

# Economic and Trade Strategies in World Fisheries

Robert A. Siegel and Richard S. Johnston, Editors

## Introduction

This special section of the *Marine Fisheries Review* contains the edited proceedings of a symposium held on 16 September 1987 at the annual meetings of the American Fisheries Society in Winston-Salem, N.C. The symposium was sponsored by the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration, and the International Institute of Fisheries Economics and Trade. The aim of this session was to provide an overview of several international trade issues that affect the development of fisheries economic policy. Thus, the general areas of discussion included: The role of fisheries in the U.S. balance of trade, current negotiations on fisheries trade and tariffs, and U.S. and foreign economic trade strategies and policies.

In the past 10 years, there has been a significant increase in world trade in fishery products. Between 1976 and 1985, world catches grew from 69 million metric tons to 85 million metric tons, while the share of production that entered international trade rose from 29 percent to 35 percent. Over this period, developing countries have played a larger role in the growth of world fisheries trade. Their share of the volume of world exports of fishery commodities increased from 33 per-

cent to 42 percent. These figures suggest a greater interdependence among countries in world fisheries trade.

The general theme of the papers in this session is how the international distribution of fishing rights are changing along with the impacts on global markets. A major factor causing a change in fishing rights is extended jurisdiction.

The paper by Gordon R. Munro discusses the analytical framework used by economists to evaluate extended jurisdiction resource management issues. The paper focuses on the benefits of extended jurisdiction arrangements for coastal states and distant water fishing nations (DWFN's). He evaluates several cooperative arrangements where the participation between the domestic fleet and DWFN's depends on their comparative advantage in harvesting and processing fishery resources. Munro also provides a general discussion of the arguments for and against phasing out distant-water fishing fleets and of the potential licensing/access fee arrangements. He suggests that a principal-agent framework may reveal elements of the arrangements that govern DWFN's participation in a coastal state's fisheries. Thus, a coastal state has several issues to consider in determining the optimal mix of access terms and conditions with DWFN's.

The paper by Lipton and Siegel examines some of the factors that affect U.S. trade in seafood products. One of the major goals of the U.S. Department of Commerce is to reduce the U.S. trade deficit. Seafood products are a significant contributor to the trade imbalance. In 1986, the United States had a trade deficit in fishery products of \$6.2 billion.

The paper indicates that U.S. demand for seafood products will continue to increase. Domestic fisheries in the United States will not be able to supply the growing markets for shellfish, salmon, and certain groundfish. Thus, imports are likely to increase and worsen the trade deficit, unless depressed domestic stocks in U.S. fisheries are rebuilt, substitutes are developed for traditional fishery products, or aquaculture becomes profitable.

The paper by Larry Snead reviews the evolution of U.S. international fisheries policy as it relates to access rights. Passage of the Magnuson Fishery Conservation and Management Act of 1976 (MFCMA) resulted in a radical change in the pattern of distant-water and domestic fishing operations off the U.S. coast. Similarly, the extensions of 200-mile exclusive fishing jurisdictions by other nations has affected U.S. distant-water fisheries.

In recent years, allocations to foreign nations have declined from

more than 2 million metric tons in 1977 to less than 200,000 metric tons in 1987. With the phase-out of foreign fishing, increased emphasis is being given to access to resources in other countries' waters, the problems surrounding straddling and transboundary stocks, and fisheries trade. The United States is working out solutions to these difficult issues through international negotiations and cooperation with other countries.

The change in ownership of fish stocks from international commons to the coastal state has resulted in "resource winners and losers." Giulio Pontecorvo examines whether the "transfer of assets" has resulted in income gains in three neighboring countries: The United States, Canada, and Mexico. Pontecorvo emphasizes that the existing data base on factors of production such as capital and labor is quite limited. This complicates the analysis and makes the estimates somewhat tentative. Nevertheless, he indicates that the three countries gained substantial benefits from extended jurisdiction. However, with more labor and capital present in the fishery, both

inefficiencies and increased economic risk may have resulted.

Terry and Queirolo provide an overview of the international trade issues that affect the management of the groundfish resources off the coast of Alaska. The stocks of traditional species (salmon, crab, and halibut) are unique in that the potential product supply is large enough to significantly affect market prices. An important trade issue is whether the United States can develop the processing capacity—both at-sea and shoreside—to compete profitably in world groundfish markets. Another issue is the allocation of groundfish between domestic and foreign fishing fleets.

These issues are analyzed in the context of world markets. In particular, Terry and Queirolo examine the size of the major markets and trace the price linkages. They argue that for cod, prices are determined in international markets and that, therefore, the U.S. and Japan take these prices as "given." Furthermore, the authors consider how trade patterns will be affected by a growing U.S. dominance of the Alaska groundfish fishery and

suggest that price-cost relationships in the domestic Pacific cod fishery are likely to be less favorable in the future than they are now.

The paper by Queirolo and Johnston takes a broad look at new patterns of international trade and management regimes that have resulted from extended jurisdiction. They develop a conceptual model that examines the production possibilities of coastal states that have declared an extended jurisdiction zone and countries that have had their distant water fishing fleets excluded from their traditional fishing grounds.

The authors extend the analysis of the economic impacts of extended jurisdiction by examining how coastal states and distant-water fishing fleets can both benefit from cooperative harvesting and processing agreements. Of particular interest is the discussion of the Americanization of U.S. fisheries and the U.S. push to become a major exporter of fishery products. The paper reviews the progress of an international cooperative study to investigate supply and demand relationships in world groundfish markets.