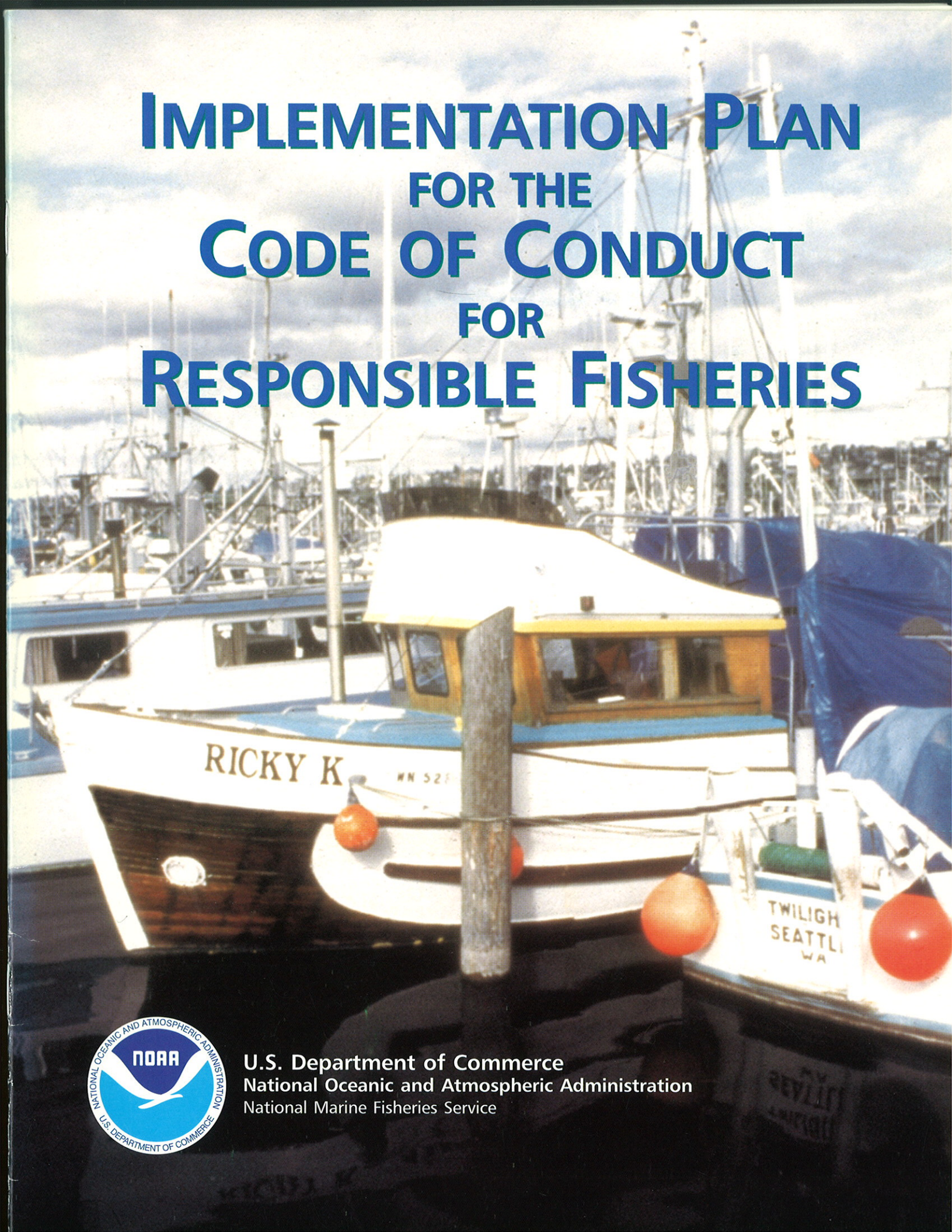
IMPLEMENTATION PLAN FOR THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

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PURPOSE

This document proposes a plan for implementing the United Nations Food and Agriculture Organization's (FAO) Code of Conduct for Responsible Fisheries (Code). More specifically, this is a National Marine Fisheries Service (NMFS) implementation plan that responds to the Code's provisions in areas of NMFS jurisdiction or major involvement. The action steps in the plan address the key elements of sustainable marine fisheries, including:

- marine fisheries resources;
- resource habitats;
- the users of the resource;
- marine aquaculture; and
- some of the tools that NMFS uses to achieve its objectives and meet its obligations in these areas, especially fisheries science, international agreements, and trade activities.

The NMFS implementation plan is designed to meet or make major and measurable progress toward certain fundamental goals with respect both to the resources and the users of those resources. These long-term goals may be summarized as follows:

1. healthy wild resources and habitats that support those resources;
2. a growing, environmentally sound marine aquaculture industry; and
3. enhanced social and economic benefits to the Nation provided by viable commercial and recreational fishing industries.

Although the Code is an international agreement, this plan deals primarily with its implementation in the domestic marine fisheries of the United States. In that capacity, the provisions of this plan apply to all sectors that use or culture U.S. marine fish resources, including commercial and recreational fishermen, the marine aquaculture industry, and processors and marketers of these resources. In this regard, NMFS notes that approximately 80 percent or more of world fisheries are conducted in waters under the jurisdiction of a coastal state.

Two exceptions to this emphasis on domestic implementation are the sections that deal with the UN fisheries agreements and trade, which are included because they are either integral parts of the Code or addressed in detail in the Code.

Still, the Code is, by definition, an international agreement, and there are many themes that need to be addressed internationally as well as domestically. In fact, NMFS is involved in many initiatives to promote responsible/sustainable fisheries globally. While these activities are not discussed in this document (save the UN agreements and trade), they may be listed:

- support for new international fishery management initiatives (Pacific tuna, turtles, sharks);
- a U.S.-hosted technical experts consultation, to be held in early 1998, on managing fishing capacity;
- dissemination of technical information necessary for making progress toward sustainable fisheries practices (turtles, dolphins, marine mammals, seabirds, and coral reefs); and
- support for international initiatives (consultations, studies, and workshops) dealing with various trade and economic aspects of sustainable fisheries, in the APEC Fisheries Working Group; the OECD Fisheries Committee; the WTO Committee on Trade and the Environment; and the FAO Committee on Fisheries.

Implementation of the Code will be achieved through the marine fisheries activities and policies of NMFS that are provided for in our legislative mandates, especially the October 1996 amendments known as the Sustainable Fisheries Act, and our recently finalized, long-term fisheries strategic plan.

Accordingly, elaboration of this plan proceeds from a fundamental assumption:

> ***that NMFS, through its legislative mandates, strategic plan and programmatic activities, seeks to achieve practically all the same goals, or at least make significant and measurable progress toward them, as the Code.***

Given the domestic focus of this document, the NMFS Code of Conduct implementation plan is tailored to the unique features of U.S. marine fisheries. These needs and characteristics may not be entirely the same as those in other countries that negotiated and adopted the Code. For that reason, other countries may not choose the same action steps as the United States in their Code of Conduct implementation plans.

Commercial fishing boats tied up at Fisherman's Wharf in Seattle, Washington.

At the same time, it is our hope that this implementation plan will be viewed as a serious, practical, and good faith effort on the part of the U.S. Agency responsible for marine fisheries to implement the Code, and we encourage other countries to do the same.

BACKGROUND

During the last six years, fisheries experts have become increasingly concerned about the overall state and trends in global marine fisheries. After 1989, world harvests seemed to plateau and irregularly decline; evidence increased that a large share of the traditional and highly priced species were overfished or at least fully harvested; some traditional species suffered major stock declines; signs of excess capacity in the harvesting sector were everywhere; disturbingly high levels of bycatch in the capture fisheries sector caused increasing concerns; and habitat degradation, especially of the coastal environment, became a higher priority issue internationally and in many individual nations.

Fisheries analysts at FAO highlighted these issues through the publication of a series of rather pessimistic forecasts. All these issues and concerns came together in the early 1990s when FAO issued papers in preparation for the Conference on Responsible Fishing at Cancun, Mexico in May 1992. At that meeting, it was agreed in the Cancun Declaration that FAO should sponsor and organize consultations on a code of responsible practice in fisheries, and such a document was negotiated in the following two years, and finalized in September 1995.

The Code is organized in 12 articles, of which six address substantive themes:

- fisheries management;
- fishing operations;
- aquaculture development;
- coastal area management;
- post-harvest practices, and trade; and
- fisheries research.

Two international themes that are discussed at length in the Code are: first, two UN fisheries agreements, and, second, a number of trade issues. The UN fisheries agreements deal with the regulation of highseas fishing vessels (the Compliance Agreement) and with the management of fisheries for highly migratory fish stocks and straddling fish stocks (the Fish Stocks Agreement). The Compliance Agreement is in fact an integral part of the Code, while the Fish Stocks Agreement includes much of the same language as the Code.

The second broad international theme — trade issues — is an objective that NMFS, in cooperation with the U.S. trade agencies, has pursued in the past and continues to promote in a number of international fora.

Recreational fishing is popular in the United States.

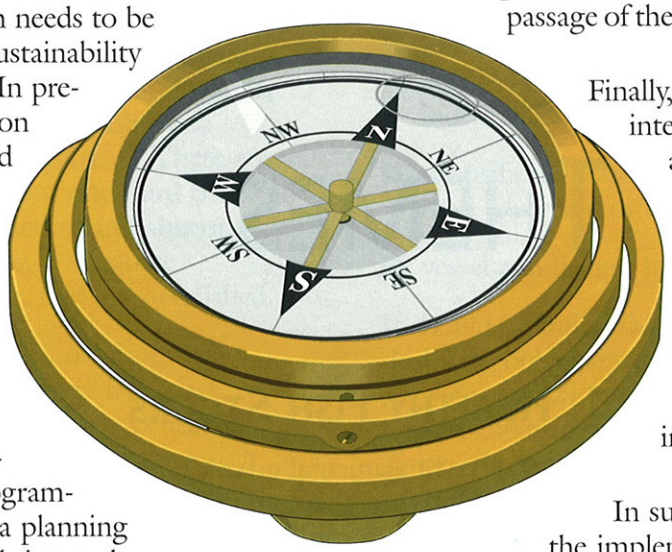
METHOD

The Code is a wide-ranging, comprehensive document that addresses all aspects of fisheries issues. Therefore, its scope includes marine and freshwater fisheries; wild and farmed resources; and harvesting and post-harvest operations. With respect to marine fisheries, the Code addresses most, if not all, of the chief mission areas of NMFS. The only major NMFS programmatic activity that is not addressed in a separate, detailed article is protected resources.

Before we discuss the specifics of the Code implementation plan, the overall NMFS record on marine fisheries issues must be placed in a broader and historical context. During the last two decades since the passage of our basic fisheries law, the United States has made appreciable progress in dealing with these issues, much of it based on the same fundamental principles that were later included in the Code. Since 1976, when the Magnuson Fishery Conservation and Management Act (now known as the Magnuson-Stevens Act) was passed and implemented, the United States Government has:

- established a 200-mile fishery conservation zone, later modified and expanded as an exclusive economic zone (EEZ);
- created an entirely new fisheries management system, based on species-specific fishery management plans that are developed cooperatively by the Department of Commerce and the eight Regional Fishery Management Councils (Councils), the majority of which plans use total catch limits;
- developed 39 Fishery Management Plans (FMP), the majority of which are effectively "multispecies" plans, that collectively govern about three-quarters of all fisheries in the U.S. EEZ;
- begun to implement various types of limited entry systems in many U.S. commercial fisheries;
- initiated efforts to understand and then better manage the levels of capacity in the harvesting sector of the U.S. commercial fishing industry;
- developed definitions of overfishing for U.S. fisheries; and;
- implemented a variety of management measures to estimate and reduce bycatch.

In summary, important progress has been made in the last two decades in many of the substantive areas addressed in the Code. At the same time, it is clear that much needs to be done to strengthen the sustainability of our marine fisheries. In preparing this implementation plan, NMFS has reviewed its marine fisheries strategies and legislative mandates, and prepared a forward-looking document to address its missions in these areas.



NMFS has recently completed a review of its programmatic priorities through a planning process that involves both internal U.S. Government review and comment by all interested constituencies. The Fisheries Strategic Plan was finalized in April 1997 and is designed to guide the Agency's major programmatic missions for the next 5 years.

The Fisheries Strategic Plan is organized around three programmatic areas: (1) sustainable fisheries; (2) recover protected species; and (3) healthy living marine resource habitat. The first (sustainable fisheries) and third (healthy coasts) objectives deal with most of the specific issues addressed in the Code, while the second objective (recovered protected species) is included in the Code as a management objective, but is not treated in the same detail as in the Fisheries Strategic Plan. Therefore, protected species issues are addressed briefly in the sections dealing with bycatch, fish habitats, fisheries science, and trade.

The Fisheries Strategic Plan is the NMFS long-term plan. However, to reach or make meaningful progress toward its objectives, NMFS has to carry out a wide range of specific, mainly research and regulatory activities. Most of these activities are undertaken pursuant to our fisheries management responsibilities, as specified in the Magnuson-Stevens Act, which is periodically updated, or reauthorized, by the U.S. Congress. This reauthorization process last took place in October 1996 with the passage of the Sustainable Fisheries Act.

Finally, NMFS is engaged in international activities in the areas of international fisheries agreements and trade, in cooperation with the Department of State and the U.S. trade agencies, that deal with issues that are taken up in the Code.

In summary, in preparing the implementation plan, we have emphasized the following:

- the requirements of the Sustainable Fisheries Act;
- the NOAA/NMFS Fisheries Strategic Plan; and
- selected international activities that NMFS carries out in coordination with other U.S. Government agencies.

An examination of the above three items and the Code points to nine cross-cutting themes that constitute the body of the NMFS Code of Conduct implementation plan.

These themes are given in the shaded box:

1. **Healthy Fish Stocks.**
2. **Overfished Stocks.**
3. **Overcapitalization.**
4. **Bycatch.**
5. **Marine Aquaculture.**
6. **Fish Habitats.**
7. **Fisheries Science.**
8. **UN Fisheries Agreements, and**
9. **Trade.**

THEMES

1. HEALTHY FISH STOCKS

One of three fundamental goals of the Strategic Plan is sustainable fisheries. This same theme runs throughout the Sustainable Fisheries Act of 1996 (Magnuson-Stevens Act amendments), as the name of the law indicates. The United States defines a "sustainable fishery" as one in which the rate or level of fishing mortality does not jeopardize the capacity of the fishery to produce the maximum sustainable yield (MSY) on a continuing basis. In effect, the sustainable fisheries theme captures most of the "responsible fisheries" principles developed in Code Articles 6, 7 and 8 dealing with "general principles," "fisheries management," and "fishing operations."

Under the sustainable fisheries strategic goal, two key and related objectives are: maintaining healthy fish stocks and rebuilding overfished stocks.

Maintaining healthy fish stocks involves the entire NMFS fisheries management mission. Of the 201 fish stocks falling under the purview of NMFS, scientific information is sufficient for nearly 80 percent (158 stocks) to classify the current level of stock abundance relative to the level that would produce MSY. Of these 158 stocks, 85 (or more than half), are at or above this level and may therefore be termed "healthy," while 73 (or slightly less than half), are currently below the levels that would produce MSY. Information is insufficient for 43 (21 percent) of the 201 stocks with respect to the stock size levels needed to produce MSY, although the current abundance of most of these 43 stocks is low.

The long-term (5-year) plan is to maintain healthy stocks that allow MSY on a continuing basis, and to reduce the level of statistical uncertainty associated with estimates of stock status and biological potential for all stocks. Obviously, the above goals apply both to established and to currently underutilized fisheries for stocks that are biologically healthy.

2. Overfished Stocks

The second broad sustainable fisheries objective — rebuilding overfished stocks — presents a greater challenge. The United States defines overfishing as a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce MSY on a continuing basis. There are currently 73 fish stocks, about one-third of all stocks under NMFS jurisdiction and almost one-half about which we have adequate scientific stock information, that are overfished.

The Strategic Plan calls for eliminating overfishing of these stocks in the next five years, and ensuring that they are rebuilt according to rebuilding schedules that specify a completion date within 10 years, unless the biology of the stock or other environmental conditions dictate otherwise. Accordingly, the Sustainable Fisheries Act adds the key phrases: "... and rebuild overfished stocks" to its basic management objectives and "specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished," to the action steps to be taken in respect to overfished stocks.

To strengthen coordination between the Executive Branch and Congress on this issue, the Sustainable Fisheries Act has also instructed the Secretary of Commerce (on behalf of NMFS) to report annually to the Congress on the status of fisheries under U.S. jurisdiction and "... those fisheries that are overfished or are approaching a condition of being overfished."

The United States Government will address this problem constructively and in a timely manner. In the event that a stock is overfished, the Sustainable Fisheries Act mandates that the appropriate Council develop a plan within one year to end it, and, if that does not happen, the Secretary of Commerce will prepare a plan to eliminate overfishing.

In summary, the rebuilding of overfished stocks is both an objective of the Executive Branch and a long-term legislative mandate. Clearly, eliminating overfishing is a serious objective.

There are a number of potential measures available to help reduce and eventually eliminate overfishing, including (in no order of priority):

- limited entry systems, of which examples are license limitations and moratoria, and individual fishing quotas (IFQ);
- scientifically based and rigorously enforced total allowable catch (TAC) limits; and
- vessel and license buyback programs.

It should be noted that some of these measures deal with both overfishing, the subject of this part (Section 2) of the Code of Conduct implementation plan, and with overcapitalization, the subject of the next part (Section 3). More precisely, limited entry and vessel/license buyback programs address both overfishing and overcapitalization.

Limited Entry Systems

Limited entry systems refer to a number of arrangements that have the effect of reducing the "open access" feature of traditional fisheries. In recent years, NMFS, the Councils, and industry have made appreciable progress in introducing elements of limited access in fisheries in many parts of the U.S. EEZ. The Sustainable Fisheries Act seeks to improve the effectiveness of limited entry systems in several ways. These are discussed later in this implementation plan in Section 3 on overcapitalization.

One type of limited entry system is an IFQ. NMFS has worked with Councils and industry groups to plan and implement three IFQ programs in the (1) sablefish and halibut; (2) surf clam and ocean quahog; and (3) wreckfish fisheries. IFQs support NMFS efforts to reduce overfishing and overcapitalization because IFQs tend to lead both to a reduction in the number of participants in a fishery and to a reduction in the incentive to increase the capacity of each vessel.

However, IFQs have been in place for a short period of time in a few fisheries, and there are enough questions about them that the

Sustainable Fisheries Act has added a moratorium on new IFQs for 4 years, until October 1, 2000. In the meantime, the National Academy of Sciences (NAS) has been designated by Congress to conduct a study of IFQs and assess their effectiveness in addressing the problems of fishing effort and excess capacity. NAS will report on its findings by October 1, 1998.

TAC-Based Management

NMFS will continue to develop science-based TACs in many of the fisheries under its jurisdiction, and enforce those catch limits to the best of its and the Coast Guard's enforcement capability. Obviously, fisheries science plays a key role, and the strategic planning priorities of NMFS with respect to fisheries science are spelled out in Section 7.

License and Vessel Buyback Programs

These programs will control fishing effort, but NMFS believes it is more appropriate to discuss them in the section on overcapitalization.

3. Overcapitalization

Overcapitalization in the fisheries harvesting sector is a major obstacle to progress toward sustainable fisheries, and the Strategic Plan and the Sustainable Fisheries Act both address this problem. Overcapitalization and overfishing are not the same thing, but they are related. Overcapitalization refers here to vessels and gear, or, generally, to investments in catching power, or capacity. Overfishing, on the other hand, includes the use to which the vessels and gear are put, or, stated otherwise, to an excessive rate of harvesting operations. Overcapitalization will tend to lead to overfishing unless there is a strict management regime in place. Therefore, we may say that overcapitalization, or excess capacity, has the potential to create overfishing. The excess capacity issue is an important theme in the Code, especially in Articles 6 and 7.

One of the basic objectives of the Strategic Plan is to "increase long-term economic and social benefits to the nation from living marine resources," with one of the performance measures being to "reduce the number of overcapitalized fisheries and mitigate the impacts of these reductions on fishing communities". Toward this end, one of the strategies that will be employed is to explore the use of all available tools, including the appropriate use of vessel and permit reduction programs where needed, to reduce fishing capacity in overcapitalized fisheries.

These juvenile coho salmon are being studied to determine methods to assist endangered runs of coho salmon.

The Sustainable Fisheries Act directs the Executive Branch to deal more effectively with this complicated issue in a number of ways:

First, the Sustainable Fisheries Act mandates that the Secretary of Commerce form a "task force of interested parties" to study the U.S. Government's role in creating the problem. Accordingly, the task force shall study and report to Congress within 2 years, i.e., by October 1998, "... on the role of the Federal Government in (1) subsidizing the expansion and contraction of fishing capacity in the fishing fleets" that operate in the U.S. EEZ, and (2) otherwise influencing the aggregate capital investments in fisheries."

Second, the Act prohibits the Federal Government — until October 1, 2001 — from guaranteeing new loans "... for the construction of new fishing vessels if the construction will result in an increased harvesting capacity within the U.S. EEZ." This prohibition formalizes and extends the Government's existing policy on loan guarantees.

Third, the Act proposes the creation of a Standardized Fishing Vessel Registration and Information management system on a national and regional basis, which system could be used to monitor levels of capitalization in U.S. commercial fisheries.

NMFS has already taken steps to begin to deal with this difficult issue both domestically and internationally.

In the domestic sphere, NMFS has taken the initial steps to deal more effectively with excess capacity and permit issues in selected Northeast and Pacific Northwest fisheries. In 1995, NMFS spent $2 million on a pilot-test vessel buyback program in the Northeast, and withdrew 11 groundfish and scallop vessels. In 1996, the Congress appropriated $23 million for this program, and NMFS expects that this funding level will be sufficient to remove an additional 75-80 vessels from the target fisheries.

NMFS has also implemented for two years a program to reduce salmon fishing licenses in the Pacific Northwest. In these two years, NMFS has spent $9.2 million to buy back almost 440 salmon troll, gill net, and charter-boat licenses, approximately one-third of the ocean salmon licenses in Washington State.

The Sustainable Fisheries Act strengthens the Administration's tools for dealing in the future with excess fishing capacity. Most significantly, a Fishing Capacity Reduction Program will be established in the Department of Commerce that the Secretary may use to conduct a capacity reduction program in order to:(1) prevent or end overfishing; (2) rebuild stocks of fish; and/or (3) achieve measurable improvements in conservation."

The objective of this provision of the Sustainable Fisheries Act is "... to obtain the maximum sustainable reduction in fishing capacity at the least cost and in a minimum period of time." As explained above, the two available capacity reduction tools are: vessel or permit buyback programs.

Under the Fishing Capacity Reduction Program, funding for vessel buybacks and permit removals will be obtained from the following:

- the Saltonstall-Kennedy fund;
- Congressional appropriations;
- industry fees; and
- State, other public or non-profit sources.

The proposed use of industry fees to help fund a fishing capacity reduction program is new. Under the Sustainable Fisheries Act, the fees must be approved by 2/3 of participants in a referendum, and may not exceed 5 percent of the ex-vessel value of all fish harvested from the fishery for which the capacity reduction program was established.

In addition, the Sustainable Fisheries Act gives the Executive Branch a valuable means that can be used to make these capacity reduction funds operate more effectively. Specifically, the Act directs the creation of a Capacity Reduction and Financing Authority that may be used to guarantee debt obligations of sums borrowed pursuant to fishing capacity reduction fund programs. Under the terms of the Act, these debts may not exceed $100 million per program; the maturities may not be longer than 20 years; and, most significantly, the debts will be repaid by fees paid by industry participants in the capacity reduction program. Industry will become a partner with Government in a cooperative effort to reduce excess capacity in the fisheries sector.

Whatever the extent to which the above programs are utilized in coming years to deal with this problem, it is clear that the Congress and Administration are determined to achieve meaningful results. During the next five years, NMFS will reduce the number of overcapitalized fisheries and mitigate the impacts of these reductions on fishing communities. Obviously, to achieve these objectives, NMFS will be working increasingly closely with the Councils and directly with industry on de-capitalization for many years to come.

The overcapitalization issue also has international dimensions:

NMFS and FAO have agreed to co-sponsor an international meeting and technical workshop, to take place in La Jolla, California, in February 1998, to discuss the excess capacity issue. This technical consultation will review definitions of capacity, methods of measuring it, and the means used by Governments to control or manage it.

It is expected that NMFS will then form a national task force to begin the tasks of (1) assessing the excess capacity problem; (2) determining viable solutions; and (3) assigning realistic timetables for their implementation.

4. BYCATCH

It is increasingly recognized both in the United States and internationally that bycatch can impede efforts to achieve sustainable fisheries in two ways:

First, it increases the uncertainty concerning total fishing mortality which in turns makes it more difficult to assess the status of stocks, to set the appropriate levels of optimum yield (OY) and overfishing, and to ensure that the OYs are attained and that the overfishing levels are not exceeded.

Second, bycatch often precludes other more productive uses of fishery resources.

The Sustainable Fisheries Act added a National Standard for bycatch which states that conservation and management measures shall, to the extent practicable, minimize bycatch and, to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch. Accordingly, NMFS will establish a standardized reporting methodology to assess the amount and type of bycatch occurring in each fishery covered by an FMP.

Once bycatch guidelines are developed and formally approved, they will be incorporated, as appropriate, in individual FMPs. Since the bycatch and discards issue varies dramatically from fishery to fishery, these guidelines will have widely varying impacts on different fisheries.

The bycatch issue has both domestic and international components:

In the domestic sphere, NMFS needs a better, science-based understanding of the matter, and must direct increased efforts at developing the fishery management measures and technological improvements that can mitigate the problem.

In some traditional fisheries, very high levels of bycatch are known to have taken place for many years. A good example is the shrimp trawl fishery in the Gulf of Mexico. The Sustainable Fisheries Act directs the Secretary of Commerce and two appropriate Councils to "assess the impact on fishery resources of incidental harvests by the shrimp trawl fishery."

In addition, the Sustainable Fisheries Act mandates the Secretary of Commerce to complete a program to: (1) develop technologies to minimize the incidental mortality of bycatch in the shrimp trawl fishery; (2) evaluate ecological impacts and benefits of said technology; and (3) submit a report on the above to the Congress.

Substantial progress in addressing the bycatch problem will require the following: (1) better information concerning the levels of bycatch, and the biological, ecological, social, and economic effects of bycatch; (2) better information concerning the biological, ecological, oceanographic, social and economic factors that affect the levels of bycatch; and (3) a better integration and use of such information. The Strategic Plan commits NMFS, in partnership with other management entities, the fishing industry, the academic community, and conservation groups, to make improvements to each of these three requirements.

The bycatch issue also involves several domestic fisheries in the incidental capture and mortality of protected resources. These involve the capture of cetaceans, pinnipeds, sea turtles and sea birds in trap, gill net, and trawl fisheries. NMFS is working to reduce or eliminate bycatch through use of appropriate technologies, such as turtle excluder devices (TED) or modification of fishing gear and fishing practices. This is already occurring in the case of sea turtle bycatch in the shrimp trawl fishery where NMFS requires the use of TEDS in its domestic fishery and is transferring this technology to other nations.

In addition, NMFS continues to work with nations fishing for tuna in the Eastern Tropical Pacific Ocean to develop methods to reduce the take of dolphins and to monitor incidental capture in the tuna purse seine fishery. As other solutions are developed, NMFS will share them with interested nations.

NMFS gear specialists work to develop netting that allows non-target species to escape without harm.

The bycatch/discard issue also has important international ramifications that the United States will address. Under the Sustainable Fisheries Act, the Secretary of State, in cooperation with the Secretary of Commerce (and the technical support of NMFS), "shall seek to secure an international agreement to establish standards and measures for bycatch reduction that are comparable to the standards and measures applicable to United States fishermen" for appropriate fisheries.

5. Marine Aquaculture

Marine aquaculture is the propagation and rearing of aquatic organisms in controlled or selected environments for commercial, recreational, or public purposes. Such organisms are raised primarily to supply seafood for human consumption, but they can also be used to enhance wild fish stocks, for bait production, in fish culture for zoos and aquaria, and for rebuilding of populations of threatened and endangered species.

U.S. demand for seafood is expected to increase by 1.4 million tons annually by the year 2000 due to population growth alone. Aquaculture can help to meet this demand by aiding the rebuilding of wild stocks, thus increasing the yield from their harvest, and by supplementing this harvest with additional seafood products. While marine aquaculture is not a substitute for wise management of wild fish stock fisheries, it is a vital tool for meeting the growing demand for seafood in the next century, and will play a significant role in the future of NMFS.

Worldwide, aquaculture is growing rapidly and accounts for an increasing share of food fish supplies. In the United States, however, domestic aquaculture supplies only 5.9 percent of total seafood needs, compared to 17 percent worldwide. In this sense, aquaculture in the United States is in its infancy.

More recently, the FAO World Food Summit, held in December 1996, endorsed the Rome Declaration on World Food Security and a Plan of Action that highlight the world's growing food needs. Clearly, aquaculture is an increasingly important source of food fish supplies, and was so recognized in the World Food Summit. FAO reports that production of seafood products for human consumption must increase by approximately 20 million tons, or 28 percent, over the 1993 level in order to maintain present per capita fish consumption levels.

The World Food Summit Plan of Action included, in the action steps that Governments and industry should undertake, a non-binding obligation to:

> ***"promote development of environmentally sound and sustainable aquaculture (that is) well integrated into rural, agricultural, and coastal development"***

Similarly, the Code deals with aquaculture in detail in Article 9 ("Aquaculture Development"), and stresses the need for increased global production of food fish from environmentally sound aquaculture operations.

NMFS supports all the FAO goals agreed to at the World Food Summit and in the Code.

Through scientific research and technology development, NMFS can play a significant role in the development of robust and environmentally sound marine aquaculture. Research in such areas as siting, species selection, disease control, and others can contribute to the growth of U.S. marine aquaculture. It can also help mitigate the potential detrimental effects of marine aquaculture on marine ecosystems and on the genetic integrity of wild stocks.

In the next five years, NMFS will:

- promote the commercial rearing of at least seven new species;
- reduce the time and cost of permitting environmentally sound marine aquaculture ventures;
- provide financial assistance for environmentally sound marine aquaculture ventures;
- identify areas in the U.S. EEZ suitable for environmentally sound marine aquaculture development; and
- develop and implement environmentally sound marine aquaculture technologies and practices.

This NMFS strategy will be implemented in cooperation with other U.S. agencies involved in aquaculture policies and programs. The overall U.S. aquaculture planning and coordination mechanism is the Joint Subcommittee on Aquaculture (JSA), including the Departments of Agriculture, Interior, and Commerce (NMFS). NMFS has worked on aquaculture plans within the JSA context for more than a decade, and will continue to do so. The JSA is expected to issue a U.S. aquaculture development plan in the near future.

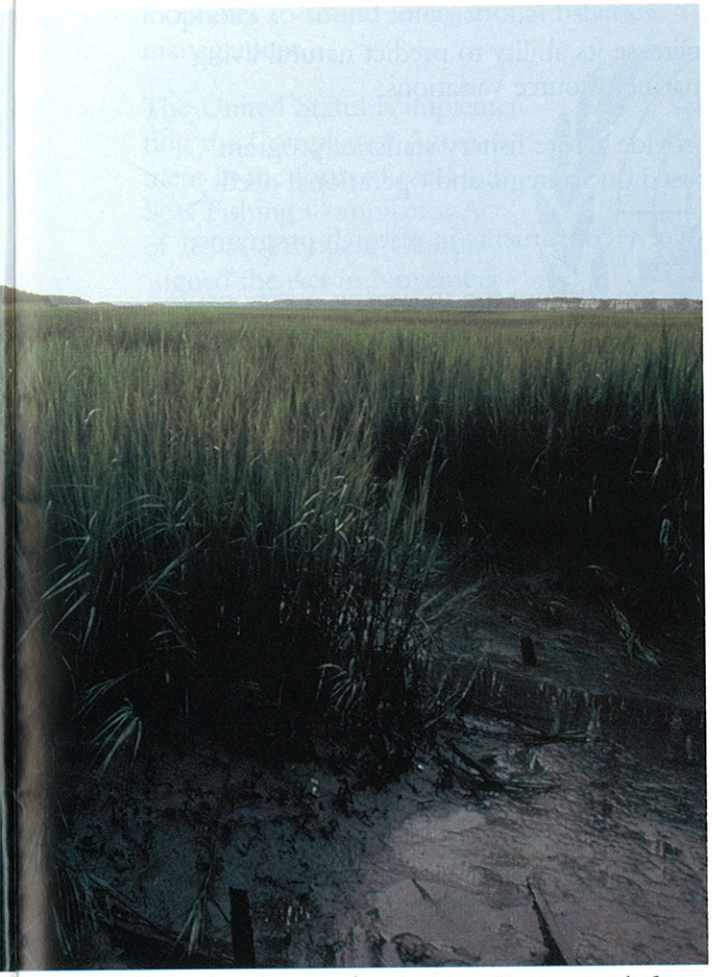
6. Fish Habitats

The vital role of healthy habitats in making sustainable fisheries possible has received increasing attention in recent years, and the habitat issue is featured as an objective in the Strategic Plan. The same issue, "integration of fisheries into coastal area management", is treated in Article 10 of the Code of Conduct.

The Strategic Plan calls for a long-term goal of no net loss of living marine resource habitats:

- where habitats are still healthy, NMFS will use its influence with the State and other Federal agencies to prevent their degradation;

- where habitat loss has already occurred, NMFS will work to restore the habitats; and
- where coastal areas were previously unavailable or inadequate for use by living marine resources (LMR), NMFS will seek, where appropriate, to create habitats that are available to and may be used by LMRs.



Coastal ecosystems are vital breeding grounds for fish and shellfish.

Over the next 5 years, NMFS expects to begin to make meaningful and measurable progress toward the above long-term goals. Habitat loss should be reduced to insignificant levels, and NMFS efforts to restore and create new habitats shall have begun in earnest, with the twin goals of offsetting unavoidable human-caused losses and moving toward no net loss on a national level.

Habitat considerations shall form an integral part of the entire fisheries management process. Accordingly, in the Sustainable Fisheries Act, the Secretary of Commerce, on behalf of NMFS:

- shall establish "... guidelines to assist the Councils in the description and identification of essential fish habitats in fishery management plans ...;" and
- in response to actions by any other Federal or State agency that would adversely affect essential fish habitats, shall recommend to such agency measures to conserve such habitat.

Habitat programs will be driven by a wide range of scientific, technical, and regulatory action steps. NMFS must identify vital fish habitats; establish an inventory of LMR habitats; and monitor trends in habitat availability. With this information, NMFS can effectively meet its regulatory responsibilities, mainly in partnership with other U.S. government agencies, such as the U.S. Army Corps of Engineers, the Federal Energy Regulatory Commission, and various State agencies.

7. Fisheries Science

Sound science is the foundation for the design and implementation of effective approaches in all the policy areas reviewed in this plan. It is critical that NMFS have the best available scientific information on the following: (1) the status of fisheries populations; (2) the changes in their status which will occur over time as the result of environmental changes, fisheries exploitation, and any other natural and human factors that affect them and their habitats; and (3) the benefits that these fisheries will provide to the Nation under alternative harvest and management strategies.

The need for the best available science is uncontested, and this priority is treated as a separate objective in the Strategic Plan and discussed in Article 12 of the Code.

The critical role of fisheries science in all aspects of the NMFS mission is underlined in the Strategic Plan's Vision. "Credible high-quality science" will support the full range of the NMFS mission and serve to minimize risks in management decision-making.

Reliable, up-to-date, and accurate scientific information is required for fisheries whether the stocks on which they are dependent are

considered to be healthy, overfished, or of uncertain status. For the healthy stocks, the information is vital to ensure that NMFS can continue to manage them on a sustainable basis; for the overfished stocks, the information is a necessary foundation for the rebuilding plans; and for the stocks of unknown status, NMFS is committed to reducing the uncertainty (in conformity with the Code of Conduct's precautionary approach). Whatever the status of the stock, science is the best means for developing quantitatively measurable yardsticks for managing the resources under the jurisdiction of NMFS, another key theme in the Strategic Plan.

Ensuring the highest quality fisheries science requires attracting a world-class scientific staff, maintaining state of the art data collection/analysis capability, and supporting long-term research programs.

During the next 5 years, NMFS will:

- expand and improve its system of peer review;
- improve its professional standards for research and scientific advice;
- implement policies for ensuring the integrity and independence of science;
- implement a NOAA research vessel replacement plan;

- develop new science-based resource assessment and management techniques;
- improve its data collection and analysis techniques and systems;
- improve its fishery management data systems;
- increase its ability to incorporate economic and social factors into decision-making;
- increase its ability to predict natural living marine resource variations;
- provide a core fishery statistics program based on strategic and operational needs;
- involve constituents in research programs;
- provide a forum for answering questions and educating user groups on how research is conducted;
- develop a new series of reports and presentations to communicate scientific results in simplified language;
- require various fisheries grant programs to solicit input from external scientists; and
- participate in international scientific initiatives.

8. UN Fisheries Agreements

Two recently negotiated UN international fisheries agreements are closely associated with the Code of Conduct: first, the Compliance Agreement, which the United States largely initiated, which is an integral part of the Code of Conduct; and, secondly, the UN Fish Stocks Agreement, much of whose language is the same as in appropriate parts of the Code of Conduct.

Fundamentally, these two UN agreements embody a growing international consensus on the need to manage more effectively fisheries resources that do not dwell exclusively in waters under the jurisdiction of one coastal state. Particularly important from the U.S. point of view is the fact that these agreements incorporate for the first time the precautionary approach.

Compliance Agreement

This UN agreement was negotiated mainly to prevent the circumvention of international fisheries regulations by "re-flagging" vessels under the flags of States that are unable or unwilling to enforce such measures. As such, the Compliance Agreement, when ratified and enforced, will close one of the last major loopholes to sound international fisheries management.

The United States is implementing the Compliance Agreement in the form of the High Seas Fishing Compliance Act of 1995. President Clinton signed the Act in November 1995, and the United States immediately took steps to begin its domestic implementation. The Compliance Agreement will come into force when it is accepted by 25 signatories, and, thus far (June 1997), nine nations (including the United States) have accepted.

The major U.S. responsibility that flows from this agreement is the obligation to license and control all U.S.-flag fishing vessels that operate on the high seas. Under the Compliance Agreement and the enabling U.S. legislation, these vessels must receive appropriate permission to operate in these fisheries. To date, under the High Seas Fishing Compliance Act, NMFS has approved licenses for about 750 U.S. fishing vessels in a number of Atlantic and Pacific Ocean fisheries.

Fish Stocks Agreement

The United States signed in December 1995 and later ratified the UN Fish Stocks Agreement, a separate arrangement that implements provisions of the UN Convention on the Law of the Sea relating to the conservation and management of straddling and highly migratory fish stocks. NMFS and the Department of State have decided to implement its provisions as soon as possible and appropriate in various international fisheries management organizations and arrangements, and to urge other countries whose nationals are involved in fisheries for straddling and highly migratory fish stocks to do the same.

Thus far (June 1997), 13 signatories to the UN Fish Stocks Agreement (including the United States) have ratified it, and a total of 30 countries must ratify for the agreement to enter into force.

The major elements of the UN Fish Stocks Agreement — the precautionary approach; transparency; conservation and management principles; fishing by non-members; compliance and enforcement; and provisions dealing with new members of international conservation regimes — are the same as in the Code of Conduct.

The United States has prepared a report that addresses the implementation of provisions of the UN Fish Stocks Agreement in certain regional international fishery organizations, and distributed this report to a large number of governments and to five such regional fisheries management organizations. These organizations are: (1) International Convention for the Conservation of Atlantic Tunas; (2) Northwest Atlantic Fisheries Organization; (3) Inter-American Tropical Tuna Commission; (4) Central Bering Sea (Donut Hole) Agreement; and (5) Convention on the Conservation of Antarctic Marine Living Resources.

The United States believes that Members of regional international fisheries management organizations will eventually have to implement still other provisions of the UN agreements, including those relating to dispute settlement, data collection, by-catch reduction, excess fishing capacity, and the open access problems for fisheries on the high seas. These latter items are all implicitly or explicitly included in the Code.

9. TRADE

Article 11 of the Code of Conduct deals with "post-harvest practices and trade". As the title suggests, much of Article 11 does not deal with trade rules or principles in the strict sense, but with a wide variety of "post-harvest practices".

The Code's provisions on "post-harvest practices" include guidelines on a number of issues, e.g., (1) reduction of post-harvest losses and waste; (2) increased human consumption use of the resource; (3) conformity with sustainable development; and (4) the free exercise of consumer choices.

It should be noted at the outset that the United States made the following statement for the record regarding those provisions of Article 11 that address WTO rules and principles:

> *"With respect to the trade-related provisions of the Code, the United States understands that these are not intended to add to or diminish the rights and obligations of WTO Members under the WTO Agreement. The United States views this language as a loose paraphrase of the WTO Agreement. Furthermore, since there is some possibility of inconsistency between the trade-related language of the Code and obligations under the WTO Agreement, the United States understands that the Code intends the language of the WTO Agreement to be dispositive. Furthermore, since the Code is intended to paraphrase the WTO Agreement, and since the WTO Agreement is much more detailed, the United States is of the opinion that there is no need for the elaboration of technical guidelines by the FAO Secretariat for the trade-related provisions of the Code."*

Customer reviews seafood counter. Courtesy of Sutton Place Gourmet, McLean, Virginia.

Some of the trade issues addressed in Article 11 do involve formal trade rules and principles that are embodied in the various World Trade Organization (WTO) agreements. The most important of the Code's trade-related provisions that are already addressed in the WTO Agreements are: (1) trade liberalization; (2) product safety and health; and (3) the WTO consistency of trade measures implemented for conservation purposes.

Trade Liberalization

While it is not a trade agency, NMFS has consistently promoted the liberalization of trade in fisheries products and will continue to do so in the future. This generic activity is undertaken by NMFS in cooperation with the U.S. trade agencies, in particular, the Office of the United States Trade Representative (USTR) and the Department of Commerce's International Trade Administration.

NMFS has actively promoted trade liberalization in fisheries products in a variety of multilateral and other fora.

First and foremost, it should be noted that NMFS supported trade liberalization in fisheries products over a period of several years in the recently completed Uruguay Round (UR) and the North America Free Trade Agreement (NAFTA). In the UR negotiations, in particular, the original U.S. goals were to achieve the most comprehensive possible liberalization of trade in the fisheries sector, including tariffs and non-tariff measures, assistance programs, and trade-related aspects of safety and health regulations. When the next trade round takes place under the WTO, the United States is certain to be in the vanguard of countries urging comprehensive liberalization in the fisheries sector.

Multilateral trade negotiations have already yielded significant economic benefits for both developing and developed countries, and the United States has one of the lowest levels of average tariff protection in the fisheries sector.

Since the conclusion of the UR and NAFTA, NMFS has continued to press for the reduction of fisheries sector trade barriers in a host of other international fora. As examples, NMFS has:

- sought to reduce tariff and/or non-tariff barriers in a range of fisheries trade bilaterals with countries like Japan, the European Union, Canada, Australia, and the Philippines;
- proposed long-term fisheries trade and investment liberalization studies in the Fisheries Working Group of the Asia Pacific Economic Cooperation forum;
- supported trade liberalization in both the Organization for Economic Cooperation and Development's Committee for Fisheries and the UN FAO Committee on Fisheries Subcommittee on Trade; and
- urged fisheries trade liberalization in the course of China's application for membership in the WTO.

The overall point is simple: The United States has consistently played a strong role in supporting negotiations leading to reductions in both U.S. and foreign trade barriers in the fisheries sector, and will continue to do so in the future.

Product Safety and Health

The United States is a signatory of the WTO Agreement on Sanitary and Phytosanitary Measures, and fully supports its implementation domestically and internationally.

As a matter of fact, the U.S. Government agencies responsible for seafood product safety, the Food and Drug Administration (FDA) and NMFS, have been engaged in recent years in converting the domestic regulatory system to a new regime based on Hazard Analysis Critical Control Point (HACCP) principles, and providing training to foreign Governments on the HACCP-based approach. In addition, FDA

and NMFS are active participants in the FAO's Codex Alimentarius, a standards-setting organization that provides the necessary technical expertise and assistance in moving toward equivalency of standards in this area.

WTO Consistency of Trade Policies and Measures

The Code of Conduct also addresses generally the consistency between measures affecting fisheries trade and WTO trade rules. As a practical matter, NMFS participates in many international organizations that deal with fishery conservation and protected species issues, and, in some instances, these organizations authorize the use of certain trade measures. An example of a fishery conservation body that now endorses the use of a trade measure is the International Commission for the Conservation of Atlantic Tunas; an example of an international body that deals with protected species issues and is in fact a trade agreement is the Convention on International Trade in Endangered Species.

Trade measures intended to support international fishery conservation and protected species objectives are implemented through domestic legislation, and a number of U.S. laws authorize and/or mandate the use of such trade measures. Examples include the Pelly Amendment to the Fishermen's Protective Act of 1967, the Marine Mammal Protection Act, and the Endangered Species Act.

The Code of Conduct's provisions on trade policy matters clearly subordinate the Code to the WTO. Article 2 (h) (Objectives of the Code) advises that the objectives are, among other things, to:

- "promote the trade of fish and fish products in conformity with relevant international rules and avoid the use of measures that constitute hidden barriers to trade".

And in Article 11 (Post-Harvest Practices and Trade), the Code urges that:

- "measures affecting international trade in fish and fishery products ... are in accordance with internationally agreed rules," (11.2.3);
- "fish trade measures ... should be in accordance with internationally agreed trade rules, in particular the principles, rights and obligations, established in the Agreement on ... Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade" (11.2.4);
- "States should cooperate to develop internationally acceptable rules or standards for trade in fish and fishery products in accordance with the principles, rights, and obligations established in the WTO Agreement" (11.2.13);
- "States should cooperate with each other and actively participate in relevant regional and multilateral fora, such as the WTO, in order to ensure equitable, non-discriminatory trade in fish and fishery products ..." (11.2.14); and
- "States should promptly notify ... WTO and other appropriate international organizations on the development of and changes in laws, regulations, and administrative procedures applicable to international trade in fish and fishery products." (11.3.8)

In fact, many of the WTO "rules" and "principles, rights and obligations" referred to in Article 11 are commonly accepted and reasonably free of major controversy. Examples are: transparency; equity; non-discrimination; notification; and the preference for measures based on the best available science.

However, certain other issues relating to WTO rules, principles, rights, and obligations are more complicated. Among the most complex of these issues are (1) the use of trade measures

pursuant to a conservation objective outside the jurisdiction of the country applying the trade measure, and (2) measures provided for in domestic legislation but not in the appropriate international conservation body.

Noting these and other difficult issues, the Contracting Parties of the newly created WTO established a Committee on Trade and Environment (CTE) at the close of the UR negotiations in 1994, and asked it to hold consultations for two years on these issues. The CTE completed its report to the WTO in late 1996, and this document represents the most comprehensive statement of the current views of WTO Contracting Parties on the "principles, rights, and obligations" on these issues.

There is undeniably an emerging consensus that "unilateral" actions in this area should be avoided. At the same time, the Code of Conduct does not explicitly address all of these contentious issues, and the CTE Report does not resolve all of them. As the CTE Report states, it is not entirely clear what WTO rules apply, and in what circumstances, to "internationally agreed" trade measures.

More precisely, it is still difficult to discern whether the need for international agreement extends both to the conservation and trade measures, or simply to the trade measure. And, as noted in the CTE Report (Conclusions and Recommendations; para. 174), "trade measures have been included in a relatively small number of multilateral environmental agreements."

NMFS supports the emerging general consensus on the need to obtain international agreement, and believes that evolving U.S. practices are moving in that direction. Environmentally motivated trade measures should be developed and implemented multilaterally, if possible.

In the last few years, NMFS has initiated and cooperated with a number of efforts to "multilateralize" these issues. Examples include the recent adoption by the International Commission for the Conservation of Atlantic Tunas of a process leading potentially to trade measures to promote conservation of bluefin tuna and swordfish, and separate efforts to develop international arrangements for the conservation of turtles and dolphins.

At the same time, NMFS is charged with the administration of provisions of various U.S. fisheries conservation laws that others may perceive as "unilateral". In cases where there is an internationally agreed conservation standard, the WTO does not appear to preclude any use of trade measures implemented in support of that standard. In the case of statutes that mandate, rather than simply authorize, trade measures, NMFS is clearly obligated to provide the technical support required to implement these laws.

Clarification of these complex issues will require additional work by both trade and environmental experts, and cooperation between the WTO and other international organizations charged with environmental responsibilities. The CTE Report stresses repeatedly that this sort of collaboration will be necessary to reach agreement on a complete set of rules that apply to environmentally motivated trade measures. It may be noted that the CTE has reconvened in May 1997 to begin the second round of discussions on these kinds of issues. Naturally, NMFS will continue to work with other relevant U.S. Agencies to assist and promote a constructive dialogue between the trade and international environmental organizations.

IMPLEMENTATION STEPS

The NMFS plan to implement the Code of Conduct for Responsible Fisheries reflects and conforms with our legal mandates in the Magnuson-Stevens Act, especially the amendments passed in October 1996, contained in the Sustainable Fisheries Act, and with the guidance developed internally in the course of elaborating the fisheries strategic plan.

Obviously, to reach these mandated objectives, NMFS will have to work closely with all of its constituencies, in particular with the Councils. Specific implementation steps will vary significantly from fishery to fishery, region to region, and, therefore, from Council to Council. The key roles that the Councils play are to develop the fishery management plans, and generally to interact with all the constituencies and user groups interested in that plan.

To make the best choices, NMFS will take into account input and suggestions from commercial fishermen, processors, marketers and other commercial sectors, including the marine aquaculture industry, and from recreational fishermen and environmental organizations and Tribal, State and local government agencies and entities. Accordingly, NMFS welcomes specific suggestions and proposals from any of the above constituencies on how to move forward with any elements of this implementation plan.

In the international arena, NMFS will work with all federal agencies, including the Departments of State, Commerce, Interior, Defense, and Agriculture and the Office of the U.S. Trade Representative, and with foreign Governments, and with the various regional commissions that are involved in the management of international fisheries.

In other words, this plan provides an outline, a method, and a set of long-term goals, but the action steps to reach those objectives will differ from issue to issue and, to some degree, according to the needs and desires of all our constituencies and the availability of practical options.

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