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Dividing the Waters

The fish haven't been biting for the nation's fishing industry in recent years. The U.S. catch was only slightly higher in the mid-70's than a decade earlier—compared with a 27-percent increase for the world fishing fleet—and imports accounted for 71 percent of total U.S. consumption last year. While Japan, the Soviet Union and other countries have developed modern, efficient fishing fleets, the U.S. fleet (except for the tuna sector) has lagged in the technology race. Moreover, productivity in the U.S. industry has lagged behind what has been achieved in the production of its two closest substitutes—meat and poultry.

American fishermen—or most of them—turned to Congress for help when they saw the decline in their own catch and the bountiful harvest obtained by Japanese and Russian factory ships off American shores. Congress then responded with a major shot in the fin for the industry—the Fishery Conservation and Management Act of 1976. That legislation dramatically adds the U.S. to the list of 40-odd nations which claim exclusive jurisdiction over all fishery resources within 200 miles of their coasts. However, the step met with State Department opposition, not only because it represented an about-face in U.S. foreign policy, but also because it could weaken the U.S. bargaining position on, say, the allocation of deep-sea mineral rights in the current Law of the Sea Conference. The new initiative also upset the tuna and Gulf shrimp industries,

which obtain substantial portions of their catch from foreign coastal waters, and which will no longer be able to obtain U.S. government support when caught fishing within 200 miles of somebody else's coast.

Problem: conservation

What Congress has done is to attempt to solve by legislation what is essentially a problem of conservation. Fisheries are open-access resources; they are owned by no one and whoever chooses to exploit them may do so. The individual fisherman fishes as long as the price of fish exceeds the cost of catching them. When the demand for fish is minor relative to the available stock, and the price of fish thus relatively low, catches will remain smaller than the maximum which can be taken on a sustained basis. However, as demand increases with the growth of human populations and incomes, prices rise and fishing effort is intensified. In that case, the individual actions of fishermen easily lead to over-exploitation of fishery resources.

Even if an individual fisherman is aware that a particular species is being depleted, he has little incentive to conserve, because he may feel that his actions do not mean much in the aggregate and that what he leaves behind is likely to be taken by another fisherman anyway. The problem is akin to the use of air and water for waste disposal. Since there are no markets to optimally allocate these open-access resources, some type of non-market solution becomes needed.

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A number of U.S. fisheries have now been exploited beyond these maximum sustained-catch levels. According to the National Marine Fisheries Service, 16 species have been depleted—including had-dock, menhaden, sea herring and yellowtail flounder—and another 65 species are being exploited at or near the maximum sustained yield. While domestic fleets have accounted for much of this overfishing, foreign vessels have played an even greater role.

Problem: foreigners

Soviet, Japanese, Polish, German, Bulgarian, Korean and other foreign ships have all joined the game and, according to some reports, now extract at least as much fish from U.S. coastal waters as domestic vessels do. Indeed, U.S. fishermen find it difficult to compete with foreign fishermen, even in U.S. coastal waters. In particular, the Soviets off the East Coast and the Japanese off the West Coast have developed very efficient systems, sweeping clean large areas of the ocean. Each fleet consists of large numbers of fishing vessels, a huge factory ship which processes and freezes the catch, and still other ships which transport the catch to home port.

The success of these floating industrial parks is based upon two ingredients generally lacking in the U.S. fishing fleet—a large capital investment, and a labor force willing to

work long hours and stay at sea for extended periods. In many cases, too, a key to foreign success is government subsidization of ship construction and fish marketing. Thus, over a single recent decade the Japanese catch increased 68 percent and the Soviet catch 93 percent. As a result, Japan led the world in 1973 with 16 percent of the total catch, followed by the Soviet Union with 13 percent—and the U.S. with only 4 percent.

Throughout this period, the U.S. government could regulate the activities of American fishermen through state or federal law, but it had no control over others fishing for the same stocks. Up to the present, this problem was handled through negotiations with other nations fishing in U.S. coastal waters—the U.S. is currently party to 11 bilateral and 10 multilateral fishing agreements. However, most of the U.S. industry became seriously dissatisfied with the effectiveness of these agreements, and pressed for unilateral action to extend U.S. jurisdiction to 200 miles. While the extended U.S. jurisdiction will now make it easier to establish consistent and unified management plans, the rational use of fishery resources will depend upon how well these plans are designed and implemented.

Extended jurisdiction

The extension of the U.S. exclusive fishing zone to 200 miles—and even more, the imminent extension of fishing zones for all countries

through the decision of the Law of the Sea Conference—will probably affect both the total magnitude and the international distribution of fish supplies. Once individual nations gain control over their coastal fisheries, their actions initially are likely to reduce the world's catch of fish, because of an attempt to rebuild stocks to levels which can generate larger sustained yields. Also, while national fishery policy would probably permit foreign fleets to harvest those portions of optimum sustained yields which domestic fishermen are unwilling or unable to harvest, local licensing bodies would tend to favor domestic fishermen and exclude foreign fleets even when a surplus harvest was available. Those foreign vessels that wish to continue fishing in their traditional fishing areas off others' shores will have to purchase permits and licenses, and of course will have to pay fines or lose their catches if they are caught fishing without permission—all of which will raise the cost of fishing.

Overall, these factors would tend to push up the world price of fish in the short run, assuming no decline in the world's demand for fish. However, once stocks are rebuilt and the international licensing scheme is put into place, catches should rise again and prices should gradually ease.

The distribution of costs and benefits from carving the sea into 200-mile fishing zones may be quite uneven, both domestically and in-

ternationally. Though only 16 percent of the total U.S. catch of \$1,023 million comes from outside its own 200-mile zone, almost 85 percent of the \$152-million tuna catch comes from international waters off foreign shores. The tuna industry thus stands to lose considerably from the new international order, which helps explain its strong opposition to the recent Congressional legislation. On the other hand, the average American consumer may be little affected, because less than half of one percent of his total budget is devoted to fish.

Japan, in contrast, is very vulnerable to the proliferation of 200-mile fishing zones. First of all, fish is very important in the Japanese diet, so any price increases from regulated fishing would deal a relatively hard blow to the Japanese consumer. More importantly, about 80 percent of the Japanese catch comes from foreign waters, which places a large portion of the Japanese fishing industry in a very precarious position.

In the best-case scenario, all coastal nations would adopt comprehensive management plans designed to conserve resources, and would then allow foreign fleets to harvest that portion of the optimum sustained yield which domestic fleets were unable or unwilling to take. This approach, if followed, would ease considerably the transition to the new international order of the sea.

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