation quotas as a vested property right that they are entitled to maintain in future years. Professor McDorman seemed to recognize this phenomenon, when he proposed that countries’ quotas from last year be automatically cut 20% for the current year if they cannot reach a consensus on the allocation for the current year. In other words, he appeared to accept the idea that last year’s quota would be the starting point for any discussion about allocation for this year and coming years. Each allocation will thus have importance not just for the current year, but


75 *Id.* at 308.

76 McDorman, *supra* note 34, at 440.
because it will set a baseline for future years, and states will seek to maintain and increase their allocation. States will make investments in reliance on the allocations given to them, and they will insist that they are entitled to continue fishing at the rate that they have fished in previous years.

**Summary and Conclusion.**

The decisions made by the regional fishery management organizations allocating fish must be “equitable” and “efficient.” Translating such vague terms into actionable criteria is one of the major challenges of our generation. The analysis presented above suggests that these criteria must include the following elements:

* Conservation values must be paramount and the precautionary approach must be utilized to ensure that fish stocks remain bountiful for future generations. Countries must share data regarding their fishing activities and must support scientific research to understand the life cycle of each species and its relationships with other species in its ecosystem.

* Developing countries must be given priorities in the allocation of stocks and must be given assistance so that they can utilize their allocations effectively.

* Geographical proximity to the fish stocks must be recognized as an important element of any allocation scheme. When the stocks straddle EEZs of states, those states have a particularly strong claim to a substantial share of the allocation quota, but even for stocks outside the EEZ, the countries in the region should have a priority over those outside the region.

* Countries that make expenditures to monitor and maintain the fish stocks should be rewarded with enhanced allocations.

* Those countries that misbehave by abusing the flag-of-convenience system, by
permitting IUU fishing, by allowing their vessels to engage in destructive high-seas bottom
trawling, and by subsidizing their fishing industry should be punished by having their allocations reduced.

* The population of a country, its historical dependence on the fisheries in question, and its historical consumption of sea food and need for it as “food security” are also relevant considerations, although of less importance than those listed above.

Decisions must, of course, be made through a transparent process, and by consensus whenever possible. The process of allocation will be one of trial-and-error in the early years, and, because we still know so little about many species and many ocean area, precaution must always guide the allocations.