



THE UN CONVENTION ON THE LAW OF THE SEA: IMPACTS ON TUNA REGULATION

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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IMPACTS OF THE UN CONVENTION ON THE LAW OF THE SEA
ON TUNA REGULATION

by

W. T. Burke
Professor of Law
University of Washington
Seattle, Washington
FAO Consultant

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FOREWORD

Now that the text of a new Convention has been adopted by the Third United Nations Conference on the Law of the Sea, the spotlight turns from the Conference negotiations to the problems of interpretation and implementation of the new Convention once it comes into force. The present paper, by a well-known American lawyer, presents one view of the possible impacts of the New Convention on tuna management, with particular reference to the implications of Article 64. The paper was originally commissioned under the FAO Fisheries Law Advisory Programme as a background paper for the South Pacific Forum Fisheries Agency (FFA) Workshop on Fisheries Access Rights Negotiations in Port Vila in September 1982 and for the FAO Regional Seminar on Monitoring, Control and Surveillance of Fisheries in Exclusive Economic Zones in Mahé, Seychelles, also in September 1982. The decision was taken to republish the paper in the Legislative Studies series in view of its general interest and applicability to tuna fisheries throughout the world.

The Fisheries Law Advisory Programme is an activity of the FAO Comprehensive Programme of Assistance in the Development and Management of Fisheries in Economic Zones (the so-called FAO EEZ Programme) and is financed by Norwegian funds-in-trust. The Programme has the following objectives:

- (a) to assist Governments in the formulation of fisheries legislation and in the drawing up of joint venture and bilateral agreements;
- (b) to provide training to Government lawyers in legal problems of fisheries management and development; and
- (c) to facilitate the harmonization of fisheries legislation on a regional and subregional basis.

Dante A. Caponera
Chief Legislation Branch
Legal Office

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IMPACTS OF THE UN CONVENTION ON THE LAW OF THE SEA ON TUNA REGULATION¹

INTRODUCTION

The 1982 Convention on the Law of the Sea (CLOS) makes provision for extended coastal States jurisdiction beyond the baseline of the territorial sea over all living resources within 200 nautical miles. Within the exclusive economic zone the coastal State is recognized as having sovereign rights over the entire range of living (and non-living) resources, without exception. The treaty includes additional provisions dealing with certain specific species: highly migratory, anadromous (salmon being the most important), catadromous, sedentary, and marine mammals. Whatever the detailed treatment of a specific species, the most significant point to remember is that all of these resources, without any exception, are subject to the sovereign rights of the coastal State. The additional provisions are important because they qualify these sovereign rights in a manner that varies from one group to another.

The various species present different management problems and the approach to them reflects also the different political contexts that influenced negotiations. The result is the separate provision for each species that seeks to reconcile the interests involved.

Highly migratory species (HMS) are singled out for special treatment for obvious reason: they move considerable distances in the ocean, sometimes spanning several zones of national jurisdiction as well as crossing vast expanses of high seas. The treaty thus has a separate provision not only for the area within national jurisdiction but also for high seas beyond. The treatment of HMS within the EEZ is widely discussed, but it is seldom noticed that the treaty also provides a special high seas regime as well, one which appears to work a radical change in the traditional right of freedom to fish.

The discussion to follow examines general EEZ fisheries provisions dealing with coastal fisheries rights, adopting the specific perspective of HMS. It then seeks to analyze more fully the conditions and limitations attached to these general rights arising from the separate provisions on HMS. Some specific problems of special significance in context of HMS are then examined.

I. SCOPE AND CONTENT OF COASTAL STATE RIGHTS UNDER CLOS TO CONSERVE AND MANAGE FISHERIES IN THE EEZ

(a) Sovereign rights - scope and extent

The LOS treaty provides that the coastal state has sovereign rights in an exclusive economic zone extending up to 200 nautical miles over all living resources of the seabed and subsoil and the superjacent waters. The sovereign rights are for the purpose of exploring and exploiting, conserving and managing the natural resources of the area. The rights pertain to all living resources of the area with one exception - the seabed and subsoil rights are to be exercised in accordance with the provisions on the continental shelf. This means that any conditions or restrictions affecting sovereign rights in the EEZ are not applicable to

¹ The views expressed in this study are personal to the author and do not necessarily reflect the views of FAO.

seabed and subsoil resources. Accordingly, for living resources of the seabed and subsoil, the coastal State need not determine an allowable catch, adopt measures to prevent over-exploitation, promote the objective of optimum utilization, determine domestic harvesting capacity, or give access to any surplus allowable catch over domestic harvesting capacity.

Highly migratory and anadromous species are also singled out from the other living resources for additional separate and sometimes different treatment. Anadromous species are not discussed in the present paper.

Highly migratory species (HMS) (as labelled and defined in CLOS) are subject to coastal authority in the EEZ exactly as are all other species except in the respect that coastal States are, in addition, obliged by Article 64 to cooperate with States fishing in the region "with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone". Such species are accessible for harvesting both within one or more EEZ and beyond. Amounts taken within may affect catches beyond and vice versa; potential effects differ in particular contexts, depending sometimes on the extent of the area of high seas outside fishing zones.

The other side of this picture concerns the rights and duties of fishing States. According to Article 64 such States are obliged to cooperate with coastal States for HMS fishing within the zone and in the region behind. Such States then are not free to adopt conservation and allocation measures applicable only on the high seas without efforts to cooperate for this purpose with coastal States. Fishing in the region prior to cooperative actions would appear to be inconsistent with Article 64, since this could prejudice ultimate conservation and allocation measures, both inside and outside the zone. Article 116 provides for priority of coastal rights and interests by declaring that the right to fish on the high seas is subject to coastal State rights, duties and interests as provided in Article 64 and elsewhere.

(b) Authority regarding conservation in the EEZ

Article 61 details the extent of coastal authority to establish conservation measures under the treaty. Insofar as HMS are concerned these details must be read in conjunction with Article 64. Subject to the obligation to cooperate spelled out in Article 64, the coastal State "shall determine the allowable catch" of fish within its EEZ. (The significance of this qualification is discussed further below). The treaty imposes no limitations on coastal competence to determine the allowable catch except that the stocks are not to be endangered by overexploitation and for the qualification of Article 64 regarding cooperation with fishing States. Accordingly, the coastal State is entitled to exercise its discretion to set an allowable catch so long as this is done in accordance with its Article 64 obligations. While the arbitrary exercise of this discretion is not subject to the provisions on compulsory dispute settlement, the non coastal State can invoke compulsory conciliation procedures of Article 297 and Annex V for certain other arbitrary decisions of the coastal State.

Other than seeking to ensure against endangering a resource by overexploiting, the Convention imposes no other conservation obligation concerning target species. Article 61 (3) states that conservation and management measures shall be designed to maintain or restore populations at levels which can produce the maximum sustainable yield. But this injunction is immediately modified by the phrase "as qualified by relevant environmental and economic factors..," some of which are mentioned. There is no obligation to "conserve" a resource in terms of maintaining a maximum sustainable yield.

(c) Determination of optimum utilization

Article 62 "Utilization of the Living Resources" obliges the coastal State to "promote the objective of optimum utilization of the living resources in the exclusive economic zone without prejudice to Article 61." This provision makes it clear that the treaty definitely does not require "full utilization". First, the term chosen is "optimum utilization" despite the proposals employing the term "full", notably that of the United States which was tabled very early in the game. In other respects the fishery provisions of the treaty follow the structure of the U.S. proposal but depart quite significantly in operational concepts and details, as in this instance. Second, the addition of the phrase "without prejudice to Article 61" means that the coastal State's authority to set an allowable catch is not subject to any obligation to observe a particular level of utilization above zero from a particular fishery. Article 61 authority to set the allowable catch could be exercised, in light of Article 62 (1), at whatever level the coastal State determines to be in the interest of its harvesting industry or its other interests. The only legal exception to this is the Article 64 obligation to "cooperate" which is here interpreted to mean to negotiate and actively to take into account other State interests and respond thereto. This legal exception is emphasized by the factual consideration that HMS, especially tuna, often move from one coastal zone to another and to the high seas where they are subject to other national authority. Unless this factor is taken into account by all participants, coastal and DWF nations, no one's interests can be assured and all might be frustrated.

(d) Determination of harvesting capacity, surplus, and allocation

Article 62 (2) declares that the coastal State shall determine its own capacity to harvest the living resources of the zone. Where this capacity is insufficient to harvest the allowable catch, the coastal State is obliged to ("shall") "through agreements or other arrangements and pursuant to the terms, conditions, laws and regulations referred to in paragraph 4, give other States access to the surplus of the allowable catch, having particular regard to the provisions of Articles 69 and 70, especially in relation to the developing States mentioned therein." Article 62 (4) enumerates a variety of terms and conditions and in doing so further establishes and emphasizes the wide range of discretion accorded to the coastal State in managing the fishery and, in particular, in determining who gets access where there is a surplus. No single State can insist that it has a right of access to a surplus in light of the fact

that the coastal State is authorized to establish reasonable conditions that, when fairly applied, exclude any particular State from the fishery. Fee payment, particularly if applied through an auction system, for example, may quite reasonably result in allowing only one or a handful of States to have access while all others can be excluded. Other conditions mentioned in Article 62 (4) might have the same effect.

The discretion this Article gives the coastal State regarding harvesting capacity will not be discussed in detail as few of the coastal States in the regions for which the present paper was originally prepared have such capacity. However, neither Article 62 nor provisions on nationality of ships appear to place any restriction on the coastal State's authority to acquire this capacity by registration of foreign fishing vessels or otherwise. If one assumes that capacity in this instance refers to vessels flying the national flag, the Convention provides that there is to be a "genuine link" between a vessel and its State of registration, but a State is still virtually unlimited in ascribing its nationality to vessels, as noted below. If capacity means simply foreign vessels recognized by some criteria to be "local" for fishing purposes, while otherwise retaining their national character, then the coastal State's discretion is also unaffected. In the latter instance the CLOS is irrelevant - the coastal State can define a vessel for the purpose of privileged access to fisheries in any way that State prefers, unless it has in some other agreement accepted limitations on that power.

(e) Allocation of a surplus

Article 61 (1) and 62 (2) together accord the coastal State virtually unlimited discretion in allocating a surplus to other States. Who gets what is the coastal State's decision in light of its own interests. Article 62 (3) says that the coastal State "shall take into account all relevant factors" and lists some of them. "Taking into account" in this context is not language that directs the coastal State to give weight to any single factor mentioned (or not mentioned).

One point worth special mention, concerns the specific mention of "habitual fishing" in connection with allocation of a surplus. Some might consider this as a reference to a "historical right". This would be a mistake. Article 62 (3) declares that in giving access to the surplus the coastal State "shall take into account all relevant factors, including, inter alia, the significance of the living resources of the area to the economy of the coastal State concerned and its other national interests, the provisions of articles 69 and 70, the requirements of developing States in the subregion or region in harvesting part of the surplus and the need to minimize economic dislocation in States whose nationals have habitually fished in the zone..." First, this provision does not expressly refer to a "right" but only to a practice so repetitive as to be labelled "habitual". Omission of language descriptive of a right is significant because it underscores that such a practice does not entitle the State concerned to a share of any surplus. Second, the phrase "all relevant factors, including, inter alia", establishes that the factor of "habitual fishing" is simply one of several that can be taken into account in determining the sharing of a surplus but that it need not be determinative. There is no obligation to provide a share because of this factor. Third, the factor first listed is probably the most prominent and important in affecting decision and it is no accident that this factor is the coastal State's own economic and other national interests.

In short the notion of "historical rights" is inapplicable under CLOS to questions of conservation and allocation of fishery resources in the EEZ or beyond. The reference to "States whose nationals have habitually fished" is not equivalent to recognition of a "historical right", as explained above.

II. CONDITIONS AND LIMITATIONS APPLICABLE TO COASTAL STATE RIGHTS REGARDING TUNA FISHING IN THE EEZ AND BEYOND

For present purposes the most important elements of the LOS treaty concern the limitations and conditions on the exercise of coastal State sovereign rights over highly migratory species. The previous pages set out the scope of those rights concerning conservation, determination of harvesting capacity, and allocation of surpluses. Article 64 is the most significant provision affecting this coastal authority and it is first discussed hereafter, followed by more specific comments on conditions and limitations affecting specific decisions under Articles 61 and 62.

A. The requirements of Article 64

Article 64 requires coastal and fishing States to cooperate regarding conservation and optimum utilization of specified HMS both within EEZ and in the region beyond. These two terms appear to embrace all the substantive choices coastal States are authorized to make in the exercise of their sovereign rights in the EEZ and also the choices that must be made regarding the same stocks of HMS on the high seas.

Articles 61 and 62 provide for coastal authority regarding both these subjects; accordingly, Article 64 may be taken to require cooperation regarding the decisions embraced by these articles.

Significant questions arise about Article 64, including the meaning of cooperation and the scope of its subject-matter; when the duty to cooperate is fulfilled; the consequences of failure or termination of cooperation; the manner and forms of cooperation; and its application to fishing in high seas enclaves.

(i) The duty of cooperation and its subject-matter.

It seems obvious that coastal State rights over HMS in the EEZ cannot be exercised in the same way as those over coastal species. That is, the coastal State has final decisionmaking authority in the exercise of its sovereign rights over HMS but instead of exercising that authority and employing discretion, it has the duty of cooperating with other coastal States and with distant water fishing nations (DWFN) to achieve conservation and optimum utilization, which is the term used to refer to allocation of resources. According to Article 64, the object of this cooperation involves more than simply the resources and fishing activities for HMS within 200 n. miles. Cooperative measures are to deal with stocks and fishing within and beyond 200 n. miles, i.e., the stocks of the "region" which is relevant for the States and stocks concerned. In some instances this may include a relatively large number of States, many coastal and some DWFN, and an enormous geographic area, as in the South and West Pacific and the Indian Ocean.

The subject matter of cooperation is the regime that is embraced by the measures identified as "conservation" under Article 61 and "optimum utilization" by Article 62. The aim of cooperation is that the States concerned, *inter alia*, establish a total allowable catch (TAC), adopt "proper conservation and management measures to ensure against over-exploitation, determine the appropriate yield, "promote optimum utilization", consider effects on associated and dependent species, and contribute and exchange data and information. The coastal State is concerned about these matters in its EEZ as well as about determining its harvesting capacity and the terms and conditions regarding access to any surplus. Fishery States are also vitally interested in these decisions and the functions they involve because they bear on their share of the catch, cost of operation timing, gear, locations, and all associated activities.

In this context cooperation should aim at a coherent, unified management regime applicable to the stock within and beyond the EEZ. The parties need to concert their actions and regulations to achieve conservation and optimum utilization, as they define these terms. It seems unlikely that, given these aims and needs, "cooperate" is consistent with unilateral decisions or actions by any State that are not preceded by communications designed to lead to or to establish agreed measures to be implemented by coastal States within an EEZ and by fishing States beyond. To take regulatory action prior to a full and timely exchange of views and proposals would not be consistent with the treaty. Cooperation signifies that the parties not only communicate data and information, but also concrete suggestions for action on specific issues. Cooperation might also take other forms which do not depend on explicit advance agreement, but the requirements of a management regime seem necessarily to demand that the parties seek concrete and specific agreement on the contents of that regime.

Reaching agreement, as a form of cooperation, entails making proposals and considering and making counterproposals. If the parties do reach agreement on the most important issues that, presumably, removes any problem with Article 64.

(ii) Failure to cooperate and its consequence

The question of whether the duty to cooperate is discharged, or when the duty has not been performed, appears to depend on the nature of the decisions to be made and the functions required for their performance. At some point in time the decisions require a choice to be made, as in selecting a TAC, adopting conservation measures, determining yield, and so forth. Decisions on who can take how much, where, when, and how, must be made and typically are made, on a regular basis, usually annually in accordance with the life history of the animal and with the economics of the industry. Because there is a time constraint it is possible to say that cooperation either does or does not produce timely measures.

If the cooperation fails to produce the needed conservation and allocation measures, then even though the parties continue to interact in a cooperative way with respect to some other issues, it is permissible for coastal States to take action to initiate the needed measures, at least in the EEZ and, probably, beyond. Under Article 64 the coastal State may exercise its sovereign rights to make all the choices it is authorized to make under Articles 61 and 62 and to enforce those decisions in accordance with Article 73. Cooperation may continue with respect to those functions or decisions that are not time dependent, as well as in pursuit of any other matters those involved wish to discuss, but the coastal State may proceed to make decisions it is authorized to make by Articles 61 and 62. This interpretation of Article 64 allows coastal States of a region to join in making decisions regarding a stock of common interest that is available for harvest in each of their zones. Fishing States who seek access to this stock must operate in accordance with the decisions of the coastal States.

Article 64 calls for cooperation regarding HMS both within the EEZ and beyond on the high seas. A most significant issue is what are the respective rights and duties of coastal and fishing States when the failure to agree on measures for stocks within an EEZ means there are no agreed measures for the same stocks outside the EEZ. Coastal States, as noted above, are authorized under CLOS to make decisions regarding the stocks within the EEZ, but what happens to those same stocks when they are available outside?

It is assumed that proper conservation and management measures cannot be promulgated and applied for only one part of the area within which stocks are exploited. Tuna cannot be managed successfully if management measures apply only within 200 miles but the stocks are fished in significant degree beyond 200 miles, outside any EEZ in the region. How is this dilemma to be resolved?

Article 64 is the major article dealing with HMS as such although it applies in addition to Article 56, 61 and 62. For the region beyond the EEZ, however, other articles are also relevant, including Articles 87 and 116-119 which concern fishing on the high seas. They provide the treaty basis for resolving the above dilemma, i.e., where coastal and fishing States fail to agree on needed conservation and allocation measures. These articles and Article 64 substantially alter the traditional law regarding freedom to fish on the high seas.

Article 87 provides that freedom of the high seas comprises, *inter alia*, "freedom of fishing, subject to the conditions laid down in section 2". Section 2 declares in Article 116 that "All States have the right for their nationals to engage in fishing on the high seas subject to: (a) their treaty obligations; (b) the rights and duties as well as the interests of coastal States provided for, inter alia, in Article 63, paragraph 2, and Articles 64 and 67; (c) the provisions of this section". This establishes that the right to fish

for HMS beyond 200 miles is subject to Article 64, among other articles. Article 64, in turn, recognizes that the coastal State has sovereign rights over HMS within 200 miles, these being the same HMS that are available on the high seas. Article 116, therefore, provides that high seas fishing for tuna is subject to the sovereign rights of the coastal State over the same tuna stock when the latter is within the EEZ. The question is: what does this mean in terms of the freedom of fishing for tuna on the high seas?

This question is relatively unimportant if fishing States must, as a practical matter, fish within coastal State zones as well as on the high seas. If the DWFN must have access to the EEZ of a region then the coastal States concerned can condition that access on terms and conditions regarding high seas fishing. So long as these terms and conditions are reasonable ones, they would be consistent with CLOS.

A remaining question, then, concerns the possibility that DWFN might seek to operate only within a high seas region and do so independently of coastal State control. What, if any, obligation does the fishing State have regarding the coastal States in light of the provision of Article 116 (b) that the right to fish there is subject to coastal rights, duties, and interests??

On the assumption that coastal and fishing States are unable to agree on conservation measures applicable on the high seas, Article 64 and Articles 116 - 119 might be interpreted in a number of ways that deal with the resulting situation. One interpretation is that failure to agree is not necessarily the same as the end of cooperation and that so long as the parties continue to cooperate, neither the coastal States nor the fishing States can independently promulgate conservation measures applicable on the high sea. This interpretation should be rejected. The practical effect of it would be to leave high seas fishing unregulated, while coastal States prescribe measures for fishing within 200 miles. If high seas catches are a significant part of the overall catch in the region, this approach would frustrate any meaningful management programme. It emasculates the coastal States' rights under Articles 56, 61, and 62 and ensures, not conservation, but that no conservation or allocation measures can be implemented by anybody. In providing for cooperation "with a view to ensuring conservation and promoting optimum utilization", CLOS require the doing of finite tasks associated with a particular fishing season and prevailing conditions. Once parties are unable to "cooperate" on that finite season and for those specific conditions, then further "cooperation" is not what the treaty calls for. Coastal States should not be inhibited from acting on that account.

Another interpretation of Articles 64, 116 - 118 is that when good faith negotiations fail to produce agreed measures the coastal States concerned are authorized by these provisions to establish an

allowable catch for the entire region, including the high seas, that DWFN are obliged to observe under Article 116 and following. Such action must be based on the precondition that such negotiations were genuine and pursued in good faith. The implications of this are that the DWFN must fish within the total allowable catch and are required to observe the measures reasonably necessary to ascertain compliance. Refusal to cooperate to observe the total allowable catch for the region could be made subject to sanctions adopted by the coastal States of the region. Any such measures applicable to the high seas could be made the subject of compulsory dispute settlement provisions either by coastal States or DWFN, as discussed below.

The purport of the above can be made more explicit. Assuming it is a party to CLOS, a State fishing for HMS only in the region outside EEZs would be required to observe a TAC that is applicable in the high seas area and derived by coastal State consideration of all fishing including that within EEZs. The assumption is that good faith negotiations do not produce agreed timely measures.

Another interpretation is that in the absence of agreement on measures applicable within the EEZ and beyond, the coastal States are entitled to establish a TAC for each EEZ in the region, as well as determinations of each State's harvesting capacity, so long as they take account of all fishing in the region. If the collective capacity of coastal States (or the effort authorized) is insufficient to harvest TAC then high seas fishing can take that catch. If the total TAC can be harvested within 200 miles there could be no high seas fishing at all. This interpretation recognizes the unity of the stock and restricts coastal State authority to directly regulate to its own EEZ, but limits high seas fishing in light of the exercise of the coastal rights.

This interpretation might be supported specifically by reference to Article 117 of the treaty which provides that "All States have the duty to take, or to cooperate with other States in taking, such measures for their nationals as may be necessary for the conservation of the living resources of the high seas." Since coastal States are entitled to establish a TAC for tuna within the EEZ and the fishing State's right to fish is subject to that, it follows that the fishing State is required to conserve tuna on the high seas in light of the collective TAC of all coastal States in the region. Conservation means observing the TACs established by coastal States.

Under any of the above interpretations it is difficult to derive from the treaty any specific right of enforcement of coastal State rights beyond 200 miles. If Article 116 (b) is to be meaningful at all the coastal State must be enabled to take action beyond 200 miles to see that the right to fish on high seas does comply with its rights, duties and interests.

Another approach to this problem of compliance might be attractive to all States concerned because it would employ the agreed dispute settlement provisions of the treaty. If under one or another

of the interpretations of the treaty that seek to protect coastal rights, any State (coastal or distant water) feels aggrieved, it can act under Part XV to seek review by an independent tribunal. The exclusion of fishing disputes (in Article 297 (3) (a)) from compulsory binding procedures would not include those which relate to high seas fishing rights, even though they also simultaneously relate to the sovereign rights of the coastal States with respect to living resources in the EEZ. The exclusion of Article 297 is applicable to disputes about fishing wholly within the zone, as is not the case here where fishing occurs in the high seas. However, it should be emphasized that, as a practical matter, a dispute settlement proceeding concerning measures applicable to HMS on the high seas would probably be unable to review only the high seas measures since these would very likely be inseparable from the overall management scheme for fishing within 200 miles and beyond. Accordingly it is not unlikely that any tuna management scheme adopted by coastal States to include a high seas element could be subject to review to by a third party under compulsory and binding procedures.

These interpretations are efforts to make sense of articles that apply to a nearly impossible situation, one in which the States concerned, cannot agree on concerted action even though the alternative of independent action will probably deprive each of them of benefits. Any resulting unregulated fishing by DWFN on the high seas appears to be inconsistent with coastal States' rights to set a TAC and to assure that stocks are not endangered by exploitation. Accordingly, even if it is not clear how Article 64 and Article 116 should be interpreted to provide for conservation when parties disagree, it is clear that unregulated foreign fishing cannot occur without infringing coastal rights.

It should be understood that coastal States also are obliged under the treaty to act reasonably in decisions that affect high seas fishing States. While coastal States have very wide leeway in managing fisheries occurring wholly within 200 miles, they do not have such unreviewable discretion when it impacts on high seas fishing rights. The high seas fishing rights are certainly subject to coastal State rights, but the latter must be reasonably exercised. For example, while coastal States may establish a TAC for HMS in the EEZ, as noted above, this must reflect the range of the stock and the fishing effort expanded on it.

(iii) Manner and form of cooperation: direct interaction and international organizations (10)

Article 64 poses important questions about the manner and form of cooperation including (a) whether it permits a choice between direct cooperation and use of an international organization (10) or whether an IO must be employed even if direct cooperation is also preferred, and (b) what characteristics or elements of an IO are required by Art. 64, if any.

(a) Choice of forms of cooperation

Article 64(1) has two sentences and they appear to contradict each other regarding how States are to cooperate with respect to HMS. The first sentence states that "the coastal State and other States whose nationals fish in the region shall cooperate directly or through appropriate international organizations ...". This strongly suggests that the States involved may choose to deal directly with each other either in a series of one-on-one interactions or in a form involving one group interacting with another State or group of States.

The second sentence of 64(1) is somewhat confusing because it directs that "In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the region shall cooperate to establish such an organization and participate in its work". This appears to contradict the previous sentence which provides that States cooperate directly or through appropriate IO's.

An interpretation that Article 64 mandates cooperation exclusively through an IO is not credible for several reasons. First, the use of the disjunctive in the first sentence of 64(1) is consistent with leaving the final choice of the form of cooperation to the States concerned. Second, the notion that only an IO may be employed for cooperation is inconsistent with all previous and current practice. The pattern on the several decades since World War II has been to employ simultaneously direct cooperation between States and international organizations. It would be surprising if the drafters of Article 64 believed that in the future all States would find that cooperation were possible only if they created a separate institution and refrained from direct interaction. Such an expectation by the drafters is simply not plausible.

b. Characteristics of an Article 64 organization

While Article 64 cannot fairly be interpreted to require coastal and fishing States to cooperate only through IOs, the terms of 64(1) certainly appear to envisage use of such a mechanism. The difficulty is that Article 64 does no more than that — it offers no details, no direction, no concrete guidance into the operational significance of cooperation through IOs. This in all probability reflects the fundamental differences between coastal and fishing States in the LOS negotiations, with the latter insisting that HMS could be managed successfully only by means of IOs and the former maintaining that HMS should be subject to coastal authority in the EEZ as were all other species.

The outcome seems heavily tilted toward the coastal State position because Art. 64 does include HMS within the sovereign rights of the coastal State in the EEZ, but barely mentions IOs or give them any power and responsibility. Since nothing is agreed about the operational details of the IOs, it is up to the States directly concerned (coastal and fishing States) to develop such international bodies as they can agree on. Membership, detailed objectives, internal structure, procedures, voting, finances, relationships with other bodies, and other matters are subject to the decisions of these States. Accordingly the range of the details of "appropriate" IOs is enormous.

More than one IO might be employed in the same region; memberships might vary among them; if only one IO is used the terms of membership might vary; numerous different objectives, procedures, voting arrangements, and functions can easily be imagined. There is no single "appropriate" IO. In light of the differences in IOs currently dealing with HMS this should not be surprising.

(iv) Application of CLOS to fishing in enclaves of high seas

CLOS does not make special provision for fishing in high seas enclaves; this would be subject to the same provisions that apply to high seas fishing otherwise, as discussed above. An enclave is likely to be bounded by more than one exclusive zone, hence enclave fishing would be, or could be, subject simultaneously to the "rights, duties, and interests" of several coastal States. Since the several States may not have the same interests, although sharing the same rights and duties, it seems reasonably obvious that a DWFN undertaking enclave fishing could conceivably confront disparate directions affecting its conduct, unless the coastal States involved cooperate. The treaty calls for such cooperation amongst all States concerned, but if cooperation with the DWFN is not successful in establishing measures for conservation and optimum utilization, then coastal States might agree among themselves on measures applicable to such fishing. The treaty might be interpreted, as discussed above in connection with Arts. 64 and 116, to require that fishing within the enclave take place only subject to those measures.

It seems more likely than not that enclave fishing will occur only as part of a fishing pattern that includes operations within surrounding zones. In such a situation coastal States can prescribe such measures as they please to be applicable to the enclaves, as a condition of access to their zones. Coastal States authority in this respect derives from their authority over zone fishing. Since this latter authority is recognized as part of customary law, it follows that coastal State's control over associated enclave fishing is also compatible with international law.

At the moment, coastal control over high seas enclave fishing disassociated from any zone fishing is not recognized by international law. However, if coastal States around the globe act uniformly to assert the same or similar authority over independent high seas fishing for HMS as might be exercised under the LOS treaty, then this may create customary law that is substantively the same as the treaty. The process resembles that of raising

one's self by one's own bootstraps, but it is a recognized means of creating customary international law. It is not totally unilateral because opposition to the claimed authority may negate its effect in creating law. Accordingly a decision to assert control over enclave fishing, without reliance on the LOS treaty, should be preceded by consideration of the probable response of the affected high seas fishing States.

B. Measures to ensure against over-exploitation

The coastal State "taking into account the best scientific evidence available to it", has the obligation of adopting "proper conservation and management measures" to ensure that living resources in its zone are not endangered by overexploitation. For species found wholly within the coastal State's zone this obligation can be discharged with no unusual difficulty because at least the exploited stock is found wholly within the zone. The coastal State's measures may therefore deal with all of the fishing effort targeting on the exploited stock.

The situation is of course very different for highly migratory stocks because these can be and typically are exploited outside the coastal State's zone and perhaps outside any State's zone. Accordingly the relevant "scientific evidence" pertains to the HMS throughout its range. The "best scientific evidence" is data that might come from sources outside the coastal State. Whether or not that data is "available" to the coastal State is a question of fact. Article 61(2) indicates that coastal States "shall cooperate" with competent international organizations toward the end indicated.

The effect of these provisions is to require that the management process is differently composed and executed for HMS than for other species. In order to adopt "proper" measures the coastal State must seek out information concerning fishing activities and fishing stocks occurring outside its own jurisdictional area. Measures based only on the occurrence of a stock or activities directed at a stock within its own coastal zone of jurisdiction could not be "proper" unless the required information was not available. Lack of availability could not be justified if the coastal State simply refrained from seeking out the relevant information. Accordingly the management process requires interaction and communication with other coastal States and fishing States in the region.

The substance of "proper measures" must also reflect the facts and implications of highly migratory behavior. As noted above, allowable catch must take account of the stock's accessibility elsewhere. Otherwise it is impossible to ensure against overexploitation. If the measures prescribed — time limits, size limits, area closures, gear regulations — might also be affected by the migratory characteristic, they should also reflect this consideration.

C. Measures designed to maintain or restore MSY as qualified by relevant environmental and economic factors

It is clear from Article 61(3) that the coastal State need not seek to regulate fishing so as to secure the MSY of harvested species. The coastal State's management measures can take into account the socio-economic variables that are important in its judgment for realizing coastal interests and manage a stock in order to secure the interests suggested by these variables. Certainly a key factor in this regard so far as concerns HMS is that of "fishing patterns" which is specifically mentioned in Article 61(3). Even coastal State interests would not be served if one coastal State simply ignored what all others did in the region or the fishing activities of DWFN. The provision referring to MSY is sufficiently broad that the coastal State has ample authority to take into account any factor important to its interests and to adjust its interests accordingly.

D. Obligations regarding associated or dependent species

Fishing for tuna in some parts of the ocean employs a fishing technique that can have (and has had) considerable effects upon the abundance of other species. In the eastern tropical Pacific the practice of setting nets on schools of porpoise caused severe mortality and led to U.S. legislation requiring corrective measures by U.S. tuna vessels and, more generally, to laws protecting marine mammals. The LOS treaty also makes provision for effects of fishing on other species. Article 61(4) requires that in taking conservation and management measures a coastal State shall "take into consideration the effects" on associated and dependent species "with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened".

The obligation conveyed by this requirement is potentially onerous. The reason is not that the standard for conservation is high; avoiding impacts which might seriously threaten reproduction of the species is probably not significantly different from the general conservation standard for all living resources in the EEZ contained in Article 61(1), namely that living resources not be endangered by overexploitation. The burden rather would come from the theoretical and practical requirements for understanding the effects of tuna fishing on other species. To carry out Article 61(4) adequately would entail a satisfactory understanding of the ecosystem as a whole and the effects of tuna fishing within the system. This task appears to demand a better understanding than we now have or are likely to get for some time. Further, the practical difficulties of generating adequate data are not trivial. As a whole the obligation would require an enormous expenditure of money and time.

So long as no observable serious effects are noted or suggested by anyone, it seems unlikely that Article 61(4) will occasion problems. In any event no sanction is provided for failure to meet this obligation although should a dispute arise, Article 297(3)(b) provides for submission to compulsory conciliation. It is not immediately apparent that States would be inclined to invoke this procedure in this type of situation.

E. Contribution and exchange of data

Articles 61 and 62 both contain provisions pertinent to the acquisition of information and data regarding fishing in the EEZ. The former article calls in paragraph 5 for the contribution and exchange on a regular basis of specified information and data "through competent international organizations ... where appropriate and with participation by all States concerned, including States whose nationals are allowed to fish in the exclusive economic zone". Article 62(4)(c) specifies that the coastal State may condition permission to fish in its zone on receipt of information from fishing vessels, while subparagraph 4(q) provides that the coastal State may require, authorize and control, the "conduct of specified fisheries research programs". In combination these provisions are ample authority for the coastal State to acquire all needed information and data regarding HMS within their migratory range.

Article 64 and Part VII (High Seas) Section 2 provide additional obligations regarding information needs of HMS on the high seas. Article 64's basic requirement of cooperation regarding conservation of HMS within and beyond the zone can reasonably be interpreted to extend to cooperation in acquisition and dissemination of data and information needed for conservation. Independently of this, Article 118 repeats the general obligation to cooperate and to negotiate "with a view to taking the measures necessary for conservation" of the living resources they exploit on the high seas. Article 119(2) parallels Article 61(5) in calling for the exchange of data relevant to conservation through competent international organizations. This latter provision does not imply, in light of Article 64, that data can only be exchanged via an international organization. The alternative requirement in Article 64 of direct cooperation means that data and information can also be exchanged directly between and among the States concerned.

F. Optimum utilization, surplus, and allocation

All coastal State decisions on these subjects are conditioned by the fact that HMS are or may be caught throughout their migratory range, in other EEZ and on the high seas. Because these catches together may affect abundance within any particular EEZ and locations on the high seas, it is difficult for any single coastal State to manage the stock to optimize the benefits of use by tailoring effort to match abundance to produce desired results.

In any event decisions on these issues are subject to the Article 64 provision for cooperation and can be made only after cooperation has failed to produce timely measures to be observed. Coastal competence under Article 64 was reviewed in an earlier section.

III. Applicability of CLOS to non-parties

It now appears probable that one major tuna fishing and consuming State, the United States, will not become a party to CLOS for some years. Questions arise regarding obligations owing (or not owing) to such a State after coastal States do become parties to a CLOS that comes into force. This, in turn, raises the question of customary international law regarding tuna.

Whether or not the U.S. is party to CLOS it now seems to be a fully accepted principle of customary law that coastal States have and may exercise jurisdiction over all living resources within 200 miles. Accordingly coastal States may continue to insist that the tuna and other highly migratory species found within 200 miles are subject to the coastal State's sovereign rights for the purpose of exploring, exploiting, conserving and managing them. DWFN are required by customary international law to secure the permission of the coastal State to gain access to tuna within 200 miles and comply with coastal State laws and regulations regarding terms and conditions of fishing.

A more significant issue is whether the coastal State is obliged by customary law to cooperate with DWFN for conservation and utilization of the tuna both within and beyond the exclusive economic zone. It does not appear that cooperation is legally mandated in either area but there can be no serious question that neither conservation nor optimum utilization can be achieved unless all concerned coastal States cooperate with each other and with DWFN. That negotiations on conservation and allocation of benefits is essential to rational management is undeniable, but it does not follow that such negotiations are required by international law, apart from the treaty.

In the absence of the treaty, therefore, the coastal State may establish such reasonable conservation and allocation policies as it wishes and enforce such policies by seizures of vessels fishing contrary thereto in the 200 mile zone. As noted, such a legal position might not benefit the coastal State if implemented without negotiation in advance with other States located or fishing in the region.

Coastal State jurisdiction does not extend at all to high seas tuna fishing in the absence of the LOS treaty except for the possibility that the international use of payaos to divert fish from the EEZ might justify a claim to exercise jurisdiction. Apart from such an exceptional (and difficult of proof) situation, high seas fishing may be conducted without regard to the coastal State wishes or that of any international organization. This is in sharp contrast to the LOS treaty which introduces a new qualification upon freedom to fish for tuna on the high seas, arguably allowing coastal States to exercise some jurisdiction over tuna.

IV. AUTHORITY OVER FISHING WITHIN ARCHIPELAGIC WATERS

Article 51 provides that an archipelagic State, without prejudice to its sovereignty over the resources and area concerned, "shall recognize traditional fishing rights and other legitimate activities of the immediately adjacent neighbouring States in certain areas falling within archipelagic waters". This required recognition is extremely limited because it extends (a) only to archipelagic waters, not those of the EEZ and (b) only to immediately adjacent neighbouring States, thus excluding all DWFN as well as those States in the "neighborhood" but not "immediately adjacent". The restrictive character of this recognition of "traditional rights" is further to be seen in the provision that the manner, nature, location and extent of these rights are to be regulated by bilateral agreements, at the request of any of the States concerned. The burdened archipelagic State is thus given a significant voice in determining the substance and operational significance of these traditional rights.

The significance of this provision regarding traditional fishing rights in archipelagic waters is dependent, of course, on the extent of such rights in concrete circumstances. The fact that archipelagic waters are enclosed within a surrounding economic or fisheries zone, within which no similar rights exist, may further attenuate this significance. At the same time this provision may also provide a basis for giving a preference to the same States in the surrounding economic zones, the basis being that otherwise the traditional fishing rights within archipelagic waters would lose much of their value and attractiveness. Whatever the circumstances, however, the most important point is that even if traditional fishing rights exist in a specific instance their exercise is subject to regulation by bilateral agreement with the archipelagic State. In the absence of such agreement, the sovereignty of the archipelagic State would apply without qualification and any fishing would be subject to the unfettered control of that State.

V. Nationality of fishing vessels

CLOS Article 91 provides that each State determines the conditions under which vessels are given the right to fly its flag but states that there must be a "genuine link" between the State and the ship which flies its flag. This substantially repeats a provision included in the 1958 Geneva Convention on the High Seas. That provision was meaningless and it continues to be. No one challenges the nationality of a ship so long as it is properly registered with the State of its flag. Nothing in CLOS or in the 1958 Convention limits the coastal State in deciding what vessels it will register. While CLOS Art. 94 specifies matters on which the flag State is to exercise jurisdiction and control it provides no sanctions or redress should a State fail to do so.

The most significant point to emphasize is that the bases for ascribing nationality to a vessel, under CLOS or customary law, are left to the flag State's discretion. This means that a State may acquire a harvesting capacity by this means at will, in addition to other methods. Other States need to be aware of this.

VI. FISH AGGREGATION DEVICES (FADs)

FADs might be deployed within an EEZ or on the high seas beyond. The following summarizes the law of the sea with respect to these two situations.

With respect to deployment of FADs within an EEZ or fishing zone, it is clear that they fall within the coastal State's jurisdiction, control, and responsibility. Whether FADs may be emplaced within 200 n. miles is solely for the coastal State to determine. If they are to be deployed, the coastal State may establish and apply whatever regulatory regime it may wish, subject to the proviso that some regulations must be prescribed. In particular, under CLOS Article 60 the coastal State must take action for notice of deployment, warning, removal, safety zones, publicity, and placement relative to essential sealanes. If the coastal State neglects promulgation of protective and safety regulations it would be responsible and liable for the resulting harms. If conflicts or disputes develop over conditions arising from FAD use, then the coastal State has sole authority to resolve them.

The implication of the above is that coastal States need to study the problems generated by FAD use and to make provision for them, including the possibility of adverse effects in other States.

Two specific questions arise about the potential transnational effects of FADs. It is conceivable that FAD placement within one State's EEZ might divert or diminish a fishing stock otherwise available to a neighboring State in its EEZ or in the outside high seas region. The reverse is also conceivable: FAD placement on the high seas could conceivably alter the stock otherwise available within one or more EEZ or elsewhere on the high seas.

So far as is known these problems are not imminent. Obviously there are substantial difficulties in determining a casual relationship between location of FADs and the decline in catches in another location.

Assuming causation can be established, the LOS treaty deals more clearly with the issue of high seas FADs than it does with those in another EEZ. Although CLOS does not expressly provide for high seas FADs, it does declare in Article 116 that the right to fish on the high seas is subject to the rights, duties and interests of the coastal State concerning tuna. Any high seas tuna fishing, including fishing on FADs, thus is burdened in some manner by the superior right of the coastal State. Unfortunately, as noted in earlier discussion, Article 116 does not spell out what the nature of this relationship is, but there can be no question that coastal State "rights, duties, and interests" are to dominate. In the case of FADs that lead to a

decline in EEZ catches, the coastal State's interests would not be recognized if FADs could be freely deployed. Earlier discussion noted the generality and uncertainty of the CLOS provision on high seas fishing; as a means of fishing FADs would appear to be subject to those provisions the same as a fishing vessel seeking to catch fish on the high seas.

Insofar as emplacement of FADs in an EEZ affect catches is another EEZ, the LOS treaty makes no comparable provision for a dominant position by one of the States. The two States are enjoined by Article 63(1) "to agree upon the measures necessary to coordinate and ensure the conservation and development" of the shared stocks and by Article 64 to cooperate. There is no method suggested, other than dispute settlement procedures, for resolving the issue.

VII. TRANSIT OF EEZ AND PROTECTION AGAINST ILLEGAL FISHING

Two measures are frequently suggested to deal with the problem of transitting foreign fishing vessels. One provides that the foreign fishing vessels report entry and proposed exit times and places immediately upon entry into the EEZ as well as give notice of intended transit through any zone. Such reports would also include the quantity of fish aboard the vessel and the predominant species. A second measure would have, transitting vessels stow or secure all fishing equipment so that it would not be readily available for fishing.

If these were agreed measures contained in an access agreement between the coastal State and the DWFN, they would encounter no difficulty or obstacle under CLOS. However, imposition of a reporting or notice requirement in the absence of an access agreement probably would raise a question and might be regarded as impermissible under the EEZ provisions of the CLOS. In contrast, the stowages requirement would probably be generally accepted as a permissible regulatory measure in the EEZ as provided in the CLOS.