

1. Introduction

Fish are an important part of man's pattern of survival.

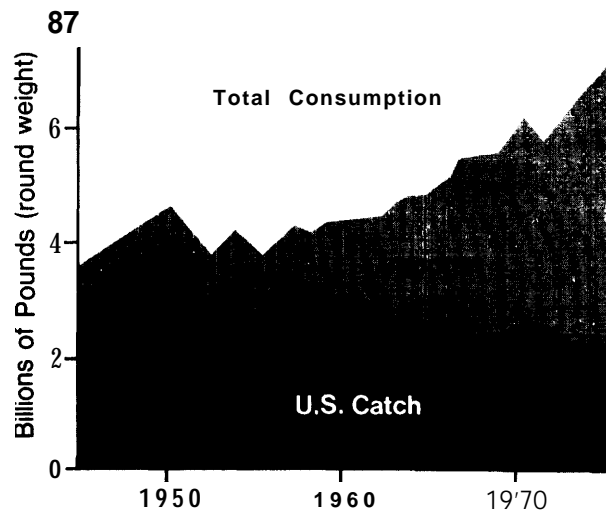
Directly—that is, fish and shellfish consumed by man—fish provide about 14 percent of the world's supply of animal protein. The Food and Agricultural Organization (FAO) of the United Nations has estimated that every man, woman, and child in the world consumes an average of 26 pounds of fish each **year**.¹ However, that figure varies greatly from country to country, ranging from only a small fraction-of-a-pound per person per year in Afghanistan to more than 86 pounds per person per year in Iceland. In the United States, the average consumption per person is about 12 pounds of fish annually. z According to FAO the consumption of fish is likely to increase through 1990 at a growth rate higher than that of beef, pork, vegetables, cereal, or milks This suggests increasing pressure on already heavily utilized ocean resources worldwide in the next 10 years,

Indirectly—in the form of meal and oil fed to pigs and chickens which are in turn eaten by man—fish provide another 10 or 11 percent of the world's animal protein.⁴

Twenty years ago, the United States was the world's second largest fishing nations But by 1974 American fisherman were fifth, catching only 4 percent of the world's supply of fish.⁶ In that time, the U.S. catch had dropped only about 8 percent, but the catch of some foreign nations had increased by as much as 250 percent.⁷ In 1974, the world catch was nearly 70-million metric tons. s Much of that was coming

from waters off the United States where, within 200 miles of the coasts, about one-fifth of the world's fishery resources are located.⁹ Worldwide, the National Oceanic and Atmospheric Administration has projected that the oceans can sustain an annual catch of only 100-million metric tons, a catch figure they expect to be reached by 1980.¹⁰ Already, increased fishing has caused acute pressure on some stocks, depleting the supply and threatening their existence. For example, off the coast of the United States about 20 species of fish and shellfish are believed to be seriously depleted¹¹ (see figures 1 and 2).

Figure 1
U.S. Landings, Imports,
and Consumption of
Edible Fishery Products



Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration

**Figure 2
Overfished Species¹ of
Importance to U.S. Fisheries
as of August 1975**

| | |
|-----------------------|-------------------------------|
| Abalones ² | Pacific salmon ² |
| Alaska pollock | Pacific sardine |
| Atlantic herring | Pandalid shrimps ² |
| Atlantic menhaden | Pismo clam ² |
| Atlantic salmon | River herrings ² |
| Atlantic sea scallop | Rockfishes ² |
| Flukes ² | Sea run trout ² |
| Haddock | Striped bass ² |
| Halibut | Yellowfin sole |
| Oysters ² | Yellowtail flounder |

¹Some stocks have been so reduced through overfishing, or any other man-induced or natural cause, that a substantial reduction in fishing effort must be achieved so that stocks can replenish themselves to produce optimum yield.

²Not all stocks depleted.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration

Historically, access to fishing grounds has been uncontrolled. Fish have been a common-property resource, available to any and all nations and individuals who seek to hunt them and harvest them. This common-property nature has prevented any one nation from assuming management control and has made regulation of the catch difficult. Conservation of stocks has not been successful in spite of international agreements and treaties with other fishing nations.

As a result, technically sophisticated foreign fishing fleets have taken a heavy toll in traditional U.S. fisheries, particularly off the northeast and northwest coasts where there are several species of prime interest to U.S. com-

mercial fishermen and consumers. The decline of the New England haddock fishery which was reduced from a major commercial enterprise in 1950 to a relatively small activity today, is a principal example of the effects of overfishing within 200 miles of the U.S. coasts. The U.S. haddock catch in 1950 was 20 times larger than it was in 1974.¹² Total catch of other important commercial species, such as flounder and ocean perch, also declined as overfishing reduced the amount of stock available (see figure 3).

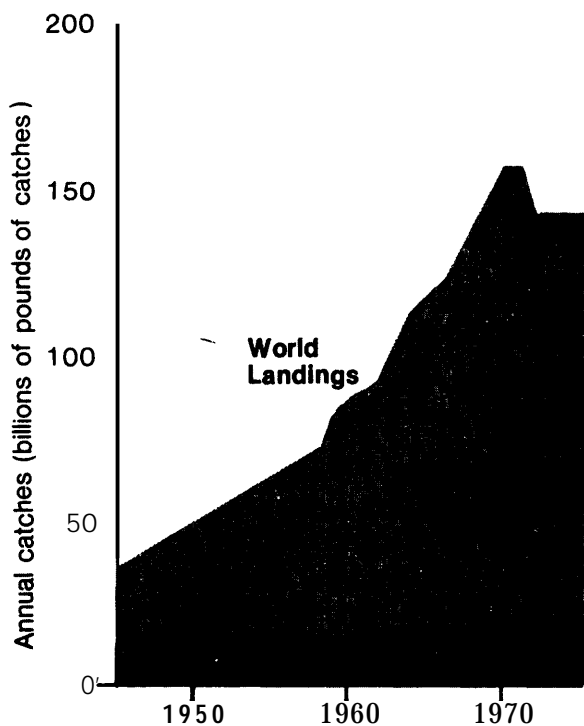
In response to widespread public concern about overfishing, the U.S. Congress moved to adopt a 200-mile fishery zone to give the United States power to limit or exclude foreign fishing off its coasts and impose on both foreign and U.S. fishermen responsibilities for conservation and utilization of the fishery resources within the zone.

In passing the Fishery Conservation and Management Act of 1976 (P.L. 94-265), Congress officially noted that certain stocks of fish off the coasts of this country "have been overfished to the point where their survival is threatened and other such stocks have been so substantially reduced in number that they could become similarly threatened."¹³

The law made it the policy of the United States to establish a "workable and effective" fisheries management and conservation program based on the best scientific information available, involving interested States and citizens, and drawing on Federal, State, and academic capabilities to carry out research, administration, management, and enforcement.¹⁴

On March 1, 1977, the law went into effect. A beginning was made toward reaching the difficult goals of conserving, managing, and developing the fisheries off U.S. coasts. To accomplish these goals, the law establishes Regional Councils--groups which reflect the expertise and interests of the States along each

Figure 3
Historic World and
U.S. Landings of
Fish and Shellfish



Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration

fishery—to oversee implementation of the law and become managers of the fish and shellfish resources off their coast. Already these councils have been involved to some extent in the National Marine Fisheries Service work to set some 1977 catch limitations and draw up preliminary regulations.

But this is just the outline of a system which must be developed in future years as the councils, Government, fishermen, and the Nation gain better information and understanding for their job.

The task of husbanding the U.S. fishery resources is a major one. At stake is not only a major supply of animal protein, but also an American industry which provides employment for more than a quarter-of-a-million people¹⁵ and has a \$6.5 billion impact on the U.S. economy.¹⁶ It is a resource used by foreign fishermen from more than 17 nations,¹⁷ U.S. commercial fishermen, and an estimated 30 million¹⁸ recreational fishermen, whose catch is roughly equal in size and value to the catch of edible fish by U.S. commercial fishermen.¹⁹

Managing such a resource will involve scientific, social, and political problems for many years to come. Not the least of these problems is the fact that implementation of the law will require the use of much information about all phases of the fishing industry—information which has not been consistently collected and analyzed in the past. But if the principles established by the Fishery Conservation and Management Act are pursued, there is substantial promise of a rational system for resolving conflicts between the needs of foreign, domestic, and recreational fishermen and the need for conservation.

The major problems relate to how the United States will determine and enforce new management regulations, how it will build the information base necessary for reaching management decisions and laying conservation strategies, and how it will revitalize the existing fishing industry and develop new opportunities. This report addresses some of those problems which are amenable to possible solution by actions of the U.S. Congress. Some potential actions for Congress and appropriate Federal agencies are identified.

Neither the Fishery Conservation and Management Act or this report cover all problem areas or possible solutions. For example, many species of inshore and migratory high seas fisheries are still unregulated and

may be subject to increasing fishing pressures if stronger controls are placed on stocks in the 200-mile zone. Tuna is the major commercial stock which is excluded from U.S. jurisdiction as a highly migratory species. The Act does,

however, raise considerable hope for restoring stocks and encouraging the American fishing industry to expand. Some of the potential new opportunities which may result are also discussed in this report.



National Oceanic and Atmospheric Administration Photo

Fishermen bail their catch from a purse seine into the hold of the boat,