

A Summary of Views Presented during
the Western Pacific Regional Roundtable

**Improving
Federal Fisheries Management
in the
Western Pacific Region**

The H. John Heinz III Center
for Science, Economics and the Environment

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BACKGROUND

ABOUT THE HEINZ CENTER

Founded in 1995 to carry on the work of Senator John Heinz, The H. John Heinz III Center for Science, Economics and the Environment is a nonpartisan, nonprofit institution dedicated to improving the scientific and economic foundation for environmental policy through multisectoral collaboration. Focusing on issues that are likely to confront policymakers within two to five years, the Center fosters collaboration among industry, environmental organizations, academia, and government in each of its program areas and projects. It uses the best scientific and economic analyses to develop viable options for solving problems, and its findings and recommendations are widely disseminated to public and private sector decision makers, the scientific community, and the public.

ABOUT THE MANAGING U.S. MARINE FISHERIES PROGRAM

Initiated in March 1998, The Heinz Center's Managing U.S. Marine Fisheries program seeks to increase the effectiveness of U.S. fisheries management. A primary goal of the program is to identify present concerns and possible courses of action for key decisionmakers, especially as Congress considers amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).

In addition to numerous documents and reports, the program has produced the book *Fishing Grounds: Defining a New Era for American Fisheries Management*, which is available through Island Press. Susan Hanna, Professor of Marine Economics at Oregon State University, led the program with support from Assistant Manager Heather Blough. Four senior advisors—Captain R. Barry Fisher of Midwater Trawlers Cooperative, D. Douglas Hopkins of Environmental Defense, Dr. Andrew A. Rosenberg of the National Marine Fisheries Service, and Professor Michael Orbach of Duke University—provided oversight to the program.

ABOUT THE REGIONAL ROUNDTABLE SERIES

The Heinz Center hosted eight roundtable meetings in the federal fishery management council regions between July and October 1999. The purpose of the meetings was to identify problems the councils have encountered in implementing the 1996 amendments to the MSFCMA and to solicit input on how fisheries management can be made more effective in the regions. The original intent was to focus on improvements to the system that could be made through congressional reauthorization. Participants also offered many ideas about administrative actions that the National Marine Fisheries Service (NMFS) and the regional fishery management councils could take to make the system work better.

The roundtable meetings were limited to a small number of participants to keep the discussion focused and productive. They were attended by industry members, environmentalists, fishery managers and scientists that participate in the fishery management system at the regional level.

Assistance in identifying qualified participants was provided by council directors and leadership of the Marine Fish Conservation Network. Participants were familiar with the full range of issues facing their region, but practical limitations did not allow for representation from every fishery, gear type, or other specific interest group.

The booklet *Reauthorizing the Magnuson-Stevens Fishery Conservation and Management Act: A Handbook and Discussion Guide for Regional Fishery Management Councils*, produced during the first phase of The Heinz Center's Managing U.S. Marine Fisheries program, provided background for the regional roundtable discussions.

Each roundtable lasted two days and was guided by a similar agenda. The first day was devoted to discussing the implementation of four mandates added to the MSFCMA in 1996, including: (1) end overfishing and rebuild overfished stocks; (2) minimize bycatch; (3) identify and protect essential fish habitat; and (4) minimize adverse economic impacts to fishing communities. The second day's discussions were focused on identifying how the fisheries management system can be improved. They too were divided into four segments, including (1) background conditions; (2) decisionmaking; (3) management implementation and administration; and (4) "new" management tools.

ABOUT THE REGIONAL ROUNDTABLE REPORTS

Each roundtable discussion was recorded and transcribed by a professional reporting service. We then produced summary minutes from each transcript, which participants reviewed for accuracy. We incorporated these materials into a report for each region, which summarizes the discussions and outlines the participants' recommendations.

The Heinz Center's goal for the reports was to capture as much information as possible about federal fishery management problems and potential solutions in the various regions. Throughout the roundtable discussions, the knowledgeable and diverse participants identified many specific concerns and options for improving federal fisheries management. We did not attempt to evaluate, prioritize, or forge consensus on the issues and recommendations that were raised. We did, however, note areas of strong agreement or dissent. Although participants did not necessarily characterize proposed actions as most appropriate for Congress, NMFS, or the councils, we did so in the final reports in the interest of making the information more useful.

In addition to the regional reports, we produced a national summary, *Improving Federal Fisheries Management: A National Report*, which synthesizes information derived from the regional roundtable series. The handbook, regional and national reports, and other documents stemming from The Center's fisheries program are available online at www.heinzctr.org.

This report was prepared by Susan Hanna and Heather Blough. It summarizes views presented during the Western Pacific Regional Roundtable held August 24-25, 1999, in Honolulu, Hawaii.

ROUNDTABLE PARTICIPANTS

DISCUSSANTS

Paul K. Bartram	Akala Products
James D. Cook	Chair, Western Pacific Fishery Management Council; Vice President, Pacific Ocean Producers
Paul Dalzell	Staff, Western Pacific Fishery Management Council
Manuel P. Dueñas II	Guam Fishermen's Cooperative Association
Eric Gilman	Pacific representative, Living Oceans Program, National Audubon Society
Alvin Z. Katekaru	National Marine Fisheries Service, Pacific Islands Area Office
Pierre Kleiber	National Marine Fisheries Service, Southwest Fisheries Center, Honolulu Lab
Craig D. MacDonald	Ocean Resource Development Manager, State of Hawaii Department of Business, Economic Development and Tourism; member, Scientific and Statistical Committee, Western Pacific Fishery Management Council
Henry Sesepasara	Executive Director, Developmental Disability Council, Pago Pago, American Samoa
Craig J. Severance	Cultural anthropologist, University of Hawaii, Hilo; member, Scientific and Statistical Committee, Western Pacific Fishery Management Council; part-time commercial/recreational troller
John Sibert	Program Manager, Pelagic Fisheries Research Program, University of Hawaii; member, Scientific and Statistical Committee, Western Pacific Fishery Management Council
Kitty M. Simonds	Executive Director, Western Pacific Fishery Management Council
Pete A. Tenorio	Small commercial/recreational fisherman, Saipan, M.P.

INVITED, UNABLE TO ATTEND

Paul Callaghan	Department of Finance and Economics, University of Guam
John Hampton	South Pacific Commission
Sam Pooley	National Marine Fisheries Service, Southwest Fisheries Center, Honolulu Lab; member, Scientific and Statistical Committee, Western Pacific Fishery Management Council (submitted written comments)
Patricia Tummons	Environment Hawai'i (submitted written comments)

FACILITATOR: Susan Hanna

ASSISTANT: Heather Blough
RECORDER: Doy Farwell

EXECUTIVE SUMMARY

The Western Pacific Fishery Management Council manages fisheries in federal waters off the coasts of Hawaii, American Samoa, Guam, and the Northern Mariana Islands. There are 64 stocks under its direct authority. The Council is tasked with implementing new fisheries management provisions added to the Magnuson-Stevens Fishery Conservation and Management Act through the Sustainable Fisheries Act of 1996. These relate to ending overfishing, minimizing bycatch, identifying and protecting essential fish habitat, and minimizing adverse impacts to fishing communities.

The Heinz Center convened a roundtable August 24-25, 1999, in Honolulu, Hawaii, to identify problems the Western Pacific Council is experiencing in implementing these new provisions and to solicit recommendations to improve fisheries management in the region. Participants included members of industry, environmental organizations, academia, and government agencies.

Roundtable participants recognized the following as primary problems the Western Pacific Council faces in meeting the new provisions:

- inability to conform to one-size-fits-all definitions;
- inadequate biological and social data and information;
- confusion about how to balance bycatch reduction and associated costs;
- reduced ability to compete internationally;
- perception of bycatch as waste;
- insufficient recognition of traditional, subsistence use groups;
- poor coordination of habitat goals at federal and local levels;
- insufficient authority for nonfishing impacts to habitat; and
- inadequate funding.

The participants offered the following general recommendations for change:

- recognize that micro-management is ineffective;
- recognize the unique characteristics of the Western Pacific region;
- recognize that fishing is embedded in daily life in the Western Pacific;
- allow the use of regional definitions and concepts;
- expand the numbers of trained stock assessment scientists;
- improve the social science information base; and
- establish routine evaluations of management program performance.

The two-day discussions that led to the identification of these problems and recommendations are summarized in the following pages. A more comprehensive list of detailed actions that could be taken by Congress, the National Marine Fisheries Service (NMFS), and the Western Pacific Council to improve fisheries management in the region are listed in the back of this report.

THE WESTERN PACIFIC REGIONAL CONTEXT

The Western Pacific is a mosaic of island jurisdictions with intersecting exclusive economic zones. The Western Pacific Fishery Management Council includes four different island entities: a state, two territories, and a commonwealth, each with its own fishing culture. These are the state of Hawaii and the territories of American Samoa, Guam, and the Northern Mariana Islands. The Council has 13 voting members—one from the NMFS 4 from the state, territorial, and commonwealth fishery agencies; and 8 public members appointed by the Secretary of Commerce.

The region is diverse, with unique political, ethnic, cultural, and geographic features. Fisheries are also diverse, ranging from small subsistence and artisanal fisheries to commercial handline and pelagic longline fisheries. The lack of continental shelves around the islands means there is very little in the way of demersal fisheries. Instead, pelagic fisheries are important. These are subject to large-scale changes in productivity driven by the El Niño Southern Oscillation.

The port of Honolulu, Hawaii, is the highest producing in the region, where 28 million pounds of fish valued at \$49 million were landed in 1998.¹ Fisheries take place inside exclusive economic zones and on the high seas. Most fishery revenue comes from offshore, but nearshore subsistence fisheries are also very important. The large subsistence and artisanal components do not fit well into standard commercial and recreational categories.

The region covers a large geographic area but has a small population that is economically dependent on fisheries. The islands are typically capital-poor, and are interested in finding financial capital to invest in fishing. Other resources are limited. Per-capita fish consumption in the region is twice the national average. The primary product form is fresh fish, with a premium on quality.

Fishing is a part of daily life, rather than set apart as a separate occupation. Everyone is a fisherman, every village a landing site. Whole islands are communities. Fish are not simply of economic value; fish and fish distribution also have large cultural and ceremonial significance. Fish are important for exchange, reciprocity, and giving, and generosity is an important aspect of community life and cultural identity. Important equity issues are related to the cultural importance of species. For example, turtles are part of traditional rights, like seals and whales are for Eskimos. Island ancestors were very aware of the need to control fishing to sustain it.

The long distance from the U.S. mainland and the distant-water nature of many fisheries keep the cost of fishing high and limit fishing effort. The large water area within the region and limited fishery enforcement resources makes enforcement difficult.

The economic dependence on foreign fishing—e.g. on canners in American Samoa and

¹ NMFS. 1999. *Fisheries of the United States, 1998*. Current Fishery Statistics No. 9800, U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

transhippers in Guam and the Commonwealth of the Northern Mariana Islands—means that people may have more affiliations and associations with other Pacific islands than with Washington, D.C. The distance from NMFS headquarters creates frequent problems with understanding and communication.

International management of high-seas fisheries through the Multilateral High Level Conference is in the formative stage. The Conference is addressing large-scale fishery concerns of dispersed independent countries that share resources. These resources require regional conservation programs.

IMPLEMENTING PROVISIONS OF THE 1996 SUSTAINABLE FISHERIES ACT

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The 1996 Sustainable Fisheries Act (SFA) added new provisions to the Magnuson-Stevens Fishery Conservation and Management Act. Four of these provisions contain significant new requirements for the Western Pacific Fishery Management Council. These relate to overfishing, bycatch, habitat, and communities. Participants' views on challenges the region faces in implementing these provisions are summarized below.

1. OVERFISHING/REBUILDING

Background

The overfishing/rebuilding provision of the SFA requires that fishery management plans contain measurement criteria for overfishing, actions to prevent overfishing, and plans to rebuild overfished stocks. The MSFCMA defines both "overfishing" and "overfished" as "a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis" (16 U.S.C. 1802(29)).

There are 64 stocks under the direct authority of the Western Pacific Council. Of these, one is overfished, one is approaching an overfished condition, 47 are not overfished, and 15 are of unknown status. Most are managed under the Western Pacific Crustaceans, Precious Corals Fishery of the Western Pacific Region, Bottomfish and Seamount Groundfish of the Western Pacific, or Western Pacific Pelagics fishery management plan.²

Rebuilding plans are not yet in place because, under the old definition of "overfishing," the stocks are not in trouble. Within the region there are localized depletion problems that have to be addressed, such as depletions of bottomfish within the Main Hawaiian Islands, but it is believed that the stock itself is not overfished. Some fishery resources are still underutilized, limited by undeveloped markets.

Implementation Issues

Flexibility in Definition: The MSFCMA established the councils as a decentralized system that would recognize the diversity of U.S. fisheries, but participants said that recently there has been a move away from regional flexibility in the application of the national standards. Participants said the process of applying the new "overfishing" definition is meaningless, except to satisfy a bureaucratic demand. It is a mistake to apply a single definition of "overfishing" nationwide. The risk is that instead of a "one size fits all" definition, it will result in "one size fits none." Participants believe an "overfishing" definition should reflect the life histories of the stocks being managed. They noted that spawning potential ratios have worked well in the

² NMFS. 1999. Report to Congress on the Status of Fisheries of the United States. October

region, but NMFS has rejected their use as a definition of “overfishing.” The emphasis placed on maximum sustainable yield was a concern for participants, because it is a difficult concept for fishermen and managers to comprehend and its use has caused credibility problems for the Council.

Research and Data Needs: Participants noted that the “overfishing” definition created large workload requirements. All stock assessments have a “pyramid” of background requirements behind them, and the number of stock assessment people trained to do the work is very limited. Participants understood that the shortage of stock assessment scientists is a problem nationwide and that it represents a large educational need.

The time series of fishery data is shorter in the Western Pacific region than in other regions. Participants said that inadequate data limit the use of maximum sustainable yield as a management concept. They pointed out that maximum sustainable yield is also unable to reflect local depletions, which are important to small-scale subsistence fisheries because small boats do not have the mobility to move to new areas.

The status of shark stocks is in serious need of assessment according to some participants. The effect of increasing fishing effort on blue sharks is unknown. For tuna, the data are limited to rough catch and effort data. Arbitrary numbers are applied in a crude estimation process, but the data are insufficient to provide information on separate stocks. In addition, participants noted that using an index of stock status based on large-scale commercial fisheries can be misleading in terms of what is happening in small-scale fisheries.

2. BYCATCH

Background

The bycatch provision of the 1996 SFA requires that fishery management plans establish standardized bycatch reporting methodology, as well as measures to minimize bycatch and bycatch mortality. The MSFCMA defines “bycatch” as “fish which are harvested in a fishery, but which are not sold or kept for personal use, [including] economic discards and regulatory discards.” The legislative definition excludes “fish released alive under a recreational catch and release fishery management program” (16 U.S.C. 1802(2)).

The bycatch amendments are partly approved—approved for crustaceans and precious corals and disapproved for pelagics and bottomfish. NMFS concluded that the amendments should have included shark finning. The Council would have liked advance guidance on NMFS’s expectations.

Implementation Issues

Definition of Bycatch: There are different definitions of “bycatch” used in Atlantic and Pacific fisheries. Participants noted that in preparing its fishery management plan amendments, the Council used the MSFCMA definition of bycatch—i.e., any fish that is caught and not used.

Seabird bycatch was not included in the amendments because birds are not classified as fish under MSFCMA. But turtle bycatch was included because the Act defines turtles as fish. These examples raised questions among participants about which legislation should be addressing issues like seabirds, and where MSFCMA responsibility for species ends.

Flexibility in Implementation: Under the MSFCMA, bycatch levels must be further reduced regardless of current levels. Participants said there is a limit to how long these reductions can be carried on. For example, they pointed out that the level of turtle bycatch is very low, and it is not cost-effective to continue to spend resources to reduce it further, rather than dealing with problems in the turtle population. This is part of the “one size fits none” approach in which the same rules are applied to all regions as if the problems are all the same.

Observer Programs: The Council has asked NMFS to develop a policy for observers that would include funding, levels of coverage, and use of observer data. Some participants said that market-based approaches should be tried to solve management problems like bycatch, especially in small-boat fleets. Observers may not be practical for large numbers of small boats, even though it was recognized that observers are the best way to record bycatch information.

The need for bycatch information is placing an increasing burden on observers, but funding for observer programs is limited. Participants believe that observer coverage of the longline fleet must be increased from the current level of 4 percent if bycatch is to be reduced. They noted that data are needed to document the extent of bycatch and to assess the success of bycatch mitigation measures.

International Effects: Participants expressed concerns about the consistency with which the bycatch rules are applied. For example, domestic and foreign fishermen are treated differently with regard to the bycatch of protected species. These two groups also use the resource differently, as illustrated by turtles. Domestic Pacific Island fishermen have a cultural dependence on eating turtles, while foreign fishermen sell turtle shells as a commercial product. In addition, foreign fleets have much higher rates of shark finning than domestic fleets. Many of the rules that apply to domestic fisheries in the U.S. Pacific insular area do not apply to foreign fisheries. Participants said it is a particular problem to have bycatch rules apply only within the exclusive economic zone.

Waste vs. Bycatch: Shark finning is a controversial practice that has been increasing. Sharks are not bycatch, but rather are incidental catch with partial economic recovery and a high percentage of waste by body weight. The difficulty with moving beyond using just the fins to full utilization of blue sharks is that the value of the flesh is low. Joint agency and private sector efforts are ongoing to develop full utilization possibilities options. Some participants said whether shark finning represents a conservation issue for blue sharks is debatable.

It was noted that the state of Hawaii conducted a substantial long-term promotional campaign to develop markets for incidentally caught fish. The goal was to get prices high enough to ensure retention. The program served a trading and brokering function, with the result that distribution networks have developed so well that people are looking to other areas to increase the quantity

they can supply. The result of this program is that there is little waste in Hawaiian fisheries.

Research and Data Needs: Participants believe that the Western Pacific region is caught up in the hysteria of bycatch that was created by fisheries from other regions. Some noted that, because most fisheries in the region are fished by selective hook-and-line gear, they do not generate much bycatch. But they acknowledged that bycatch of seabirds and turtles is a very controversial issue.

In terms of fish bycatch, the Council's Scientific and Statistical Committee is concerned about the prospect of NMFS's including marketable catch in the bycatch category. Almost all species caught in Hawaiian fisheries are used. Participants contended that, rather than try to suppress catch, more effort should be put toward understanding the population dynamics of the affected stocks. They said that the real waste in the Western Pacific region occurs in the Asian fisheries off Guam that discard substantial volumes of fish because their markets are limited.

Participants have very different perspectives about the extent of the bycatch problem with seabirds and turtles. Basic questions are still not answered about populations of sea turtles, birds, or blue shark, which is being finned. One perspective was that NMFS needs to work more aggressively on the turtle bycatch issue, or bycatch limits could curtail the operations of the longline fleet. The observer coverage of the longline fleet is too low to be meaningful, according to participants. When allowable bycatch levels have been exceeded, the Council has responded by increasing the levels. Legal challenges have been made to the turtle bycatch limits.

Participants recommended research designed to enable fishermen to avoid concentrations of bycatch should be conducted. For example, turtle bycatch might be eliminated by avoiding their preferred isotherms. Resources are needed to conduct fishing experiments because normal fishing operations create so few incidences of turtle interaction with gear that data cannot be collected.

Serious concerns was expressed about how take levels are set under the Endangered Species Act. An allowable catch level is set based on historical occurrences, then monitored through catch per unit effort. Participants asked it means if, for example, the catch per unit effort goes up? It could mean a good thing—turtles are recovering—as well as a bad thing—proportionately more turtles are being caught. There is similar ambiguity when catch per unit effort falls.

Participants also raised issues regarding the extent of fishing effects on birds relative to other mortality effects, such as airplanes at Midway Atoll and Northwest Hawaiian Island airstrips, or ingestion of plastic light sticks and other implements discarded at sea by fishing vessels. A related question concerns how take levels are set for protected species.

Another perspective was that the new bycatch rules do not address the problem, and there needs to be a way to prioritize efforts. Most of the Council's pelagics management discussions in the past few years have been driven by bycatch issues—turtles, sharks, and birds. Participants contended that the Council is not focusing on the target resources.

Still another perspective focuses on the equity issues related to the incidental catch of turtles. Driftnets decimated turtle populations, and now the people of Guam are being told not to use or eat turtles, even though turtles are part of their traditional rights. But longliners are given turtle bycatch allowances. The people of Guam believe it is unfair that they are being forced to be part of the solution to a problem they did not create.

With regard to albatross, the Council has taken action to reduce their interception and take. It required changes in fishing practices and conducted some multilingual educational sessions. How effective these changes will be remains to be seen.

3. ESSENTIAL FISH HABITAT

Background

The habitat provision of the 1996 SFA requires that fishery management plans describe and identify essential fish habitat, minimize fishing effects on habitat, and identify actions to encourage conservation and enhancement of habitat. The MSFCMA defines “essential fish habitat” as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity” (16 U.S.C. 1802(10)).

Implementation Issues

Tradeoffs: The MSFCMA requires the councils to identify essential fish habitat for all species, not just for commercially important species. The habitat complexity of coral reef ecosystems is a unique feature of this region that makes identification of essential fish habitat difficult. It was suggested that one way might be to identify essential habitat by ecosystem type, rather than by individual species.

International, Federal, State, and Territorial Coordination: The Council has no authority to designate essential fish habitat in waters beyond the U.S. exclusive economic zone, even though Western Pacific species rely on this habitat. Also, some areas require coordination among federal waters, the state, and territories. For example, Hawaii has changing claims of state jurisdiction that are causing potential problems. Participants noted that in the territories and the commonwealth there are questions about the practice of disposing of confiscated vessels to be used as artificial reefs, close to shore. They believe that there is substantial uncertainty about the effects of this practice, and that its impact should be analyzed. They said the Act needs to recognize these different levels of complexity among regions.

Ecosystem Management: Participants noted that the essential fish habitat provision is one step toward ecosystem-based management, and had many questions about what this means. They said it would be helpful to have an explanation of what ecosystem-based management means in operational terms. For example, how do you bound the ecosystem? If you manage for maximum sustainable yield, you will have changes in the marine ecosystem, just as agricultural production changes the diversity of land ecosystems. If you manage for maximum economic

benefit to the nation—one of the goals of the MSFCMA—they questioned whether biodiversity can be maintained. Biodiversity areas would need to be set aside and not managed for economic use. A lot is unknown about the best “mix” to take from an ecosystem or how harvest will affect ecosystem structure. For example, they asked how would you manage to conserve ecosystem structure, and what does that mean? And given that most coral reefs in the Pacific have been fished for extremely long times and are not pristine, what should the benchmark be?

To some extent ecosystem management is already being practiced in the pelagic long line fishery where the status of major fish stocks, turtles and seabirds, and oceanographic indicators is monitored. Participants understood that when ecosystem management is widely practiced, fishery management plans will likely be put together under an umbrella “ecosystem” plan, which will be controversial. They believe that accounting for “all other applicable law” and executive orders will be more difficult to satisfy because the plan will have less focus.

Precautionary Approach: Some participants noted that the essential fish habitat provision provides the Council with an opportunity to apply the precautionary approach. But others are concerned that use of such an approach, which promotes caution under uncertainty, conflicts with the usefulness of experimenting and managing adaptively.

Fishing Impacts: Pelagic longlines are the predominant gear in this region, and so, according to participants, there is little gear effect on habitat. Bottom trawl gear is prohibited by the bottomfish fishery management plan. Huge quantities of fishing gear and other detritus that float into the Western Pacific from other regions affect habitat. Participants said the island chain acts like a comb, picking up gear drifting across the Pacific. Lost gear entangles turtles and monk seals, and birds ingest discarded plastic debris. There are some coordinated efforts in place to resolve the debris problem.

Nonfishing Effects: Participants believe the MSFCMA needs more teeth to protect essential fish habitat against nonfishing effects. They noted that the consultation provision is not strong enough. For example, NMFS needs more authority to require a response from other agencies on issues like wreck disposal and submerged ordnance. They also pointed out that the Council needs to be able to manage all vessel traffic on coral reefs under a coral reef management plan. Freighters drag anchors while waiting outside the harbor at Saipan, Northern Mariana Islands. Anchor dragging is also an issue with foreign fishing vessels. Participants said it would be better to have mooring buoys.

To protect essential fish habitat, it was suggested that consultation could be changed from a procedural requirement to a permitting process where NMFS, as the action agency, has authority to permit or deny an activity. Agreements between island governments and the U.S. Department of Defense also need to be changed, according to participants. They said military activities, like ordnance practice, destroy coral reef habitat and kill seabirds, but some treaties exempt the Department of Defense from doing environmental impact assessments.

Research and Data Needs: Participants noted that not all habitat occupied by fish is essential. The essential parts of habitat are the primary areas critical to the ecological integrity of the marine ecosystem. The question was raised as to how these would be measured.

Activities related to implementing the essential fish habitat provision have diverted money and staff from other Council and NMFS activities. Participants agreed that a lack of money is a major problem, and there is no obvious end to essential fish habitat-related requirements.

4. COMMUNITIES

Background

The communities provision of the 1996 SFA requires that the effects of management measures on fishery participants, fishing communities, and fisheries in adjacent areas be assessed. The MSFCMA defines “fishing community” as “a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community” (16 U.S.C. 1802(16)).

Implementation Issues

Definition of “Fishing Communities”: The definition of “community” has been discussed extensively in this region, and the feeling among participants is that NMFS is using an East Coast concept of communities that is not appropriate for this region. In the comprehensive fishery management plan amendment, the Council tried to define “communities” as entire archipelagos. NMFS accepted that definition for American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands, but not for Hawaii, even though people in Hawaii live over a wide geographic area. The Council is now defining each community as an island.

Participants said that “community” has at least three meanings in the Western Pacific: (1) geographic (coastal community, village); (2) ethnic (indigenous); and (3) the “from the mountains to the sea” idea of islands. The term “community” is valuable because it is flexible enough to be defined in ways that fit a region’s context. Participants contended that the application of a single definition of “community” nationwide is not good social science.

Participants said the intent of the communities provision is unclear, and there is poor communication between the Council and NMFS headquarters about it. They added that NMFS had the plans under review for two years without providing the Council any feedback regarding communities.

It was generally understood that NMFS is vulnerable to litigation on the basis of what councils do and, as a result, the agency is concerned about its legal vulnerability if the definitions are not applied consistently. But participants believe a single definition of “communities” may work against actually helping fishing communities as they exist in the Western Pacific. For example,

community development programs are proposed to benefit indigenous people of the region, but the ethnic communities are scattered, so an island-based definition does not make sense. They added that if a geographic definition of “community and development” is used, and if programs are based on that definition, target groups are excluded.

It was suggested that the definition of “community” for assessing the impact of fishery regulations could be decoupled from the definition of “community” for economic assistance. The first could be defined by geography, and the second by ethnic association. NMFS headquarters is having a hard time decoupling these, but participants said the agency should only be concerned with the definition that relates to fishery management impacts.

Participants pointed out that everyone on the islands is connected in some way to fishing. Everyone is dependent on fishing to some extent. Fishery dependence in the region goes beyond economic dependence—there is strong cultural dependence as well. Also, associated industries like tourism are dependent on fish availability.

Other Definitions: Categories and Coast Guard rules should make sense for Western Pacific fishing operations. Participants noted that the Council is opposed to a strict distinction between commercial and recreational fisheries because in practice the line between them is fuzzy. Some people have nonfishing jobs but fish on weekends, selling some of the fish. They are called “expense fishermen.” The Hawaii law requires a commercial license to sell fish through established auctions, but how much fish gets sold unreported is unknown. Participants believe that more should be learned about the purely recreational catch and the unsold expense catch.

Another example that was offered regarding the problem with definitions is that Coast Guard regulations for safety equipment apply to every “commercial fisherman,” which is defined as someone who sells one or more fish. Participants noted that for small-boat “expense fishermen,” some of the safety equipment costs more than the entire vessel, and it can be too large a scale for a small boat. They recommended tailoring safety requirements to the size of the vessel.

It was noted that the existing categories and definitions also fail to reflect the nature of barter, particularly in American Samoa, Guam, and the Northern Mariana Islands. Barter is included under the definition of “commercial fishing,” but there are important reciprocity aspects to barter that are not commercial. (“Commercial” is defined the harvest of fish that are intended to enter commerce through sale, barter, or trade). Exchange, reciprocity, giving, and generosity are important aspects of community life.

Participants believe that programs that limit access to fisheries also must consider these uses. They said language must be added that recognizes the uses and movements of fish and protects those uses as part of cultural identity. They also recommended applying a separate term for artisanal fishing.

Funding for Social Science: Participants agreed that the lack of funding for social science research is a big problem, with many dimensions. They said existing data are inadequate and do

not represent fishing communities, and that data collection methods are poorly defined, and that there are too few social scientists. It was noted that the Office of Management and Budget's restrictions on the collection of social science data are unworkable. The Saltonstall-Kennedy program was supposed to fund industry projects, but over the years NMFS has used more and more of those funds for administrative purposes. Participants suggested that money needs to be put back into the program, and noted that it's a good source of funds for industry projects.

Needs of Western Pacific Communities: Guam and other island communities are concerned about their access to fishing. Participants asked what the position of these islands is vis-à-vis the U.N. treaty that gives all non-self-governing territories exclusive rights to the 200-mile limit. Some participants believe that American Samoa and Guam need help in developing their domestic fisheries because their communities are being hurt by not having funding for boats. They suggested that a loan program for Pacific fishermen is needed to address localized undercapitalization problems without contributing to overall overcapitalization, and added that the program could be similar to the one in Alaska. Participants pointed out that a program targeted at indigenous communities who do not have the capital to buy into a limited-access program would be especially useful, and stated that there is still room for some localized capacity expansion in this region.

Managing with Communities: Participants noted that the Council would like to see the Western Pacific have more authority to address community issues. Communities are not being tapped as a potential knowledge base or management base. It was observed that some communities are interested in contracting to manage their own fisheries. It would be useful to see more community-based research as well, to identify the local-scale factors, like how far fishermen are traveling to find fish.

Research and Data Needs: Participants acknowledged that in some ways community issues are delivered very effectively to the Council through the advisory panel process. But they noted that there are still many unmet data needs. For example, there are inadequate data to conduct community impact statements, and there are no data on recreational fishing because Hawaii does not have the Marine Recreational Fishery Statistical Survey. The exception is the charter boat fleet, which is part of the commercial database. Charter boats sell most of what they catch to earn as much as 10 percent of their gross revenues.

The Scientific and Statistical Committee requested that the recreational survey be expanded to Hawaii, modified for local conditions. Participants suggested that it should also reflect the existence of subsistence fishermen, who eat what they catch. The concept of game fishing—playing with what you eat—is foreign to this region. Billfish are caught to eat. Actions taken on the mainland, like the “no billfish on the plate” campaign, also affect markets and operations in the Western Pacific.

IMPROVING FISHERIES MANAGEMENT IN THE WESTERN PACIFIC REGION

IMPROVING FISHERIES MANAGEMENT IN THE WESTERN PACIFIC REGION

Roundtable participants reviewed background conditions in the Western Pacific region's fisheries, existing decisionmaking and implementation processes, and possible new tools to identify administrative and legislative actions for improving fisheries management in the region.

1. BACKGROUND CONDITIONS

Present-day fisheries are a product of their management history. Regional roundtable participants identified the following background conditions as important factors influencing the current state of fisheries and fisheries management in the Western Pacific region. They also discussed how these conditions could be better addressed.

Access and Capacity

The biggest fishery in the Western Pacific region is the longline fishery, with the number of permits capped at 164. Permits are valid for five years, are fully transferable, and include limits on vessel size. There are also limits on lobster permits in Northwestern Hawaiian Islands and in two bottomfishing zones. And there are limits on vessel size for bottomfishing. For other areas—Guam, American Samoa, and the Northern Mariana Islands—fishing is open access.

There has been some discussion of limiting access to the American Samoa longline fishery by limiting an area to vessels under a certain size, with preference for Samoan fishermen. This proposal was disapproved by NMFS, so the fishery is still open access. Participants noted that people in American Samoa are concerned that larger, higher-tech boats could enter and out-compete the local lower-tech boats in the albacore fishery. They pointed out that the existence of canneries in this location increases the risk.

Some participants explained that there are undeveloped fishery resources in the Northern Mariana Islands. Subsistence, sport, and small-scale commercial fisheries take a nominal catch. They believe investment is needed, preferably from American fishing companies, rather than foreign companies. They acknowledged that there are problems with fishing in this area that limit participation, including the high costs of fuel and maintenance and long distances from other places. Baseline information about stocks and what is affecting them is also lacking.

Participants said that the boundaries of the exclusive economic zone around the Northern Mariana Islands needs to be formally resolved and that there is a need for better management of coral reefs. They pointed out that once a Marine Conservation Plan is in place, the islands can enter into a Pacific Insular Area Fishing Agreement—a license agreement for foreign fishing in the exclusive economic zone of American Samoa, Guam, the Northern Mariana Islands, and the Pacific Remote Island Areas to be submitted by the area governor or other appropriate authority and approved by the Secretary of State.

Participants that the people in Guam want domestic development to regain control of their fisheries. They have observed foreign boats offloading fish in Guam and are concerned that foreign fishing regulations are not being enforced. People see the resource base shrinking and are asking who is representing Guam's concerns in the Western Pacific.

Participants noted that the Multilateral High Level Conference will provide a management regime for the Western Central Pacific. In 2000, it is expected to create a commission for the conservation and management of tuna-like species that will consider capacity and access. The Conference will probably supersede the councils, as international agreements do with the International Commission for the Conservation of Atlantic Tuna and tuna quotas in the Atlantic. Participants noted that this may have unforeseen consequences for domestic fishery management because there is a lot of excess international capacity waiting to enter the West Central Pacific.

Participants expressed concerns about representation in the Multilateral High Level Conference. The State Department is the representative for all the islands in the U.S. Western Pacific, but participants said the U.S. Pacific islands want direct representation in the discussions. They noted that Washington, D.C., is a long way away from the Western Pacific and have doubts about whether their interests will be adequately represented. They also noted that three French territories in the Pacific are being given a vote in the Conference.

Evaluation of Limited Access: Participants believe that limited-access programs need to be monitored to see how well they are performing and if they are adapting to changing conditions. They said that there is a tendency not to evaluate management programs, and believe such evaluations should be mandatory. Some participants suspected that often there is reluctance to evaluate programs because of fear of reopening controversies that arose during program development.

Capacity Reduction: It was suggested that capacity-reduction programs need to address the distribution as well as the magnitude of capacity. Participants asked how well considered the NMFS overcapacity initiative is, and whether it can accommodate regional variations, especially for highly migratory species. If buyback programs are used to reduce capacity, participants cautioned that care needs to be taken that they do not simply result in capacity shifts into other fisheries.

2. DECISIONMAKING

Decisionmaking is a key component of the fishery management system. All biological, ecological, social, and economic conditions in the fisheries are influenced by decisions made at the regional and federal levels that form the basis of fishery management plans and amendments. The discussion that follows summarizes the challenges and opportunities to improving decisionmaking identified by participants.

Long-Term Planning

Participants noted that the Council has tried to build in review periods for plans, and since 1983 has been doing program planning for three- to five-year periods. The planning is done within groups—such as the Council, Scientific and Statistical Committee, advisory committees—rather than across groups. Some participants believe it would be helpful to have some strategic planning discussions that involve all groups of the Council at the same time.

Council Operations and Public Involvement

Participants noted that most people in the region find Council operations difficult to follow and pointed out that documents are not widely available. To address these problems, the Council has begun some public education and outreach through the Advisory Panel. It has also hired a science communicator.

Another problem for public involvement is that the public hearing process is too structured and formal. According to some participants, by the time public hearings are held, people perceive that a decision has already been made. It was suggested that the Council should be encouraged and authorized to hold informal meetings with groups of constituents and to encourage active dialogue.

Council Membership

Participants said that the Council needs an additional seat to represent indigenous people and community-based fisheries and that broader public representation is also needed, such as from the conservation and science communities. Some feel that Council members have too much freedom now to ignore the science, even with scientists as members of the Scientific and Statistical Committee and other advisory committees. In making appointments to the councils, governors are required to consult with appropriate fishing interests, and many think it would be beneficial to change the MSFCMA to require governors to consult with all relevant interest groups.

Precautionary Approach

Some participants believe that in the absence of a working definition of “precautionary,” the precautionary approach is being reduced to sloganism. They noted that assessment scientists are being pressured to apply precautionary adjustments to estimates of acceptable biological catch quotas. Western Pacific assessment scientists think that precautionary adjustments should be explicit, rather than hidden in the science. Participants said that some scientists think that precautionary adjustments are policy choices, not scientific choices, and should be made by managers.

Some participants believe the precautionary approach prohibits experimentation, and so precludes the use of adaptive management to fill in gaps in scientific understanding. They said

that conservative approaches to adaptive management should be used to generate information. However, people should be made aware that having more scientific information does not necessarily mean that fishing levels can be higher. More information might eliminate sources of error and reveal that a more conservative approach is warranted.

Constraints on Data Collection

Participants agreed that the Council has very poor data on subsistence, artisanal, and recreational fisheries, and that this directly affects the Council's ability to meet the requirements of National Standard 8. It was suggested that data on recreational angling could be acquired by extending the Marine Recreational Fishery Statistical Survey to the Western Pacific. Other survey data are also needed to improve the social science database, but Office of Management and Budget requirements under the Paperwork Reduction Act (requiring approval for contacts with 10 or more people) are hindering the Council's ability to do survey work. Participants tend to believe that obtaining approval from the Office of Management and Budget is so time consuming that it prohibits getting timely data.

Several participants noted that the rules about conducting surveys need clarification. They asked whether Office of Management and Budget approval requirements extend to anyone using federal funds. But more important, they believe that more flexibility is needed in conducting surveys. It was suggested that the MSFCMA could be changed to allow voluntary responses to surveys.

Data Confidentiality

Participants noted that protections of confidentiality can sometimes interfere with good analysis and obstruct the management process. For example, when aggregation limits prevent the reporting of detailed information, they can have the effect of miscommunication. One perspective on data confidentiality was that people who are privileged to exploit a public resource need to sacrifice their anonymity in the interest of good management. Another perspective was that catch locations are sensitive business information. The duration of data sensitivity varies by fishery, so a sunset clause on confidentiality might fix the problem. At the least, participants agreed that the confidentiality guidelines should be reviewed.

Observer Programs

Participants said that the MSFCMA needs to provide more guidance on how observer programs are to be treated. NMFS needs to decide what it wants from observer data—whether it is to be used only for protected species interactions or whether it could also be used for routine management needs.

The Act now protects the confidentiality of logbook data, but does not protect the confidentiality of observer data. Freedom of Information Act requests for observer data are not required to include a rationale for a request. Participants said this issue needs a policy review to assess the pros and cons of making observer data public, especially with respect to fishery

violations. They specified that the review should also address the question of whether observers should have enforcement authority. It was noted that if the goal of an observer program is to have observed behavior be as close as possible to unobserved behavior, adding enforcement authority to observers may compromise data integrity.

Participants agreed that another important question about observer programs is who pays for them. Observer programs are expensive and there are many unresolved questions about fees. Participants said that NMFS wants the authority to seek fees from the industry to pay for observer coverage; industry wants to know more about the purpose and duration of an observer program before commit to pay for it. Some participants think there should be more observation of foreign fishing practices, which they believe are very wasteful. They recommended that a policy be developed for the types of information requests that are properly the scope of the industry, and the types that are the responsibility of others. The effect of fees on small-scale producers should also be considered. Because funding is such a big issue, particularly for tools like electronic vessel monitoring systems, some participants suggested it may be simpler for the government to pay for it than to analyze all funding alternatives.

Pacific Insular Area Fishing Agreements

Under Pacific Insular Area Fishing agreements, foreign companies are given permission to fish under the guidance of a three-year marine conservation plan. The plans specify how revenues from foreign fishing will be used. Participants explained that people in areas affected by these agreements think they should have some say in how the agreements are structured—for example, adding restrictions such as closed areas. They suggested that the MSFCMA could be amended to allow U.S.-dependent territories to add restrictions to Pacific Insular Area Fishing Agreements that would be at least as stringent as those in fishery management plans. Public comment periods could be mandated.

Participants noted that there are four marine conservation plans now under review at NMFS but the evaluation criteria are vague. More information is needed about the review criteria and process NMFS is using.

The Western Pacific Sustainable Fisheries Fund was established by the 1996 SFA to hold payments received under Pacific Insular Area Fishing Agreements. Plans are being developed for using these funds. Participants said there is also interest in allowing the Fund to receive monies from sources other than these agreements, for example from foreign fishing violations.

3. MANAGEMENT IMPLEMENTATION AND ADMINISTRATION

The implementation of management decisions is an important part of the fishery management process. Roundtable participants exchanged views on management implementation and identified problems with the current system and how the process could be improved. Their discussion is summarized below.

Council/State/Federal Interface

Some participants pointed out that areas in the Western Pacific are struggling to maintain their individual differences and cultural identities. They believe that within NMFS, there is not a good understanding of Western Pacific fisheries or culture. They think the Council needs a dedicated Regional Administrator who understands the region and its fisheries and who is more responsive to the region's needs.

It was noted that interactions among the Council, NMFS, the U.S. Fish and Wildlife Service, and regional governments can be difficult. Some participants believe that, from the Council's perspective, there is too much micro-management by NMFS, and centralized decisionmaking at NMFS headquarters leads to poor communication between the region and headquarters. They said that the Council gets mixed messages about what NMFS will be looking for in documents. An example is the very poor communication about how various definitions fit into the Western Pacific context.

Participants said that the guidance provided by NMFS headquarters is not particularly specific or consistent. For example, there will typically be no communication at all about a document until the decision deadline has arrived. The Council then receives a decision without explanation. Some participants believe that people at NMFS headquarters sometimes convey a cavalier attitude about the work involved in developing and revising plans and plan amendments. A further problem is the lack of required review deadlines for NMFS to follow.

It was suggested that an amendment to the MSFCMA is needed requiring NMFS to provide response and guidance to the Council during the document preparation process. This would increase the probability of obtaining approval for documents at the time they are submitted.

The Role of NMFS

NMFS is responsible for enforcement, data collection, conservation, fishery development, protected marine resources, essential fish habitat, stock assessment, and more. Some participants questioned whether the agency has too many potentially conflicting mandates. Another concern was how to maintain the scientific and administrative integrity of the science centers and regions when decisionmaking is centralized.

Regional Diversity

Some participants said it is ineffective to try to micro-manage fisheries through the MSFCMA. Many think it would be better to develop a framework through legislation that encourages and allows specific issues to be developed by the regions.

Council Funding

Participants agreed that funding for the council system is not keeping up with workload

requirements. All councils are scrambling for funds to cover research and administration. Legislation has layered on more requirements, and the quality of work is beginning to suffer. People are spread way too thin across responsibilities.

Participants said there needs to be a realistic assessment of what it costs to manage fisheries, and funding should cover those costs. A lack of basic research means that some decisions are made without a scientific basis, and that leaves the decisions open to legal challenges. Participants said the Western Pacific Council wants its own pool of money for research, and to be able to receive monies from other agencies, like state agencies. This would require a change in the Act.

Human Capital Needs

Participants pointed out that although more stock assessments must be done to meet the new overfishing and rebuilding requirements, the resources to meet this need are inadequate. For example, there is a national shortage of people trained to do stock assessments. They said that if the MSFCMA increases the required number of stock assessment, it should also promote more training in stock assessment. In addition, more people trained in fishery management are needed, and more basic research in biological monitoring technology is needed as well.

Aquaculture

Hawaii has a new law that allows for offshore commercial aquaculture in state waters. Ocean leasing is coordinated under the ocean leasing law, which stipulates no numerical limit to state jurisdiction offshore because the state wants to make sure it gets royalty payments. It is a very complex regulatory environment. Participants noted that the MSFCMA may need to be strengthened to address the environmental consequences of aquaculture. Some are concerned about NOAA's role in promoting aquaculture with financial incentives.

4. "NEW" MANAGEMENT TOOLS

Several tools and approaches not traditionally used in fishery management have been receiving increased attention across the nation for their potential to address problems associated with traditional management, such as overfishing, overcapacity, bycatch, and habitat degradation. Roundtable participants discussed the regional application of each of the following fishery management tools and approaches.

Individual Fishing Quotas

Participants agreed that the moratorium on individual quotas should be lifted. Individual fishing quotas remain controversial in the Western Pacific region and not everyone would support lifting the moratorium, but participants said the Council believes it needs access to the entire "tool bag" and should be able to decide for itself whether to use this tool. They said the Council is concerned about the preemption of council authority represented by the moratorium. The American Fisheries Act also did this, and set a precedent for special-interest laws. The Council

would like to manage under the Act without this kind of interference from Congress.

Individual fishing quota programs remove the requirement to micro-manage the fishery, but some participants pointed out that their potential usefulness is limited in the Western Pacific because at present there are not many quota fisheries. It is difficult to imagine a system of individual quotas for international migratory stocks, so alternative management tools will be needed. A goal with these programs and other management tools is to avoid creating incentives to hi-grade, especially given all the effort that has gone into market promotion for full utilization.

Marine Protected Areas

Marine protected areas are difficult to use for pelagic species, but the possibility of establishing such areas around some uninhabited islands is being considered. Participants noted that the Council is exploring whether it has jurisdiction over these island areas. Given the large geographic area in the Western Pacific, the distribution of marine protected areas will be important. It was pointed out that a network of marine protected areas Pacific-wide may be necessary, and that it will be important to coordinate siting with communities.

The state of Hawaii has large marine protected areas around the main Hawaiian Islands, but participants said the state does not currently evaluate the effectiveness of these areas. Areas closed to specific uses are now used throughout the Western Pacific. There is some consideration of developing management zones whose borders are based on isotherms and would change seasonally. Some participants believe marine protected areas are possible in this region because electronic vessel monitoring systems—which all longline and lobster boats have—make them enforceable.

Participants pointed out that there remain many uncertainties about marine protected areas. For example, What scale is needed to be effective? What are the sources and sinks in coral reef marine protected areas? What are the effects of high-density tourist use, as in Hanauma Bay? What are the effects of uses outside the area? If NMFS is going to promote the use of this tool, participants said the agency should be properly funded and evaluated so that the questions can be answered.

Co-Management

Some participants suggested that co-management authority under the councils should be recognized and authorized by the MSFCMA. An example of this type of approach is the informal agreement developed by Northwest Hawaiian Island lobster fishermen regarding effort allocation.

Fishery Development Programs

Some participants said that there are fisheries in the Western Pacific still in need of development. Some contended that affiliation with the United States puts American flag territories at a disadvantage in obtaining financial capital because they are restricted to using

U.S. funds. For example, fish are the primary resource in Guam, but fishery financing is lacking. This is in contrast to the situation for neighboring non-American flag islands where donor nations like Japan are financing boats.

It was stated that Guam receives mixed messages about the availability of fishery development loan funds, and many people on Guam believe they are poorly treated. The Fishing Vessel Obligation Guarantee program is now limited to redevelopment or refinancing of existing fisheries, but since there is not a history of a domestic fishery in Guam people don't qualify for the program, nor are they able to secure commercial loans. One proposed solution is to have a Western Pacific community development loan program, similar to Alaska's, that is targeted toward particular needs.

Community development under the MSFCMA relates to the federal exclusive economic zone, which in the Western Pacific is the offshore pelagic realm, not the nearshore area. It was pointed out that development programs are needed instead for nearshore small-boat fishermen. Fishery development funds could also be used to build safer boats—for example, 40 rather than 18 feet in length.

Participants did agree that care must be taken to ensure that targeted development programs do not contribute to overcapacity. While recognizing that some local or indigenous fisheries need access to capital, the gold rush that has played out in Western Samoa should not be repeated. Fishery development programs should also be tied to market development so that all fish landed can be sold.

ACTIONS RECOMMENDED BY ROUNDTABLE PARTICIPANTS

ACTIONS RECOMMENDED BY ROUNDTABLE PARTICIPANTS

General recommendations offered by roundtable participants to assist the Western Pacific Council with implementation of the 1996 amendments to the MSFCMA and to improve the effectiveness of fisheries management in the Western Pacific region include:

- Recognize that micro-management is ineffective.
- Recognize the unique characteristics of the Western Pacific region.
- Recognize that fishing is embedded in daily life in the Western Pacific.
- Allow the use of regional definitions and concepts.
- Expand the numbers of trained stock assessment scientists.
- Improve the social science information base.
- Establish routine evaluations of management program performance.

Many specific actions to implement these recommendations were identified by participants throughout the roundtable discussion. Those with apparent support of the majority are listed below. Although participants did not necessarily characterize proposed actions as most appropriate for the Congress, NMFS, or the councils, we have done so here in the interest of making the information more useful. A more detailed discussion of the issues leading to these recommendations can be found in earlier sections of this report.

1. WHAT CONGRESS CAN DO

- Fund the council system at a level commensurate with its responsibilities.
- Establish a Western Pacific community development loan program .
- Add a Council seat for indigenous people.
- Broaden council representation to include environmental organizations and scientists.
- Provide national policy as general guidance but allow regional flexibility in meeting goals.
- Lift the moratorium on the development of individual fishing quota programs and give councils back the authority to assess this tool.
- Fund the expansion of social science research and personnel.
- Authorize council experimentation with alternative management approaches.
- Authorize councils to receive research funds from other agencies.
- Strengthen the MSFCMA's consultation authority for nonfishing effects on habitat.
- Relax Office of Management and Budget restrictions on the collection of social science data.
- Review and update rules about data confidentiality.
- Require NMFS to provide guidance during document preparation and to meet established deadlines for review of documents.
- Address the international component of bycatch.
- Reconcile the Atlantic and Pacific definitions of "bycatch."
- Require that marine protected areas be monitored and evaluated.

- Clarify how seabird bycatch should be treated.
- Allow U.S.-dependent territories to add restrictions to Pacific Insular Area Fishing Agreements as stringent as those in fishery management plans.

2. WHAT THE NATIONAL MARINE FISHERIES SERVICE CAN DO

- Develop a national policy on observer programs that addresses funding, coverage levels, and data use.
- Allow regional-specific definitions of terms like “community,” “commercial fisheries,” and “recreational fisheries.”
- Allow flexibility in tailoring overfishing definitions to the life histories of stocks.
- Expand the Marine Recreational Fisheries Statistics Survey to the Western Pacific, modified for regional fishery context.
- Decentralize decisionmaking and improve communication among headquarters, regions, and councils.
- Improve the biological information base on sharks and tunas.
- Improve the information base on turtle bycatch.
- Conduct research on avoiding concentrations of bycatch.
- Clarify the operational meaning of “ecosystem management.”
- Dedicate a NMFS Regional Administrator to the Western Pacific.

3. WHAT THE WESTERN PACIFIC FISHERY MANAGEMENT COUNCIL CAN DO

- Pursue market development opportunities for blue sharks.
- Evaluate the performance of limited-access programs.
- Improve the transparency of Council operations.
- Improve the dissemination of Council documents.
- Develop informal informational meetings with stakeholders.
- Conduct strategic planning involving all Council groups.
- Elevate the scientific basis of management to higher priority.
- Coordinate siting of marine protected areas with communities.