

## CARIBBEAN AND INTERNATIONAL SESSION

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### **Zones of Extended Jurisdiction: Their Impact on Fisheries Management in the Developing World**

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#### RESUMEN

La proliferación de zonas de jurisdicción ampliada de pesquerías está creando un grave desafío administrativo para todas las naciones ribereñas, tanto desarrolladas como subdesarrolladas. La jurisdicción ampliada supone la oportunidad, pero también la gran responsabilidad, de ejercer una administración acertada; en años recientes, las necesidades del mundo en vías de desarrollo han sido objeto de gran atención en los círculos pesqueros internacionales. Respondiendo a las recomendaciones de su Comité sobre Pesquerías, el Departamento de Pesquerías de la FAO está instituyendo un vasto programa que tiene por objeto hacer frente a los requerimientos a corto y a mediano plazo. La Agencia para el Desarrollo Internacional de los EE.UU. está considerando instituir programas que respondan a las necesidades expresadas por los expertos en pesquerías en los países en vías de desarrollo, como complemento de los esfuerzos de la FAO. Recientemente, la AID patrocinó un taller de trabajo sobre la evaluación de la población pesquera en las pesquerías artesanales tropicales, y actualmente realiza otros proyectos a corto plazo relativos a la jurisdicción ampliada.

En el caso especial del Golfo de México y el Mar Caribe, donde la geografía exige una colaboración estrecha entre naciones, el Instituto de Pesca del Golfo de México y el Mar Caribe (GCFI) podría desempeñar un papel útil en la resolución de problemas de jurisdicción ampliada, en vista de su particular condición de entidad no gubernamental relacionada con las pesquerías de la región. El simposio patrocinado por el GCFI, que tiene por objeto examinar los problemas científicos y de administración comunes, podría preparar el terreno para la futura acción cooperativa.

#### SIGNIFICANCE OF THE PROBLEM

To say that the impact of zones of extended jurisdiction<sup>2</sup> on fisheries is unmatched since Grotius is only to repeat practically every recent speaker on

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<sup>2</sup>Commonly referred to as extended economic zones (EEZ's) which many of them are. Some nations, however, claim sovereignty over their extended zones (e.g., Panama) while others limit their control to fisheries alone (e.g., USA).

the subject. Certainly the rash of extensions in recent years is a tremendously significant event, one that has changed all our traditional concepts of freedom of the seas—and of fishing—while simultaneously creating an equally tremendous managerial challenge for all nations, developed and developing alike.

Zones (most commonly but by no means always 200 miles in width) are thus a fact of life, regardless of the outcome of the Law of the Sea negotiations. This means that many developing nations, along with such developed ones as the U.S., can now exercise their authority over the living resources in their extended zones. For nations such as India, it means gaining control over a huge area with huge resources. The other side of the coin is exemplified by Thailand whose fishing operations off neighboring countries are being cut far back as those nations implement control over their zones. For all countries, it will require an accommodation to a new legal regime, whether the zone means a net gain (as for India) or a net loss (as for Thailand). This is an accommodation with which few, if any, are truly prepared to cope but which all recognize as a serious problem.

The 180° turn in our thinking in the U.S. from the long-sacrosanct 3-mile territorial sea to the situation we have today has taken place in a very short period of time. This was brought home to me in reviewing material for this paper when I happened across the San Diego Law Review for July 1970 (Vol. 7 No. 3). This issue was devoted to the law of the sea and featured articles by, among others, two giants in fisheries affairs in the post-WW II period, “Wib” Chapman and “Benny” Shaefer, both strong proponents of narrow jurisdictional zones. What a difference 9 years can make! You cannot help but wonder what the situation would be today if those two men had not died at about the time that issue went to press.

Since virtually all fisheries save those for tuna and billfish take place within these new zones of national fisheries jurisdiction, the coastal states have obtained effective control over living marine resources. However, more often than not, they do not have the professional capability to administer them. The case is, of course, worse for developing nations than developed.

The difficulties that the U.S. is facing in managing its 200-mile fisheries zone, despite its capabilities in fisheries science and management, give a measure of the problem faced by nations with small or virtually nonexistent fisheries staffs.

Extended jurisdiction has created a great opportunity but it brings with it a great responsibility. The opportunity is there for many developing coastal states to utilize what are now their own resources to help meet their nutritional requirements and to raise the employment level and income of their coastal fishermen. The responsibility that accompanies the opportunity is for wise management and that more often than not means coordinated efforts among neighboring states. The United States has, I believe, a special responsibility to provide guidance and help, because its action in extending its fisheries jurisdiction encouraged others to follow suit. Further, the U.S. has a reservoir of talent that can be marshalled to participate in programs of technical assistance.

The developing world currently produces about 25 million metric tons (mmt) of fish per year. The most recent estimates of supply, prepared by the National Academy of Sciences in its World Food Nutrition Study (1977), are that the LDCs can increase their catches by 20-30 mmt per year by harvesting the resources near their shores at an optimal rate under proper management. Much of the current LDC harvest is taken by literally millions of small-scale (artisanal) fishermen and much of the increase could be taken by them.

The problem of upgrading the rural fishing communities is thus one of major importance to the developing world and to one of the most impoverished segments of their population, the small-scale fishermen. The success of programs designed to be of help to this group will in the long run depend in a large measure on the ability of the LDCs to manage their zones and the resources in them.

### NATURE AND HISTORY OF THE PROBLEM

During the past few years, a good many people have given a great deal of thought to what could be done nationally and internationally to cope with this dynamic situation. The major problem in most nations is the lack of people with the administrative, managerial, and scientific competency to deal effectively with fisheries affairs. A corollary problem is the lack of suitable scientific systems that can be applied in the management of tropical fisheries, especially at the artisanal level. There remain, of course, a host of other problems that inhibit fisheries and aquaculture development. Many of them, particularly in aquaculture, are receiving serious attention, but at this time the problems associated with extended fisheries jurisdiction appear to hold priority.

The concepts and current problems of extended jurisdiction are not simply products of the current round (the third) of UN Law of The Sea deliberations, for extended jurisdiction has been a serious fisheries issue since President Truman issued his proclamations on the continental shelf and fisheries in September 1945. Though there had been earlier enunciations of resource zones by several Latin American nations, this expression by the U.S. led to a chain of actions in Latin America that culminated in the Santiago Declaration of 1952. The United States maintained its position opposing any extension of national sovereignty throughout the 1950's and '60's, and it was only in the '70's that this position softened at the Law of the Sea negotiations. For many years, freedom to fish anywhere in the world outside of 3 miles was a cornerstone of the official U.S. position, supported in particular and most strongly and ably by the tuna and shrimp industries. This position was eroded in 1966 with the establishment of a 9-mile fisheries zone beyond the territorial sea in which traditional foreign fisheries might continue. It fell with the passage of the Fisheries Conservation and Management Act of 1976.

Perhaps the first general recognition of the nature of today's problem came at the April 1977 session of the FAO Committee on Fisheries at which a major issue was the changing regime of the seas. A full day was devoted to this agenda item, which involved interventions by more than 45 countries, most of them LDCs expressing their need for assistance in carrying out these major new responsibilities of ocean management. As a result, the Secretariat of

COFI was "requested to prepare a programme for the development of the economic zones of the developing countries and to submit it to a future session of the Committee" (COFI XI, Report, 1977). The response, document COFI/78/4, brought about an extended discussion at COFI in 1978, during which the U.S. delegation supported the plan proposed therein. The Committee "examined the documentation submitted by the Secretariat and considered that it provided a useful general framework for the elaboration of the programme of assistance by the Organization for the development of fisheries of extended economic zones of developing coastal states. Many delegations, however, expressed the view that in order to be more responsive to the relevant recommendation of the FAO Conference at its Nineteenth Session, the programme of assistance needed to be formulated in a more precise and comprehensive form with more clearly defined objectives and priorities while keeping the necessary element of flexibility to respond to specific situations."

The Committee asked the Secretariat to prepare a detailed report for consideration by the Subcommittee on the Development of Fisheries in Economic Zones, a body set up by COFI during the session. (See paras 10 and 42, COFI XII Report, FAO 1978b.) The Council of FAO at its 74th Session (FAO 1978c, para 36) gave highest priority to program development as did the Director-General of FAO. Document COFI/79/4 prepared for COFI XIII held in October 1979 formed the FAO Department of Fisheries response to all of these events.

COFI's interest in and action on the problems of extended jurisdiction has paralleled and in some cases stimulated activities by other agencies in examining their possible roles. For example, the Indian Ocean Fisheries Commission, a FAO body, at its meetings in the fall of 1977 devoted a significant amount of time to the subject. The U.S. and Australia made major interventions regarding their experiences with and plans for extended jurisdiction, which underlined the complexity and seriousness of the problems associated with managing these zones. This reflected the increasing concern that the LDCs had been displaying with respect to the development of their own management schemes.

AID itself is another example. As part of its response to the amendment of the International Development and Food Assistance Act of 1975 that added a "Title XII—Famine Prevention and Freedom from Hunger" to the Act, AID commissioned a study of research needs in fisheries and aquaculture (Craib and Ketter, 1978) that had this to say:

"As noted in another section of this report, the extended economic zone and the emerging Law of the Sea is an area of considerable concern and high priority in most developing countries. A collaborative research program in this area appears both appropriate and desirable. Such a program is, however, more difficult to structure than others at this time due to a lack of detailed information concerning the scope, nature, and relative priority of its researchable aspects on a worldwide basis.

"In view of the potential impact and worldwide importance of such a program, and in consideration of the United States' position of

leadership in this field, it is strongly recommended that AID and the BIFAD undertake a definition study in this area to more clearly describe the scope of the research problem and structure alternative approaches to solutions. Had such information been available to the team responsible for this planning effort, this particular program might well have rated significantly higher in relative priority."

Interest is not limited to governmental bodies. For example, ICLARM—the recently established International Center for Living Aquatic Resources Management headquartered in Manila—as one of its first activities conducted a 9-month study that culminated in a workshop on extended jurisdiction held in December 1978. The workshop, which was sponsored jointly by ICLARM and the Institute of Southeast Asian Studies, was focused on management problems in Southeast Asia.

There are others, but these are sufficient to highlight the broad international interest of the past few years.

### Needs

What are the specific needs? The problem is multi-faceted, and its aspects range from species identification through population dynamics to legislative needs, law enforcement and surveillance. The problem is global, though its aspects may vary from region to region and country to country. There is no question as to the feelings of developing countries. It is expressed in virtually every international fisheries forum concerned in any way with technical assistance, and the message came through clearly in the overseas visits made as part of the RDA study.

My personal observation is that the most pervasive need is for development of cadres of people trained in disciplines appropriate to fisheries management. This implies national legislation establishing fisheries policy and fisheries organizations, and it implies long-range technical assistance lasting until a given nation is able to cope with the situation itself. This may be a year or a decade. The main thing is for the donors not to repeat history and depart without worrying about who is left behind to take care of the future.

There is another point of view that a senior official of a developed country expressed that runs along these lines: Things are going from bad to worse so far as fisheries in the developing world are concerned. Country-specific projects can't meet the need—the approach must be regional or sub-regional. Meantime, many officials in LDCs have, unbeknownst to their fisheries colleagues, given away the store through deals for joint ventures that allow distant-water fleets to harvest a disproportionate share of the stocks and to reap a disproportionate share of the profits. Regional efforts won't or can't be in place in time to stave off potential disaster. None the less, a massive educational program can provide the LDCs with the cadre of trained people (professional and sub-professional) they require in the longer term to manage their fisheries, so a widely-based education and training program is essential to the future well-being of fisheries in the developing world.

I am quite fully in agreement on that latter point and with the need for strong regional organizations, but I am not as yet ready to jump on the doomsday bandwagon.

## Recent Responses

As I have noted, a number of bodies have interested themselves in the problems of extended jurisdiction in the past few years. I want now to discuss the recent responses of three of them. The first of these is FAO/COFI. COFI has taken the lead with its actions at the last few sessions, and FAO has responded, particularly in the last year at the headquarters level.

The FAO program delineated in COFI/79/4 and debated at the 13th session of COFI in October 1979 was formally announced by FAO at the UN in August 1979. FAO has suggested a program consisting of two elements that are designed to be interrelating. The first is described in 79/4 as one of medium term that will meet priorities already identified. It involves such things as the assessment of country situations, providing advisory services, providing training for these with administration and management responsibilities and "mobilizing and promoting the effective use of bilateral and multi-lateral financial assistance." The second element is long-term and concerns "the development of practical frameworks for fisheries management," including "further study of the effects of extended jurisdiction." This is clearly an expensive proposition, and funding may be the biggest hurdle to overcome. Norway has provided about \$3.6 million to help plan and implement the program. About \$13 million is firm for the 1980-81 biennium with another \$8-9 million in sight. If this materializes, it will take care of that biennium. Impressive though these sums sound—and are—they do not cover anticipated financial requirements. FAO estimates it will need an additional \$14 million for 1982-83 for long-term activities plus about \$40 million for technical support activities in the medium term. Further there is the problem of manpower to carry out the assistance program. It may well prove easier to find the money required than the skilled personnel needed to expend it wisely.

The second response I would like to discuss is one devised by Robert Hart, now a fisheries advisor to the British Commonwealth Secretariat, while he was still a senior fisheries official in Canada. His idea calls for a project designed to assist developing countries in the management of their fishing zones under extended jurisdiction that would provide for training people in fisheries administration and management by means of video tape and associated texts. He has named the project VITALOS: Video Tapes on the Law of the Sea. The bare bones of the proposal call for training 5,000 people in about 120 nations in 5 years through a core course of 40 hours of videotape accompanied by 160 hours of study. He puts the cost at around \$5 million. I have no quarrel with the number of people needing training but I have a hunch his budget is low. Hart pursued the VITALOS concept after joining the Commonwealth Secretariat, and he told me at COFI that support so far was very encouraging.

Third and last, I would like to review what the U.S. is doing with respect to extended jurisdiction and the needs of the developing world. The Agency for International Development, which is now a part of the new International Development Cooperation Agency, is presently involved in several small activities that bear in varying degrees on extended jurisdiction. The least

directly concerned is a study which started in July 1979 that is being made by the National Academy of Sciences' Ocean Policy Committee and that is funded jointly by the State Dept, NOAA, and AID. It is entitled "A Study of Marine Technical Assistance and Cooperation in Fisheries and Oceanography" but its terms of reference were deliberately broadened to include inland fisheries and aquaculture.

During the course of the 18-month study, the Academy proposes to: evaluate program objectives and the means developed to achieve them as they relate to success and failure; project future U.S. objectives and research needs, and the future needs for assistance as perceived by LDCs; assess the U.S. capability to meet the future objectives and perceived needs; and make recommendations regarding general requirements and mechanisms for future programs.

The study covers U.S. agencies generally, plus certain aspects of programs conducted by U.S. universities, foundations and international agencies.

In September 1979, the Agency sponsored a workshop conducted by the University of Rhode Island (URI) that considered the problems of stock assessment in tropical fisheries, with an eye to defining possible areas of research that could be prosecuted under Title XII of the Foreign Assistance Act. This topic is of prime importance in the developing world. During the RDA study, representatives of developing countries had given high priority to the development of techniques that would provide reasonably accurate information on the status of their stocks not only in the sea but in rivers and lakes as well.

The need for suitable techniques predated extended jurisdiction but the proliferation of zones reemphasized the need. The URI workshop addressed these fundamental questions: (1) What do the developing countries need to know, and how do they get information required, to harvest and manage the living aquatic resources available to them at an optimal level? (2) What studies can be instituted within the framework of Title XII collaborative research to help these nations carry out their management responsibilities with particular respect to small-scale fisheries in both salt water and fresh? The workshop was most successful; its report should be ready early in 1980.

Finally and directly related to extended jurisdiction, the Agency is considering financing a short-term definition study of fisheries problems facing LDCs as a result of extended jurisdiction that will: (1) define and describe the principal problems facing LDCs in fulfilling their responsibilities for fisheries management and development under a regime of extended economic jurisdiction; (2) determine what action responses are appropriate, and how donor countries can assist; (3) determine specific needs for research and/or additional studies which would be useful to LDCs generally or specifically in improving their capabilities to manage their fishery resources; (4) delineate problems not requiring research for their resolution and define action necessary to address these problems; and (5) identify alternative opportunities and courses of action open to the U.S. to provide assistance to LDCs within the context of AID's concerns for basic human needs.

We feel that the report will have an impact beyond its immediate use by

AID in developing programs designed to assist small-scale fishermen, and by other U.S. agencies in carrying out their functions (for example, NMFS and Sea Grant in NOAA; OES/OFA in State). It should be of major interest and value to the governments of developing countries by providing them with guidelines, and it should be of almost equal interest and value to other donor nations, multilateral bodies and foundations that are concerned with fisheries development and management.

#### Extended Jurisdiction in the Gulf and Caribbean

The geography of the Gulf of Mexico and the Caribbean Sea makes this part of the world ocean all but impossible to manage without cooperation among the littoral nations, for equidistant lines constructed within the Caribbean and in much of the Gulf are less than 200 miles from shore. A 200-mile zone in the literal sense of the term is a rarity save in part of the Gulf and along the Atlantic boundary.

National claims vary (Table 1). The most restricted claim is Dominica's 3-mile territorial sea and 12-mile fishing zone. The most extensive is Panama's 200-mile territorial sea. The most common claim is a 12-mile territorial sea and a 200-mile economic zone.

The Western Central Atlantic Fisheries Commission (WECAFC) discussed the subject at its 1978 Session, at which "It agreed that consideration of these matters should be restricted to those technical and institutional aspects for which FAO, and therefore the Commission itself, had responsibility, thus excluding problems of jurisdiction or questions related to national sovereignty." The Commission noted that "the biological characteristics of these resources made governmental cooperation advisable or even necessary," and asked FAO to identify shared resources. Unfortunately, the WECAF project will be short on funds during the next biennium unless the UNDP interregional program somehow obtains additional funds.

While GCFI cannot of course substitute for WECAF, it does seem that GCFI can play a most useful role with respect to problems administrative, biological, economic or legal in their nature, because of its unique position as a non-governmental body. James Storer spoke to this point in his conference summary at the Conference on Development of Small-Scale Fisheries in the Caribbean held as part of the 30th GCFI in Cartagena, Colombia. His statement is worth rereading in the context of extended jurisdiction, and I quote his closing sentence: "It may be the first time that a particular region has been well served by a broadly disciplined, intellectually capable, but practically minded group that would look at the problems and provide recommendations for their solution, insuring a continuing and objective leadership that is not otherwise available."

I move from the Cartagena Conference to last year's 31st GCFI at Cancún, Mexico, where James Burnett-Herkes led the evaluation team of the session on Scientific Assistance to Caribbean Fisheries. One of the recommendations was for a Caribbean Fisheries Symposium at which policy makers, administrators and industry representatives from all nations would



Table 1. Maritime Claims of Gulf and Caribbean Nations (as of November 2, 1979)

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TS 3 FZ 12	
Dominica	
TS 3 FZ 200	
*Bahamas	*Nicaragua
*Netherlands	*United Kingdom
*United States	
TS 6 EZ 200	
Dominican Republic	
TS 12 FZ 12	
Honduras	
*Jamaica	
*Trinidad and Tobago	
TS 12 EZ 200	
*Barbados	*Guatemala
*Colombia	*Guyana
Costa Rica	*Haiti
*Cuba	*Mexico
*France	Surinam
*Grenada	*Venezuela
TS 200	
*Panama	
TS: territorial sea in nautical miles	
EZ: economic zone in nautical miles	
FZ: fishing zone in nautical miles	

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Source: US State Dept, Office of the Geographer

\*Members of the Western Central Atlantic Fisheries Commission as of 1 Oct 1979

participate. Such a symposium or conference sponsored by GCFI and designed to review in a non-governmental forum some of the common managerial and scientific problems of the region could serve as a jumping-off place for future collaborative action. I urge GCFI to consider doing this in 1981. I am sanguine that, with a year's lead time, the necessary support funds can be found.

#### REFERENCES

- Burnett-Herkes, J., and others  
 1979. Report of The Evaluation Team on Scientific Assistance to Caribbean Fisheries. Proc. Gulf Caribb. Fish. Inst. 31: 127-129.
- Craib, K. B., and W. R. Ketler (editors)  
 1978. Fisheries and aquaculture: Collaborative research in the developing countries. A priority planning approach. Prepared for the Board for Internat. Food and Agric. Develop., USAID, by Resources Development Associates, Los Altos, Calif. 266 p. appendices.

Food and Agriculture Organization of the UN

1977. Report on the Eleventh Session of the Committee on Fisheries  
Rome, 19-26 April 1977. FAO Fish. Rept., (196): 48pp.

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1978a. Report of the Second Session of the Western Central Atlantic Fisheries  
Commission Panama, 22-26 May 1978. FAO Fish. Rept. (209): 48pp.

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1978b. Report on the Twelfth Session of the Committee on Fisheries Rome, 12-16  
June 1978. FAO Fish. Rept., (208): 32pp.

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1978c. Report of the Seventy-Fourth Session of the Council of FAO Rome,  
27 Nov-7 Dec 1978, para 36.

---

1979. Comprehensive Programme of Assistance in the Development and Manage-  
ment of Fisheries in Economic Zones. Doc..COFI/79/4, 10pp.

International Center for Living Aquatic Resources Management

1979. ICLARM Newsletter, Metro Manila, Philippines, 2(1) :20pp.

National Academy of Sciences

1977. Aquatic food sources. In World Food and Nutrition Study, supporting papers,  
1:251-281.

San Diego Law Review

1970. Law of the Seas. SD Law Rev. 7(3): 708p.

Storer, J.A.

1978. Summary of the conference. Proc. Gulf Caribb. Fish Inst. 30:236-239.