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*A REPORT TO THE
CONGRESS*

EASTLAND FISHERIES SURVEY

Atlantic States Marine Fisheries Commission
Gulf States Marine Fisheries Commission
Pacific Marine Fisheries Commission

A Report To The Congress

EASTLAND FISHERIES SURVEY

Prepared by the Atlantic States, Gulf States, and Pacific Marine Fisheries Commissions, pursuant to P.L. 93-433 and S. Con. Res. 11 (93rd Congress, 1st Session, 1973) under National Oceanic and Atmospheric Administration Grant No. 04-5-158-68.

May, 1977

**Atlantic States Marine Fisheries Commission
Gulf States Marine Fisheries Commission
Pacific Marine Fisheries Commission**

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Atlantic States Marine Fisheries Commission
Gulf States Marine Fisheries Commission
Pacific Marine Fisheries Commission

April 22, 1977

Hon. James O. Eastland
President Pro Tem of the Senate
U.S. Senate, Washington, D.C.

Dear Senator Eastland:

Submitted herewith is the Eastland Fisheries Survey report requested by your resolution S. Con. Res. 11 of 1973. The report is based on the views of all sections of the commercial and recreational fisheries interests collected in various local hearings, regional meetings and the National Conference in Washington, D.C.

We are sending copies of this report to all members of Congress, departments and agencies responsible for administering fishery-related programs, and to the many participants who provided valuable input to or helped conduct the Survey.

Respectfully,

Irwin M. Alperin, Executive Director
Atlantic States Marine Fisheries Commission

Charles H. Lyles, Executive Director
Gulf States Marine Fisheries Commission

John P. Harville, Executive Director
Pacific Marine Fisheries Commission

ACKNOWLEDGMENTS

This final report has been prepared under the supervision of the Executive Directors for the three interstate marine fisheries commissions charged with implementation of the Eastland Fisheries Survey:

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Finally, many state and federal fishery agency officials gave assistance throughout the project with planning for and conduct of regional and national meetings and reviews.

SUMMARY OF RECOMMENDATIONS

This summary lists in concise form the recommendations set forth in this report. Where appropriate, recommendations which relate to the same point or overlap have been combined.

The summary includes the recommendations of the National Conference for the Eastland Fishery Survey and recommendations of regional or national significance from the regional reports which were not specifically addressed at the National Conference. Each summarized recommendation is referenced to the full recommendation in the report. The recommendations not developed at the National Conference which are reported in the section "Additional Recommendations from the Regional Reports" are identified by the letters "Add." preceding the number of the recommendation. The summary is divided into the following categories:

- I. *CONSERVATION, MANAGEMENT AND GENERAL SUPPORTIVE SERVICES*
 - A. Institutional Arrangements
 - B. Development of Effective Management Programs to Conserve Stocks
 - C. Conservation of Habitat
 - D. Information and Education
- II. *UTILIZATION AND DEVELOPMENT*
 - A. Assistance to Commercial Fisheries
 - B. Aquaculture
- III. *MARINE RECREATIONAL FISHERIES*
 - A. Recognition of Marine Recreational Fisheries
 - B. Improved Access
- IV. *SPECIAL NEEDS OF ISLAND TERRITORIES*

I. CONSERVATION, MANAGEMENT AND GENERAL SUPPORTIVE SERVICES

Recommendation
Number

A. Institutional Arrangements

1. Consolidate all federal fishery-related activities within a single cabinet-level Department and designate a Fishery Agency within this Department whose director shall report to the highest possible Departmental level. I.A.3
2. Delegate to the Fishery Agency jurisdiction over all federal fishery conservation, management, and development programs and activities in marine and inland waters. These include full management authority under the Fishery Conservation and Management Act of 1976 (P.L. 94-265) for promulgation of federal regulations concerning seasons, quotas, gear restrictions, and other controls over harvesting; also all other fishery-related functions presently delegated to the federal government by law or treaty. Delegate to the Congress authority to establish taxes, licenses, fees, permit costs, fines, and penalties on foreign fishing vessels. I.A.3
I.A.6
I.A.7
3. Assign to the Department containing the Fishery Agency responsibility and authority for coordinating all federal regulatory, enforcement, and management functions which affect the fishing industry. I.A.5
4. In development of fishery policy, emphasize the high priority importance of use of fish for food in all fishery activities, including commercial fisheries, recreational fisheries, and aquaculture; while at the same time recognizing the recreational values of marine fisheries to the nation. I.A.2
I.A.4
5. By appropriate Congressional action, create an Office of Fishery Policy to assist the Congress in exercising an expanded oversight and policy development capability, and constitute a permanent advisory committee comprised of regionally balanced user representatives to serve that Office of Fishery Policy. I.A.1

B. Development of Effective Management Programs to Conserve Stocks

1. With particular reference to the Fishery Conservation and Management Act of 1976:
 - a. Provide for balanced membership on each of the Regional Fishery Management Councils to assure equitable representation of fishery user groups and to maintain an equal partnership between user-group interests and government. I.B.6
III.B
 - b. Encourage Regional Councils to consider carefully gear and/or user conflicts which may have adverse effects on fish stocks or which cause severe social stresses among fishermen, and to develop equitable dispute settlement mechanisms which will incorporate rigorous but fair enforcement and sufficiently severe penalties to discourage violations. I.H
 - c. Give first priority to domestic fisheries when allocating allowable catches of underutilized species. I.B.7
 - d. In establishing allowable catches for both foreign and domestic fisheries, utilize U.S. criteria and calculations for determining optimum yield (rather than any foreign interpretation or calculation). I.B.5
 - e. To the extent possible, promote uniformity of fishery regulations, and limit those regulations to the minimum required for sound resource management. I.B.2
2. Concerning need for improved fishery information systems:
 - a. Establish national and/or regional data centers for acquisition and dissemination of fishery data on a timely basis for use by fishery management planning and regulatory agencies and by resource users. I.D.2
 - b. Include in the data base developed for management purposes both the objective data which are a product of research, and the subjective informa- I.D.1

tion which can be provided by experienced fishermen and other resource users.

- c. Maintain confidentiality of data obtained from the operation of individual fishermen by pooling or summarizing such information whenever used in published reports. I.D.3
- 3. With respect to financial support:
 - a. Significantly increase federal funding to cover the costs of improved research and management of commercial and recreational fisheries, to include additional funds for national and regional programs as well as for supplementation of grant-in-aid monies apportioned to the states. I.F.1
III.A.2
III.C
 - b. In budget preparation, treat fishery grant-in-aid programs as budget elements separate from the general support budget for the Fishery Agency. I.A.2
 - c. Obtain a major portion of the funding for fishery programs from general tax revenues of the federal and state governments; but at the same time augment national programs from foreign fees, licenses, and fines and local programs through licenses imposed on domestic users. I.F.2
 - d. Assure adequate funding on an annual basis for sea lamprey control in the Great Lakes to provide conditions suitable to maintain a desirable and productive species balance. I.G
- 4. Concerning continuing policy problems in fishery management, the Congress should take action on the following:
 - a. Review existing treaties with native Americans and related claims for their special rights to fishery resources toward the object of creating appropriate institutional arrangements to conserve and enhance the fishery resources, while protecting those rights reserved to native Americans. I.B.4
 - b. Recognize that severe allocation problems of the Pacific Northwest salmon fishery have been compounded by court decisions reserving fifty percent of the harvestable salmon and steelhead to treaty Indians. Add: VII
 - c. Amend the Marine Mammal Protection Act of 1972 to allow rational management of marine mammal populations as integral segments of the marine ecosystem to make possible, where necessary, the prevention of overpopulation of these organisms with resultant deleterious effects on economically important species upon which marine mammals feed. Add: IV
 - d. Maintain international organizations and establish new ones where required to manage tuna populations effectively in the Atlantic and Pacific Oceans. Add: I.A
 - e. Assure continued access by U.S. fishermen to traditional fishing grounds in the conservation zones of other nations. Add: I.B
 - f. Recognize effort limitation as a useful management tool to help resolve allocation problems, but also recognize that users are not united in their support of limited entry, and that they stress the need for thorough evaluation of effort management techniques and potential impacts, that evaluation to include direct industry input prior to implementation. Add: VII
 - g. Recognize the increasing importance of non-consumptive uses of aquatic resources such as observation and study, and ensure that these activities are given fair consideration in resource management decisions. Add: VIII

C. Conservation of Habitat

- 1. Endorse the statement in the *National Plan for Marine Fisheries*, with minor modification, as restated below:
 - Reverse the downward trends in quantity and quality of fish habitats by I.C.1

minimizing further losses and degradation of these habitats, restoring and enhancing them where possible, and establishing protected areas where necessary, while recognizing other compatible essential uses of fish habitat areas.

- a. Improve the consideration given to fish habitats in key decision-making processes.
 - b. Mitigate losses of habitat, where possible restore habitats lost or degraded, and develop economically feasible enhancement opportunities.
 - c. Establish sanctuaries, reserves or other systems when necessary to protect critical fish habitats and maintain fish production.
 - d. Improve the quality and increase the dissemination of information required for effective fish habitat conservation.
2. Prevent rapid development of coastal and marine areas including those of the Continental Shelf where based on hastily gathered and often critically incomplete data. I.C.2
 3. Take stronger action to assure abatement and control of pollution that contaminates fish or adversely influences fish environment, and prevent development of new environmental degradation or fish contamination. Add: X
 4. Control fluctuations in water levels in the Great Lakes to minimize damage to fish habitat, docks, boat houses, boats and related facilities. Add: XI

D. Information and Education

I.E.2
I.E.12
III.D.2

In order to improve coordination and communication among agencies, and between agencies and the public, the federal Fishery Agency should establish a Technology Transfer Division with responsibility to gather and synthesize information; prepare bulletins, seminars, and films; disseminate informational materials to the fishing industry and the public; and be responsive to needs of the fishing industry and the consuming public. Education and extension programs presently provided by the National Marine Fisheries Service, Sea Grant Marine Advisory Services, Department of Agriculture Cooperative State Research Service, and other organizations should be encouraged and coordinated by the federal Fishery Agency.

These should include, but not be limited to the following programs and services:

1. Establish an educational program supported jointly by industry and government to prepare retailers and merchandisers to properly handle and display fish products, as first step toward increasing consumer acceptance of those products and thereby increasing domestic consumption. II.A.5
2. Develop a parallel program of consumer education to promote increased utilization of all types of seafood and thus expand domestic markets for fish and fish products. I.E.7.f
3. Provide informational bulletins to fishermen, processors, and retailers concerning economic analyses, marketing, harvesting and gear technology, processing, quality control, and other appropriate subjects. I.E.1
I.E.5
I.E.7
II.H
4. Distribute fishery market news reports to the fishing industry at no cost. I.E.1
II.A.4
5. Provide educational and technical services to assist commercial fishermen with management of personal finances, tax preparation, loan applications, and establishment of cooperatives. I.E.6
6. Establish and maintain training programs for commercial fishermen entering the industry in such supporting fields as welding, refrigeration, navigation and hydraulics, and design these programs to meet regional needs, with full I.E.3
II.G

	Recommendation Number
recognition that for many elements of the training required, on-the-job training is superior to institutional course work.	
7. Provide technical assistance to federal agencies and the states for establishment of access facilities, and provide aids to recreational fishermen such as fishing maps, methods of catch and care, and quality control of the catch.	I.E.8
8. Conduct workshops in appropriate areas designed to educate the public regarding special fishing rights of Indians.	I.E.9
9. Conduct workshops and seminars to educate the public regarding habitat preservation.	I.E.10

II. UTILIZATION AND DEVELOPMENT

A. Assistance to Commercial Fisheries

1. Financial Assistance

- | | |
|---|-----------|
| a. Develop tax guidelines for vessel and plant construction, modification and modernization which provide depreciation schedules having a similar time duration as financing schedules. | II.B.1 |
| b. Develop a revised handbook of procedures for consistent interpretation of tax laws and tax reporting for fish harvesting, processing, and aquaculture. | II.B.2 |
| c. Change Internal Revenue Service regulations which require boat owners to withhold taxes for crew members, and consider crew members as free agents while limiting boat owner responsibility to providing names, social security numbers, mailing addresses and summary of earnings per trip for each member. | Add: XII |
| d. Extend the application of the Capital Construction Fund, as embodied in the Merchant Marine Act of 1936 as amended, to include shoreside facilities directly related to harvesting, processing, marketing, and aquaculture of fish products by citizens of the United States. | II.B.3 |
| e. Compile a manual describing government, Production Credit Association, and other credit sources applicable to the fishing industry and where such sources of credit can be obtained, with necessary guidance and assistance for execution of loans. | II.B.4 |
| f. Institute a program to provide loans to compensate fishing operations hurt by natural resource disasters, pollution, or foreign competition and provide unemployment compensation for fishermen displaced as a result of such disasters. | Add: XV |
| g. Encourage development of underutilized fisheries through legislation establishing grants or long-term, low-cost loans for pilot programs. | II.B.5 |
| h. Support and encourage development of commercial fisheries in the overseas territories and possessions of the United States by exempting those areas from Jones Act requirements that fishing vessel hulls over five net tons must be of United States construction. | II.B.6 |
| i. Fishermen who haul their own products should be exempted from the Federal Highway Use Tax or taxed at a lower rate than other common carriers. | Add: XXIV |

2. Insurance

- | | |
|--|--------------------------|
| Convene a technical committee consisting of industry representatives, legislative analysts, academic insurance advisors and labor law specialists to analyze insurance provisions of the Jones Act and Longshoremen's and Harborworkers' Act to determine if a need exists for legislative change. | II.E
Add: XVI
XVII |
|--|--------------------------|

	Recommendation Number
3. Tariffs	
a. Reduce tariffs on imported nets and webbing by passing legislation similar to S. 3270, but amended to allow for a gradual reduction in the tariff rate.	II.D.1
b. Determine the effect of imported fish products on domestic markets with special attention to direct and indirect subsidies of foreign industries, relative costs of production, and effects of existing tariff structures, and take necessary actions to modify tariff structures to encourage and support domestic fishery development.	II.D.2
c. Establish a mechanism whereby duties could be imposed on imported fish products which depress prices for domestic products, and incorporate flexibility to allow for reduced duties during periods of domestic shortages.	Add: XIII
d. Terminate existing and prohibit future international aid programs funded with United States capital which encourage development of foreign fishery operations that export fish products to the United States in direct competition with domestic fisheries.	II.D.3
4. Safety	
a. Designate the Coast Guard as the responsible agency for development and implementation of maritime safety regulations and delegate fishery safety education to the federal Fishery Agency, Sea Grant and trade associations.	II.F.1
b. Restrict jurisdiction of the Occupational Safety and Health Administration to shoreside operations with 10 or more employees.	II.F.2
5. Port and Harbor Development	
a. Develop a compendium of all federal assistance programs which relate to public and private port and harbor facility development to include a step by step approach to funding, and distribute to interested parties as guidelines for more effective port and harbor development programs.	II.C.1
b. Ensure that the needs of commercial and recreational fisheries are met whenever port and harbor developments, modifications or improvements are federally funded or supported.	II.C.2 III.D.3.a
6. Commercial Passenger Fishing Vessels	
Define the commercial passenger fishing fleet as commercial fishing vessels in order that they may receive federal loan subsidies, loan guarantees, tax benefits, fuel allocations and other benefits which the balance of the United States flag commercial fishing fleet receives.	II.K
7. Navigational Aids	
a. Extend the period of transition from the LORAN A navigational system to the LORAN C system to five years from the date on which LORAN C is implemented, and provide nautical charts with both LORAN A and C bearings printed on the same side.	Add: II.A
b. Ensure that the Coast Guard receives adequate funding to allow use of modern electronic equipment, compatible with that used by the fishing industry, so that they can locate and aid distressed vessels more effectively.	Add: II.B
8. Marine Weather Forecasting	
Increase funding of National Weather Service programs so that the frequency, accuracy and timeliness of forecasts are increased and the capability to provide long range forecasts is enhanced.	Add: III
9. Fuel Allocation	
a. Provide a more flexible system of allocating fuel to fishing fleets during times of fuel scarcity to include issuance of fuel coupons to vessels which could be provided to fuel dealers in any port.	Add: XXII
b. Increase allocations of fuel to the domestic fishing fleet, recognizing that the fishing industry is a basic food producer.	Add: XXII

- | | Recommendation
Number |
|---|--------------------------|
| 10. Foreign Investment in Domestic Fisheries | |
| a. Encourage, through tax incentives, investments of capital in American shore-based plants which process fish caught by American fishermen and limit foreign investment to shoreside facilities utilizing domestic labor and serving domestic markets wherever possible. | Add: VI |
| b. Review and analyze carefully agreements whereby domestic fishermen sell their catch to foreign operations at sea, particularly where the foreign processors can in turn deliver their product to United States markets. | Add: VI |
| 11. Regulation of Vessel Construction | |
| Establish shipbuilding standards to prevent design and construction of unsafe vessels and allow federal documentation of vessels only after they pass adequate stability and loading trials. | Add: V |
| 12. Office of Sea Grant | |
| Encourage the Office of Sea Grant to direct its programs specifically toward solving the problems related to production of food from the sea. | Add: XIX |
| 13. Processing | |
| a. Simplify the overlapping and conflicting regulations and attendant paperwork by authorizing the federal Fishery Agency to coordinate all regulatory, permitting, inspection and enforcement functions which impact the seafood processing industry. | II.J.1 |
| b. Revise unrealistic regulations and guidelines established by such agencies as the Occupational Safety and Health Administration, Environmental Protection Agency and Food and Drug Administration by making them applicable to the fishing industry and supply technical assistance and long-term, low-interest loans to reduce the detrimental economic impact of such regulations. | II.J.4
Add: XXIII |
| c. Adopt the position that seafood processing wastes are unique in their relationship to the marine environment and recognize that return of these materials to the environment can be beneficial under properly managed conditions. | II.J.2 |
| d. Require states to determine the economic impact of their effluent treatment regulations when such states impose regulations which are more restrictive or require more expensive treatment systems than those established by the Federal Government. | II.J.2 |
| e. Authorize an expanded research effort on the part of the Food and Drug Administration to develop better bacteriological standards for shellfish growing waters and to examine the possibility of allowing shellfish harvested from closed waters to be used for thermally processed products. | I.C.1 |
| 14. Marketing | |
| a. Establish through joint industry and government action national standards for size, grade, portion and nomenclature of domestic and imported fish products. | II.A.1 |
| b. Establish for each fishery through joint industry and government action good practices for harvesting, handling and processing fish and fish products with specified quality control and mandatory inspection, and require imports to meet these standards at the time of entry into the United States. | II.A.2 |
| c. Implement an expanded market development program encompassing promotion and advertising of domestic fish products, as well as consumer education, with joint industry/government participation and funded jointly with a matching money scheme. | II.A.3 |
| d. Formulate regional programs jointly developed by industry and government to expand domestic and export markets for fish species and products not fully utilized. | II.A.6 |

	Recommendation Number
<ul style="list-style-type: none"> e. Alleged price-fixing and other market restraints by the major domestic market centers should be investigated by the Department of Justice. 	Add: XXV
B. Aquaculture	
<ul style="list-style-type: none"> 1. Designate a federal Agency with primary responsibility for coordination of all aquaculture programs of the Federal Government, including research, development, and regulation, and instruct the Agency to develop a national program for aquaculture development in the United States. 	II.I.1 II.I.5
<ul style="list-style-type: none"> 2. Create a permanent Advisory Council to the Director of the Agency responsible for aquaculture, that Council to be composed of representatives from industry, cooperative extension services, state agencies and universities, appointed by the Secretary of the Department to which the aquaculture Agency is assigned. 	II.I.2
<ul style="list-style-type: none"> 3. Provide support to aquaculturists similar to that which farmers receive from the Department of Agriculture. 	II.I.6
<ul style="list-style-type: none"> 4. Provide long-term, low-interest loans with amortization for aquaculture. 	II.I.3
<ul style="list-style-type: none"> 5. Create a federal protection and indemnity (P&I) insurance program to apply where no reasonable insurance is available to the aquaculture industry. 	II.I.4
 III. MARINE RECREATIONAL FISHERIES	
A. Recognition of Marine Recreational Fisheries	III.A.1
<p>Recognize through appropriate legislation that marine recreational fisheries are vitally important to the nation, since appropriate recognition would aid in securing adequate funding for marine recreational fishery programs, and would support equitable allocation of fishery resources to recreational fishermen under the optimum yield concept. Specifically, recognize that marine recreational fisheries:</p>	
<ul style="list-style-type: none"> 1. are personal-use fisheries and as such contribute substantially to the nation's food supply, 2. provide opportunity for millions of Americans to enjoy healthy outdoor recreation, and 3. support an important industry which generates an estimated \$2.7 billion in primary economic benefits annually. 	
B. Improved Access	
<ul style="list-style-type: none"> 1. Encourage through long-term, low-interest loans the establishment of needed facilities such as launching ramps, marinas and fish handling stations. 	III.D.3.a
<ul style="list-style-type: none"> 2. Provide navigational and communications networks needed by recreational fishermen. 	III.D.3.b
 IV. SPECIAL NEEDS OF ISLAND TERRITORIES	
A. Consolidate and coordinate federal agency relationships with the Island Territories toward the object of enhanced conservation and development of fishery resources.	Add: IX.A
B. Consider the special characteristics and problems of the Island Territories, including geographic remoteness, the undeveloped and dependent nature of their economies, and the need to stimulate their economic and social sufficiency, when enacting federal laws which impinge significantly upon fishery conservation and development in those islands.	Add: IX.B
C. Accord high priority to procedures necessary to protect and enhance the reef and shoreline environments which provide a major share of the subsistence needs of island residents, and support plans for development of island resources only if they provide maximum protection for the nearshore and reef ecosystem and the subsistence needs of the people.	Add: IX.C

Recommendation
Number

- D. Assist the Island Territories to develop commercial fisheries through programs which are sequentially planned and vertically integrated to include conservation of stocks and habitats, and harvest, processing, storage and marketing of the catch.** Add: IX.D
- E. Provide recreational benefits to island visitors and generate additional local income by encouraging growth of recreational fisheries in the Island territories, and development of charter boat and other services required to serve those fisheries.** Add: IX.E

INTRODUCTION

On February 7, 1973 Senator James O. Eastland of Mississippi, President Pro Tempore of the Senate and Chairman of the Committee on the Judiciary, introduced Senate Concurrent Resolution 11 for himself and 43 other Senators to "launch a nationwide program to save our commercial fishing industry and serve our sportfishing industry." The Resolution was unanimously passed by the Senate and House in December, 1973.

Over the past quarter century the various segments of our fishing industry, with few exceptions, have been in serious decline. The United States has fallen from second to sixth place in world fish production since World War II. U.S. production has remained constant during this period while domestic demand for fish and fish products has risen at a faster rate, 7.1 percent annually, than in any other country. This increased demand has been met by increased imports, currently accounting for more than 60% of the seafood consumed in this country and causing an annual balance-of-trade drain of approximately a billion dollars. The U.S. fishing industry is contending with the problems of severe competition with subsidized foreign fleets and foreign products, obsolescence of vessels and gear and the economic impact of rising costs and extremely high insurance rates. Resolution 11 recognizes the plight of U.S. fisheries and states, "That it is the policy of the Congress that our fishing industry be afforded all support necessary to have it strengthened, and all steps be taken to provide adequate protection for our coastal fisheries against excessive foreign fishing." The Resolution also specifically recognizes the prerogatives of the states to manage fisheries within their jurisdiction, and therefore the need for continued State-Federal cooperative action in fisheries conservation and management.

In introducing Resolution 11, Senator Eastland recommended that the interstate marine fisheries commissions aid the Congress "to gather the facts, the ideas and suggestions, the wealth of information we must obtain from every corner of our country." Senator Eastland then called for a meeting at the national level to bring together the information gathered from the various sources and, in cooperation with officials of the National Oceanic and Atmospheric Administration, to develop a program for presentation to the Congress.

The Congress appropriated \$500,000 in October 1974 (P.L. 94-433 93rd Congress, 2nd Session) for development of the program by the three interstate marine fisheries commissions. This appropriation was allocated: \$175,000 to the Atlantic States Marine Fisheries Commission; \$200,000 to the Gulf States Marine Fisheries Commission and \$125,000 to the Pacific Marine Fisheries Commission. Each of the commissions made a part of its allocation available to provide \$20,000 for a survey of the commercial and recreational fishing industry of the Great Lakes, which was coordinated by the Atlantic States Marine Fisheries Commission.

Guidelines For The Survey

The interstate fisheries commissions adopted a common approach for making the Eastland Fisheries Survey in their regions. The first phase was to identify the current activities being undertaken by the National Marine Fisheries Service and other governmental agencies under existing legislation to assist the fishing industry. A report was prepared for the Gulf States and Atlantic States Marine Fisheries Commissions by Coopers and Lybrand, Washington, D.C., September 15, 1975, "Responsibilities, Activities And Authorizations Of Federal Agencies Having Bearing On United States Marine Fisheries, Both Commercial and Recreational, And Related Industries: A Survey For The Eastland Resolution Plan." That report and "The National Plan For Marine Fisheries," issued by the U.S. Department of Commerce in October 1975, were used as major sources of information for this phase. In many areas, commercial and recreational fishermen and persons in related industries were familiar with the National Plan as a result of their participation in local and regional meetings to provide information for its development. In the Great Lakes, where the U.S. Fish and Wildlife Service has the principal federal responsibility for assistance to the fishing industry, "A National Program for the Conservation and Enhancement of the Fishery Resources of the Great Lakes—Part 1: The Role of the U.S. Fish and Wildlife Service," issued in May 1975 by the Fish and Wildlife Service, was also used as a source of information.

The second phase was to gather from all sectors of the commercial and recreational fisheries interests their evaluations of the current activities of federal agencies to assist those fisheries and their views on needs not being adequately met. Information was sought on the importance and priority of the needs.

The final phase was to analyze the needs and priorities in all sectors of the industry from various regions of the country and to develop a national consensus on recommendations to the Congress for new legislation, modification in existing legislation or modifications in activities under existing legislation. A National Conference was held in Washington, D.C. to develop these national recommendations.

Survey Methods

Using the aforementioned guidelines, each of the interstate fisheries commissions sought information from the fishermen, gear manufacturers, boat builders, suppliers, canners, processors and the public in its area. The survey methods employed by the three commissions differed but were designed in each area to obtain as wide a coverage of each sector of the industry as possible considering the time and money available.

ATLANTIC AREA

The Atlantic States Marine Fisheries Commission employed staff and consultants to conduct the Eastland Fisheries Survey along the Atlantic Coast. State natural resources agencies, Sea Grant staffs in the states, and representatives of commercial and recreational fishery organizations provided substantial assistance to the Commission in this work.

Meetings were held in the Mid-Atlantic States, New Jersey, Delaware, Maryland and Virginia, from September 1975 through February 1976. From February 1976 through June 1976 meetings were held in the New England Area, Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut and New York. The South Atlantic section of the survey, covering the States of North Carolina, South Carolina, Georgia and Florida, was conducted from June through September 1976.

Over 150 meetings attended by more than 4,000 persons, were held along the Atlantic Coast. Information was gathered from recreational fishermen, commercial fishermen, packers, importers, exporters, institutional buyers and suppliers. Vessel and gear manufacturers and suppliers of related equipment were interviewed.

The information obtained from the meetings in each of the three sections; New England, Mid-Atlantic and South Atlantic was summarized in a report titled "Eastland Survey of Fisheries of the Atlantic Coast Region".

GREAT LAKES AREA

Meetings were held with the commercial fishermen's organizations in Michigan, Minnesota, Ohio and Wisconsin. More than 300 persons attended these meetings. Individual contacts were made with commercial fishermen in Illinois, Indiana, Pennsylvania and New York.

A questionnaire which provided the opportunity to furnish additional information on the needs of the fishing industry was given to each person attending the meetings and to each fisherman contacted individually. The questionnaire was also sent to all commercial fishermen licensed to fish in the U.S. waters of the five Great Lakes. The questionnaire and an explanation of the Eastland Fisheries Survey was included as a centerfold tear-out in the April 1976 issue of "The Fisherman" published by the Marine Publishing Company of Grand Haven, Michigan. This magazine has a circulation of 1500 among persons interested in the fisheries of the Great Lakes.

The information obtained from the meetings, contacts and questionnaires was summarized in 24 preliminary recommendations. A regional meeting was held in June 1976 at Traverse City, Michigan of representatives of the commercial fishermen of the five Great Lakes, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to review these preliminary recommendations.

Information from the recreational fishermen and the general public was obtained by direct contact with individuals, mostly from contacts during the course of various meetings related to the Great Lakes. This information was summarized in 14 tentative recommendations.

The 24 recommendations from the commercial fishermen and the 14 recommendations from the recreational fishermen and the general public were submitted for review to the fishery agencies of the eight Great Lakes States and the regional offices of the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. The state fishery agencies were also asked to complete a questionnaire giving their views on the needs of the commercial and recreational fishing industries and to furnish any additional comments they felt appropriate.

As a final step, the recommendations and comments from all sources were consolidated into 14 recommendations, which are set forth with supporting information in the report, "Eastland Fisheries Survey of the Great Lakes", October 1976.

GULF OF MEXICO AREA

The Gulf States Marine Fisheries Commission's Eastland Fisheries Survey covered the five member states, Alabama, Florida, Louisiana, Mississippi and Texas; Puerto Rico, the U.S. Virgin Islands and the catfish and crawfish industries. The Commission established a 16-member Eastland Resolution Subcommittee represent-

ing the various interests in the five Gulf States to help in making the survey. A member of the Commission staff was assigned to work full time on the survey. Gulf South Research Institute, a private, nonprofit research corporation, was engaged by the Commission to arrange and conduct public meetings and interviews and produce the final report. The work was done under the supervision of the Commission staff and the Eastland Resolution Subcommittee.

The study team held 38 public meetings throughout the five Gulf states, Puerto Rico and the Virgin Islands. In addition to these public meetings on marine fisheries problems, the study team held a public meeting in Baton Rouge, Louisiana on the commercial crawfish industry and held many informal meetings throughout the Gulf region and in Arkansas with representatives of the commercial catfish industry.

The study team also conducted personal interviews to supplement and clarify opinions expressed in the public meetings and to insure adequate representation from all segments of the fishing industry. In all, 1242 persons were enabled to express their opinions in the 38 public meetings and 285 persons in the interviews.

The information gathered in the Eastland Fisheries Survey of the Gulf Region is presented in "The Fisheries Industry In the Gulf Region", October 1976, prepared by Gulf South Research Institute, Baton Rouge, Louisiana. The report consists of three parts. Part I discusses the results of the meetings and interviews held in the Gulf states. Part II is concerned with the marine fisheries of Puerto Rico and the U.S. Virgin Islands. Part III covers the commercial crawfish and catfish industries.

The Eastland Resolution Subcommittee of the Gulf States Marine Fisheries Commission utilized this material to develop a report titled, "Proposed Solutions to the Problems of the Fisheries and the Fishery Industry of the Gulf Region". This report, as revised following review by the various segments of the fishing industry, lists specific recommendations for Federal legislative and administrative action or change.

PACIFIC AREA

The Pacific Marine Fisheries Commission conducted a series of 15 meetings in 1976 to obtain information from the various sectors of the commercial and recreational fishing industries. Approximately 800 participants attended meetings and more than 300 worksheets were returned and evaluated.

Meetings consisted of a "town hall" type opening session where problems of a general nature were discussed and questions answered, followed by fishery-by-fishery sub-group discussion sessions. Discussion was stimulated by use of a worksheet which listed a series of fishery activities and related federal programs and provided space for evaluations, recommended priorities and remarks by participants. Each session was chaired by an industry and/or state agency person. A recorder was present to take notes and tape the discussion. A summary of suggestions and comments was developed for each meeting and mailed to participants for corrections and additions. Recommendations were also obtained from worksheets and letters and incorporated with discussion summaries for each meeting.

A Pacific Coast summary for each fishery was then prepared by combining the input from all geographical areas where that fishery was surveyed. Areas of consensus were identified and emphasized and where differences of view occurred, alternatives were presented. The summaries were mailed to all participants for additional review.

Since Pacific salmon fisheries are so complex and the input on them was so voluminous, a special regional workshop was convened to develop a comprehensive but reasonably concise summary. Representatives of all sections of the coast and of the array of user groups were present. A similar process was used to summarize Pacific Coast trawl fisheries.

Because fisheries needs in Hawaii are unique to that island State, a three-day special workshop was organized in Honolulu and attended by 48 invited delegates representing commercial and recreational fishing interests on all the major islands. A special report was developed detailing Hawaii's recreational and commercial fisheries needs and problems.

Fisheries of the Pacific island Territories were surveyed during a 39 day trip in April, May and June 1976. Interviews were held with government officials, local political leaders, spokesmen for fisheries interests and fishermen in the Pacific Islands subject to U.S. jurisdiction. Major centers visited were American Samoa, Guam, and the six district headquarters of the Trust Territory of the Pacific, Saipan, Palau, Truk, Yap, Ponape and Majuro.

The "Summary of Pacific Area Input to the Eastland Fisheries Survey", prepared by the Pacific Marine Fisheries Commission includes fishery by fishery recommendations compiled for the Pacific States and Alaska and special sections analyzing needs and problems of Hawaii and the Pacific island territories.

National Conference for the Eastland Fisheries Survey

As recommended by Senator Eastland, a National Conference for the Eastland Fishery Survey was held from November 29 to December 2 at Arlington, Virginia to bring together the information gathered from the various sources and to develop a program for presentation to the Congress. The recommendations and supporting information contained in the reports of the Eastland surveys in the Atlantic, Great Lakes, Gulf of Mexico and Pacific regions provided the basic material for consideration by the Conference. A limited number of copies of the regional reports are available at the respective interstate marine fisheries commission offices and have been distributed to selected libraries and state fishery agencies.

The following recommendations and policy statements contained herein were developed by approximately 70 delegates representing the fishing industry of the United States. Delegates were chosen on a regional basis to represent the array of fisheries and fishery activities in each region, including commercial and recreational fishing, processing, marketing and aquaculture. The needs expressed in these recommendations apply equally to marine, estuarine, and freshwater fisheries. The recommendations call for responses from the federal government to increase the support for U.S. fisheries, either through Congressional or Administrative action. It is recognized that the appropriate action will not be in all cases one which requires new legislation or new Executive Branch programs. Increased emphasis on existing programs or amendments to existing legislation may be sufficient. It is worthwhile emphasizing that these recommendations are based entirely on grass roots input. They represent the attitudes and needs of the user groups, not what government perceives the problems and solution to be. In this respect the Eastland Survey differs somewhat from similar studies conducted by the General Accounting Office, Office of Technology Assessment, and the National Marine Fisheries Service. It is interesting to note, though, that the *National Plan for Marine Fisheries* developed by NMFS expresses many solutions similar to those presented in the following pages.

The goal of this Conference, as well as the entire survey effort in each region, was to produce a national policy for fisheries. Clearly if we are to provide support for fisheries in an effective manner, then a comprehensive program which addresses all aspects of fisheries is needed. A piecemeal or stop-gap approach to solving problems is not sufficient. It would be unwise, for instance, to provide financial incentives for fishery development without strong programs to conserve and enhance fishery habitats and stocks, or plans to develop ports and harbors which would accommodate the increased number of vessels. To strengthen U.S. fisheries, government must evaluate needs of the entire array of activities associated with fisheries. This includes commercial and recreational fishing, processing, marketing and aquaculture—all of those activities which collectively comprise what is commonly referred to as the fishing industry. A comprehensive national policy must include all these things.

In order to address all of these issues completely and to facilitate discussion, the National Conference delegates were assigned to one of three panels which corresponded to major areas of emphasis: Conservation and Management, Utilization and Development, and Marine Recreational Fisheries. The first panel discussed items of importance to all resource users, i.e., institutional arrangements for management which would provide the greatest benefit to fisheries, expanded stock assessment and data collection programs to promote effective management, and conservation and enhancement of habitats to maximize the production of fish and shellfish. The panel which focused on utilization and development was concerned with ways to increase the support for commercial fisheries and aquaculture. Panelists discussed such problem areas as marketing, financial assistance and insurance. The third panel covered the basic concerns of marine recreational fisheries (MRF), including recognition of the importance of MRF in the U.S. and the need for increased funding for MRF programs.

Each panel developed a series of recommendations in separate concurrent sessions, after which the entire group met in a plenary session to review all recommendations. Nearly all panel statements were endorsed by the Conference as a whole without major changes. Because the panels deliberated independently, some repetition of major points occurred (e.g., need for a strong data base; importance of stock and habitat protection). Since the contexts differ somewhat, and since the repetition indicates significant agreement on emphasis, the editors did not make an attempt to combine these partial redundancies. Where notable overlap exists, a parenthetical notation is used to refer the reader to a similar recommendation occurring later in the document.

Nearly all of the statements developed by conferees and reproduced herein are based on recommendations and conclusions found in the respective regional survey reports (i.e., Atlantic, Great Lakes, Gulf, and Pacific). The conferees and editors agree that the material contained in these reports should not be neglected, and is important enough to be partially included in the national report. Therefore the editors have devised a notation system for referencing documentation from the regional reports which supports recommendations of

the National Conference. Numbers listed after recommendations refer to one or more direct quotes from regional reports listed in the documentation section following the Conference recommendations.

In addition to the deliberations of the Conferees, the National Conference agenda included a series of introductory remarks by government and industry leaders in the field of fisheries and reports on two other Congressional fishery survey activities.

NATIONAL CONFERENCE RECOMMENDATIONS

I. CONSERVATION AND MANAGEMENT

A. Institutional Arrangements

1. Create by appropriate Congressional action an Office of Fishery Policy to assist the Congress in increasing its oversight and policy development capability. This joint House and Senate office would also act to develop and analyze fishery legislation and provide treaty oversight. Membership could be drawn from the Senate Commerce Committee, the National Ocean Policy Study, the House Merchant Marine and Fisheries Committee, and appropriate House and Senate Agriculture Committees. Professional staff of this Office of Fishery Policy could assist legislative staffs of other committees in fisheries-related "homework" and policy analysis. A permanent advisory committee of regionally balanced representatives from the industry should be constituted to serve this Congressional Office of Fisheries Policy (1).¹
2. Emphasize all domestic fishery activities, including commercial fisheries, recreational fisheries and aquaculture, as food-producing activities. The Congress should note that the responsibility for this food industry is now fragmented, with most government responsibilities housed in a scientifically oriented office (National Oceanic and Atmospheric Administration) of a business oriented Department (Department of Commerce). The Congress should recognize that the American fishing industry requires services similar to those received by other food producers. Toward that object, Congress should provide line-item budget funding for all fishery programs (2A, B, C, D; 4A, B).
3. Consolidate all federal fishery-related activities within a single department. Designate a Fishery Agency within this Department with the responsibility for fishery management and development whose Director shall report to the highest possible Department level. The Fishery Agency should have jurisdiction over inland as well as marine fishery functions (3).
4. To improve the quality of life of the people in the fishing community and to conserve, develop, and fully utilize our valuable fishery resources, direct the federal Fishery Agency to take into account the following characteristics of fishery resource management and development: (4A, B).
 - a. Recognizing the importance of food to the world population, it shall be the policy of the United States that the first priority use of fish is for food.²
 - b. The definition of fishery resources should include fish, aquatic mammals, mollusks, crustaceans, algae and other aquatic life.
5. All federal regulatory, permitting, inspection, and enforcement functions which affect the fishing industry, including management of fish stocks, harvesting, processing, marketing and research, should be coordinated by the Department containing the Fishery Agency in conjunction with state fishery agencies (5A, B).
6. The federal Fishery Agency should have full management authority and responsibility as described in the Fishery Conservation and Management Act of 1976 (P.L. 94-265), as well as all other fishery functions and responsibilities presently delegated to the Federal Government by law or treaty.
7. The implementing legislation (P.L. 94-265) should differentiate clearly the functions and responsibilities of the Congress and the Executive. Responsibility for promulgating regulations concerning seasons, catch, gear and other controls on harvesting should be delegated to the

¹ The numbers in parentheses refer to documentation of recommendations listed in Section V.

² Subsequent to the National Conference several individuals representing recreational fishery interests, including the National Coalition for Marine Conservation and the Sport Fishing Institute, have taken vigorous exception to this policy statement. They stress apparent inconsistency with the now widely supported multiple-use objectives of the optimum yield concept (as enacted into federal policy in the Fishery Conservation and Management Act of 1976 (P.L. 94-265)). They advise that many individuals and organizations must actively oppose any attempt to replace the optimum yield concept with a policy mandating the first priority use to one user group. On the basis of extensive Conference discussions of related topics, the editors of this document believe the Conference participants in no way intended to repudiate or otherwise weaken the optimum yield concept; indeed separate sections of the Conference report deal forcefully with special development needs of both commercial and recreational fisheries. Proponents of the statement intended it to emphasize the primary importance of fish for food in both commercial and recreational fisheries, and thereby to stimulate a reorientation of the fisheries production component of the federal management agency toward food production goals and processes analogous to those in the Department of Agriculture. We refer the reader to Conference Recommendation I.A.2. in which Conferees explicitly stress this particular point.

Agency. Taxes, licenses, fees, permit costs, fines, and penalties on foreign fishing vessels should be established by Congress.

B. Resource Management

1. Develop effective management programs, based on the best scientific knowledge, which will provide for optimum resource utilization and which will assure that full benefits will be obtained from interstate, national and international programs for enhancement of fishery resources and environmental protection and improvement (see also I.D.; III.D.1.a.) (6A, B, C, D, E, F, G).
2. Promote uniformity of regulation, as well as limit regulations to a minimum required for sound management (5B; 7A, B, C).
3. Create new and utilize existing Regional Fishery Management Councils with responsibility to develop management plans and regulations and ensure that these plans are implemented.
4. Consider the various Indian treaties with the intent of creating, where needed, appropriate institutional arrangements to conserve and enhance the fishery resources while protecting those rights reserved by the Indians. Congress also should consider claims for recognition of resource rights by other native American groups (e.g., the Hawaiian people); also other wards of the U.S. Government, and should offer similar arrangements to conserve and enhance the fishery resources where applicable (8A, B, C).
5. Apply the U.S. calculation of optimum yield (OY), where the OY concept is used for management of stocks fished jointly by U.S. and foreign fleets. The U.S. should not rely on or endorse a foreign interpretation of OY when establishing allowable catches for foreign and domestic fisheries (9).
6. Vest regulatory and management authority foremost in the Regional Fishery Management Councils, and establish a balanced Council membership to provide equal partnership between government and fishery resource user groups. User groups shall be required to provide effective and direct input into management and planning on a parity with governmental input (10A, B, C).
7. Domestic fisheries should receive top priority in allocation of catches of underutilized species (11A, B).

C. Conservation and Enhancement of Fish Habitats (see also III.E.)

1. Recommendation 2, to conserve and enhance fish habitats, as presented on p. 37-43 of the *National Plan for Marine Fisheries*³ is strongly endorsed except that item 2.3 should be restated as below.

Recommendation 2 states as follows:

"Reverse the downward trends in quality and quantity of fish habitats by minimizing further losses and degradation of these habitats, restoring and enhancing them where possible, and establishing protected areas where necessary, while recognizing other compatible essential uses of fish habitat areas."

"2.1 Improve the consideration given to fish habitats in key decision-making processes."

"2.2 Mitigate losses of habitat, where possible restore habitats lost or degraded, and develop economically feasible enhancement opportunities."

"2.3 Establish sanctuaries, reserves or other systems when necessary to protect critical fish habitats, production, and associated recreational and aesthetic values."

"2.4 Improve the quality and increase the dissemination of information required for effective fish habitat conservation."

The Conference recommends that item 2.3 be restated as follows:

Establish sanctuaries, reserves, or other systems when necessary to protect critical fish habitats and maintain fish production. The integrity of the habitat should be protected (5B; 12A, B, C, D, E, F, G, H, I, J, K, L, M).

³ Appendix to A *Marine Fisheries Program for the Nation*, U.S. Department of Commerce, Washington, D.C., July, 1976

2. In consideration of this overriding emphasis on conservation and enhancement of fish habitats and stocks, the Conference is opposed to rapid developments of coastal and marine areas, including those of the Continental Shelf on the basis of hastily gathered and often critically incomplete data (13).

D. Establishment of an Adequate Data Base

Effective management requires information on the abundance, distribution, and condition of stocks, and the effects of various fishing levels and of environmental changes on stock abundance and distribution. Such information is being obtained for a number of stocks and areas at present by federal and state programs. However, the information presently available is far short of that which is needed for effective management of many fisheries (6A, B, C, D, E; 14A, B).

1. Develop a national responsibility and capability to provide a uniform and continuing data base for fishery management information. An urgent necessity exists for development of this data base by government in conjunction with the various components of the fishing industry, to include subjective data obtained from the fleet as well as objective data (15A, B, C).
2. Establish national and/or regional data centers for acquisition and dissemination of fishery data. Information deposited in data centers should be routinely updated and analyzed to develop basic information for immediate application by regulatory and planning agencies and resource users (16).
3. Maintain confidentiality of data obtained from the operation of individual fishermen. Published statistics should represent grouped or pooled data, and not expose the individual fisherman's operations.

E. Information, Education, and Extension Services

Recognizing the need for information, education, and extension services to support and ensure the future of the fishing industry in the United States, the following services are required:

1. Provide informational bulletins to fishermen, processors, retailers, and consumers. This should include simplified market news reports furnished free to the fishing industry, as they were prior to 1975. The Department of Agriculture provides bulletins and market information without charge to farmers, and fishermen should receive equal treatment (see also II.A.4.) (4A, B; 17A, B, C, D, E, F).
2. Education and extension programs presently provided by the National Marine Fisheries Service, Sea Grant Marine Advisory Services, Department of Agriculture Cooperative State Research Service, and other organizations should be encouraged and coordinated by the federal Agency responsible to the fishing industry. Additional programs as needed shall be designed and instituted by the Agency (4B; 18A, B, C).
3. Design training programs for fishermen entering the industry to meet regional needs. In addition to on-the-job training, programs should exist at the high school and community college levels in such supporting fields as welding, refrigeration, navigation, and hydraulics (see also II.G.) (19A, B, C, D, E, F).
4. Increase consumer education to promote the expansion of markets for fish and fish products and utilization of all types of seafood (see more detailed recommendations, II.A.3.; II.A.5.) (4A, B; 20A, B, C, D, E, F, G, H, I, J, K).
5. Disseminate results of economic analyses, including market research, which provide a basis for decisions throughout the fishery development process. Analyses should include evaluation of investment alternatives, establishment of fishery development priorities, and assessment of risks affecting investments made by the industry (4A, B; 21A, B, C, D, E, F).
6. Provide educational and technical services to assist fishermen with management of personal finances, record keeping, tax preparation, loan applications, and establishment of cooperatives. Also provide information concerning permits, licenses and grants. The present activities of the Sea Grant Marine Advisory Services should be encouraged and coordinated by the agency responsible for fisheries (see also II.B.1.; II.B.2.) (22A, B, C).
7. Gather and disseminate information concerning (see also II.H.):
 - a. Harvesting and gear technology (23A, B, C, D, E, F, G, H).

- b. Marketing on wholesale and retail levels (4A; 17F; 20A; 22B; 24A, B, C).
 - c. Processing.
 - d. Production costs (22B; 25A).
 - e. Quality control (26A, B, C).
 - f. Preparation of seafood products for consumer use (20A; 27A, B).
 - g. Other needs determined by survey and consultation of the fishing industry. The industry should share equally in the annual planning of services to meet information and extension needs (4B; 28A, B, C, D, E, F, G).
8. Provide aids and technical assistance to recreational fish resource users regarding establishment of access facilities, fishing maps, availability of species, methods of catch and care, and quality control of the catch. Understanding objectives and methods of both recreational and commercial fishermen will be promoted by effective exchange of information (see also II.C.; III.D.3.) 29A, B, C, D, E, F, G, H, I, J, K, L).
 9. Conduct workshops in appropriate areas designed to educate the public regarding the fishing rights of Indians (30).
 10. Conduct workshops and seminars to educate the public regarding habitat preservation (31).
 11. Establish a program of continuing education to ensure that the fishing industry is informed of recent management changes and technological advances.
 12. Informational and educational services of a technical nature shall be provided by a Technology Transfer Division within the federal Fishery Agency. This Technology Transfer Division will be charged to gather and synthesize information; prepare bulletins, seminars, film, and other informational aids; disseminate informational materials to potential users in the fishing industry and consuming public; and be responsive to needs of the fishing industry and consuming public. Sufficient funding should be provided to permit the delivery of these information, education, and extension services. Funds may be transferred to other agencies and organizations as necessary to accomplish this mission.

F. Funding

1. Management costs include but are not limited to the costs of operations, research, regulation, relevant environmental protection, and enforcement. A management system which will restore depleted stocks and maintain stocks at high yield levels will cost substantially more than the present management efforts, even with improved efficiency of operations. Adequate funding is essential to the success of management and thus to the ability of the federal and state governments to carry out their responsibilities for conserving and utilizing the fishery resources. Major increases in general funding will be required on the part of the Federal Government (see also III.C.) (32A, B).
2. According to *A Marine Fisheries Program for the Nation*, a recent estimate revealed that the commercial fishing industry's impact on the national economy is approximately \$6.5 billion, while the value of marine recreational fisheries is about \$2.7 billion. Some individuals estimate that the combined contribution of commercial and recreational fisheries to the economy is in excess of \$20 billion. Therefore, the major portion of funding for improved management should come from general tax revenues of the federal and state governments. Local or state funds should be obtained by licenses placed on users of the resources. These funds should be dedicated for use to support the fishery management programs of the local agency. All foreign fishing fees, licenses, and fines should be used solely for support of national fishery management programs.

G. Lamprey Control in the Great Lakes

Assure adequate funding on an annual basis for sea lamprey control to provide conditions suitable to maintain a desirable and productive species balance (33).

H. Gear Conflicts

Fishery resource user conflicts are caused by a basic behavioral instinct—aggressive self-assertion for complete territorial and/or tribal control—rather than mutual, beneficial cooperation and compromise. Each must recognize the other has a right to exist, if solutions are to be equated (34).

1. Gear and/or user conflicts, which may have adverse effects on fish stocks and/or which may cause social stresses among fishermen, should be given particular attention by Regional Fishery Management Councils (35A, B, C, D).
2. Successful management must anticipate user conflicts and must develop equitable dispute settlement mechanisms which require rigorous but fair enforcement. Penalties must be sufficiently stiff to discourage violations. This would include the possibility of removing harvesting privileges for chronic violators.

II. UTILIZATION AND DEVELOPMENT

A. Marketing

1. Establish through joint industry and government action national standards for size, grade, portion, and nomenclature of domestic and imported fishery products (26C; 36A, B, C, D, E, F, G, H).
2. Establish for each fishery through joint industry and government action good practices for harvesting, handling and processing fish and fish products with specified quality control and with mandatory inspection. All imports must meet these standards at the time of entry into the United States (26C; 37A, B, C).
3. Implement an expanded market development program encompassing promotion and advertising of domestic fish products, as well as consumer education, with joint industry/government participation and, if possible, funded jointly with a matching money scheme. Successful promotional programs utilized for other commodities such as dairy, poultry, and beef should be evaluated and perhaps adopted for domestic and export seafood markets (see also II.A.5.) (4A, B; 20A, B, C, D, E, F, G, H, I, J, K; 38).
4. Provide fishery market news reports to industry at no cost. Appropriate marketing and technical assistance should be provided for active commercial fisheries development. The Office of Management and Budget should reappraise guidelines that limit the above programs (4A, B; 17A, B, C, D, E, F).
5. Establish an educational program supported jointly by industry and government to teach retailers and merchandisers how to handle and display fish products. Retailers should be made aware of the proper methods to keep fish products at highest quality and should be taught imaginative marketing and display techniques. Such programs, if effective, would be very instrumental in increasing the demand for fish products. A need exists for applying such programs to large supermarkets where fish products historically have been poorly handled and displayed (20; 24C; 39A, B, C, D).
6. Formulate specific regional industry and government (jointly-developed) programs to develop domestic and export markets for fish species and products currently not fully utilized (11B; 38; 40A, B, C, D, E, F, G, H).

B. Financial Assistance

1. The Internal Revenue Service jointly with industry and the federal Fishery Agency should modify or develop tax guidelines for vessel and plant construction, modification and modernization for the respective fisheries and provide depreciation schedules having a similar time duration as financing schedules (22A; 41A, B).
2. The Internal Revenue Service, with assistance from the federal Fishery Agency and the fishing industry, should develop a revised handbook of procedures for consistent interpretation of tax laws and tax reporting for fish harvesting, processing, and aquaculture.
3. The Congress should extend the application of the Capital Construction Fund as embodied in the Merchant Marine Act of 1936, as amended, to include shoreline facilities directly related to harvesting, processing and marketing, including aquaculture, of fish products by citizens of the United States, as defined in the Act (42A, B, C).
4. The federal Fishery Agency should compile a manual describing government, Production Credit Association, and like credit sources that are applicable to the fishing industry. The manual should describe where such sources of credit can be obtained and should include necessary guidance and assistance for execution of loans (28A, E; 43A, B, C).

5. Underutilized fishery development should be encouraged through legislation establishing grants or long-term, low-cost loans for fishery development pilot programs (11B; 44A, B, C, D).
6. Development of commercial fisheries in the overseas territories and possessions of the United States should be supported and encouraged by exempting those areas from Jones Act requirements that fishing vessel hulls over five net tons must be of U.S. construction (45).
7. Fishermen emphasize that they do not want subsidies, merely an opportunity to compete in an equitable fashion.

C. Port and Harbor Development

1. A major constraint to the utilization and development of the resources within our Great Lakes, 200-mile economic zone, overseas trust territories, and commonwealths is the serious lack of adequate harbor and port facilities for both recreational and commercial fisheries. Inlet and channel maintenance is another major area of concern. The competition for waterfront property and dockage space is especially serious with offshore oil and gas development moving into many new areas. It is imperative that a compendium of all federal assistance programs which relate to public and private port and harbor facility development be assembled. The federal Fishery Agency or the Office of Coastal Zone Management should prepare this for distribution to those interested in public or private harbor development projects. An appendix to this document should include a step by step approach to funding, complete with abstracted procedures, forms, and information center addresses. This document should be made available also through the National Technical Information Service (see also III.D.3.; 28A; 29B; 46A, B, C, D, E, F, G, H).
2. Government should require that docking, unloading, handling and processing space needs of commercial and recreational fisheries are met whenever any port and harbor developments, modifications or improvements are federally funded or supported.

D. Tariffs

1. Reduce tariffs on imported nets and webbing by passing legislation similar to S. 3270 (Packwood bill), but amended to allow for a gradual reduction in the tariff rate. Tariffs should be reduced by 20% at 4-month intervals for a period of 16 months to allow for a reduction of high priced inventories already in domestic supplier hands and to allow for competitive production by U.S. manufacturers. Overall tariffs should be reduced by 80% and the 25% ad valorem tax should be eliminated. Domestic netting manufacturers would suffer little with such a reduction (47A, B, C, D).
2. Investigate the effect of imported fish products on the various domestic markets with special attention to:
 - a. Subsidies within foreign industries, both direct and indirect.
 - b. Relative costs of production.
 - c. Effect, negative and positive, of existing tariff structures (48A, B, C).

Results of investigations should be forwarded to all affected parties and a program of remedial action should be developed and implemented as soon as feasible to permit the domestic industry to compete on an equitable basis in the domestic market (28C; 49A, B, C).

3. Initiate an investigation, for the period 1968 to 1976, of international aid programs impacting fisheries that have been funded partly or wholly with U.S. capital through the international banking system (such as the Export-Import bank, Overseas Private Investment Corp., etc.). Other financial systems and instruments whose effect has been to develop, promote or maintain foreign fishery operations that result in aiding entry of foreign fish products into the U.S. market also should be investigated. Congress should ensure that a specific government agency or official be responsible for continuous monitoring of these programs in the future, and should advise the domestic fishing industry of any grant or loan application that might detrimentally affect any segment of the U.S. industry. If such is the case, funding should be curtailed (49C; 50A).

E. Insurance

Convene a technical committee consisting of industry representatives, legislative analysts, aca-

demarc insurance advisors, and labor law specialists to analyze insurance provisions of the Jones Act and Longshoremen's and Harborworkers' Act to determine if a need exists for legislative change. Because no ceilings are set on liability, private insurance carriers refuse to write adequate coverage. Consequently, many segments of the industry are in violation of federal law (45; 51A, B, C, D, E, F, G, H).

F. Safety

Safety aboard fishing vessels is not as serious a problem as is often thought. The accident rate in most fisheries is very low. Safety is primarily a function of equipment condition, working conditions, and operator awareness and knowledge.

1. It is recommended strongly that safety requirements be developed by industry and the Coast Guard, and implemented by the Coast Guard, not the Occupational Safety and Health Administration. Safety education relevant to fisheries should be an educational service of the federal Fishery Agency, Sea Grant, and trade associations. Maritime safety legislation may be required to put fishery safety jurisdiction under the Coast Guard (28B; 52A, B, C, D, E, F).
2. Occupational Safety and Health Administration regulations regarding shoreside operations should not apply to those with less than 10 employees (51A; 53).

G. Education and Training

Many federal dollars have been spent in training fishermen by some institutions, whereas the number of graduates remaining in the fisheries after receiving such education is in many cases extremely small. On-the-job training of fishermen is not only adequate, but superior to institutional training in many cases and should be supported. However, certain governmentally-funded training and educational activities have been helpful to the fishing industry. Fishermen note the success of topic-specific workshops conducted by Sea Grant institutions for working fishermen and urge continuation of such programs. Federal funding should be continued for the development of curricula in high schools, vocational schools and community colleges in such fields as marine welding, marine refrigeration, navigation, marine hydraulics and business management (19A, B, C, D, E, F).

H. Technology

It is generally believed that levels of technology used by harvesters, packers, processors and transporters of seafood are behind that of other segments of the domestic and foreign food-producing industries. Government sponsored R&D should be made more cost effective and should be developed jointly with industry. Information services and economic analyses are useful, but are inadequately funded through Sea Grant and the National Marine Fisheries Service and often are untimely or impractical. It is recommended that Congress direct the appropriate agencies to:

1. Make a joint compilation of existing or adaptable technologies, and;
2. Expand the dissemination of current and future information (4B; 17D; 23B, C, D, E, F, G, H; 28B, C; 54A, B, C, D).

I. Aquaculture (Marine and Fresh Water)

1. Designate a federal Agency with primary responsibility for coordination of all aquaculture programs of the federal government, including research, development, and regulation (4A, B; 5A, B; 55).
2. Create a permanent Advisory Council to provide input to the Director of the aquaculture Agency. This Advisory Council should be composed of representatives from private industry, cooperative extension services, state agencies, and universities. Members of the Advisory Council should be appointed by the Secretary of the Department to which the aquaculture Agency is assigned.
3. Provide long-term, low-interest loans with amortization flexibility for aquaculture (43B).
4. Create a federal protection and indemnity (P&I) insurance program to apply where no reasonable insurance is available to the aquaculture industry.
5. The Congress should establish "departmental aquaculture objectives: for the Department in which the aquaculture Agency is housed.
6. The Agency receiving major responsibility for aquaculture programs should provide the same

sort of support for aquaculture that farmers receive from the Department of Agriculture (4A, B; 56A, B, C, D, E).

J. *Processing*

Recognizing the importance of a viable seafood processing industry to the success of fisheries development in the United States, the following legislative actions are needed:

1. Simplify the overlapping and conflicting regulations and attendant paperwork by authorizing the federal Fishery Agency to coordinate all regulatory, permitting, inspection and enforcement functions which impact the seafood processing industry.
2. Adopt the definitive position that seafood processing wastes (solid and liquid) are unique in their relationship to the marine environment, and return of these materials to the marine environment can be beneficial under properly managed conditions. A conflict exists between the Marine Protection, Research and Sanctuaries Act of 1972 (P.L. 92-532) and the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) regarding the dumping of fish wastes, the latter resulting in needlessly stringent application of water quality standards to seafood processors in some coastal areas. The determination of permit conditions and evaluation of discharge or dumping plans for processing wastes should be coordinated by the Atlantic States, Gulf States, and Pacific Marine Fisheries Commissions together with the federal Fishery Agency and the respective responsible state agencies (5B; 12M; 57A, B).
3. If a state determines that a degree of treatment of processing wastes is needed to meet water quality standards that is more technically difficult and/or more expensive than the effluent limitation guidelines established by the federal government, the state shall be required to determine the economic impact of its treatment regulations on the industry, as has been required of the Environmental Protection Agency under P.L. 92-500. This economic impact report should include the impact of possible plant closures on plant owners, processing employees, fishermen, and their community.
4. Revise existing regulations and guidelines established by such agencies as Occupational Safety and Health Administration, Environmental Protection Agency and Food and Drug Administration to make them applicable to the fishing industry. Generally, the industry is composed of small entities which find it financially and technologically difficult to comply with such regulations. The agency responsible for fishery management should supply technical assistance and low-cost, long-range loans to reduce the detrimental economic impact of administrative regulations (5B; 52E; 58A, B, C).

K. *Commercial Designation of Commercial Passenger Fishing Vessels*

The commercial passenger fishing fleet should be defined as commercial fishing vessels in order that they may receive federal loan subsidies, loan guarantees, tax benefits, fuel allocations, and other benefits which the balance of the U.S. flag commercial fishing fleet receives (2B).

III. *MARINE RECREATIONAL FISHERIES*

The two most important activities ensuring conservation of marine fisheries, sport or commercial, are maintenance, restoration and enhancement of fish stocks on the one hand, and protection of habitats on the other. This conclusion recognizes that both vocations and avocations depend ultimately upon a healthy resource.

There is a need to improve and enhance marine recreational fishing opportunities. Further, greater recognition of the importance of marine recreational fisheries in terms of Regional Fishery Management Council activities, federal and state fishery programs, and allocation of fishery resources is needed.

A. *Recognition of Marine Recreational Fisheries*

1. The Congress should recognize, through appropriate legislation, that marine recreational fisheries are vitally important to the nation, contributing billions of pounds of fish to the nation's food supply, providing opportunity for more than 30 million people to enjoy healthy outdoor recreation, supporting an industry capitalized at 100's of millions of dollars, and generating about \$2.7 billion in primary economic benefits annually. Past actions by the Executive Branch have downgraded or ignored marine recreational fisheries in development of fishery programs. Congressional recognition would aid in securing adequate funding for marine recreational fishery programs; would support equitable allocation of fishery resources

to recreational fishermen under the optimum yield concept; and would give emphasis to the need for increased attention to recreational fisheries matters in federal fishery programs (29I; 59A, B, C, D).

2. Further, the Migratory Marine Game Fish Study Act should be amended to eliminate the ceiling on appropriation of funds for research on marine game fish. Appropriations should be made on the basis of need as justified by the Executive Branch.

B. Regional Fishery Management Councils and Marine Recreational Fisheries

The representation of marine recreational fishery interests (anglers, assorted owners or managers of the support facilities, and the tackle industry) on some Regional Fishery Management Councils is low in proportion to other interests. The selection process should assure equitable representation of marine recreational fishery interests on all Regional Fishery Management Councils.

C. Need for Increased Funding

Federal funding for marine recreational fishery programs is inadequate, and state funds are actually shrinking. In the face of increased needs of the fishing public and other resource users and demands on the resource, current programs are inadequate. Not only are additional federal funds essential for national and regional programs, but additionally, supplemental funding of state programs through increases in Dingell-Johnson Sport Fish Restoration Act appropriations should be authorized. Specifically, the income should be expanded by additions in items in the excise tax base and by amending the Act to direct that apportionment be based on the number of anglers as determined by qualified surveys in those states where a saltwater license is not required, rather than on the number of license holders alone. Those states having a state saltwater license should be allowed a premium of at least 2 to 1 over states electing to utilize a survey (29C, I, L; 59A, B, C, D; 60A, B).

D. Needs of Marine Recreational Fisheries

1. Restore, maintain, enhance, and assess fish stocks.

- a. Expand research to provide a common basis of knowledge and understanding of the biological, economic, and social aspects of marine recreational fisheries, with work in the following areas: stock assessment, including natural and fishing mortality, growth, and characteristics and value of the industry.
- b. Stock assessment and collection of data on recreational fish catch are prerequisite to any rational fishery management program. Yet federal programs and coordination of these activities, particularly regarding recreational fisheries are seriously inadequate. It is imperative that these programs be given top priority and developed cooperatively by the states and the federal government. Effective management is not possible without an adequate stock assessment and catch data collecting program (15B; 59B, C; 61A, B, C, D).

2. Improve coordination and communication among agencies, and between agencies and the public (62A, B, C).

3. Improve public access to the fisheries by:

- a. Aiding through long-term, low-interest loans the establishment of needed facilities such as launching ramps, marinas, and fish handling stations (where sport fishermen may process their catch, to include cleaning, garbage, and icing facilities) (28A; 29J, K; 46A, B, C, D, E, F, G, H; 63A, B).
- b. Providing navigational and communications networks needed by recreational fishermen (64A, B, C, D).

E. Restoration, Maintenance, Enhancement and Assessment of Fish Habitat

All fishery resources are dependent upon a viable, healthy, environment. It is essential that steps be taken to reverse the downward trends in quantity and quality of fish habitats by eliminating the losses and degradation of these habitats or restoring and enhancing them where feasible. Efforts should include restoration of water quality as called for under the Clean Water Act as amended, control of dredge and fill activity in the marine and estuarine areas, restriction of ocean dumping in environmentally sensitive areas and control of practice military bombardment. Further, there is a distinct need for the implementation of state and federal laws for the establishment of marine sanctuaries (5B; 12A, B, C, D, E, F, G, H, I, J, K, L, M).

ADDITIONAL RECOMMENDATIONS FROM THE REGIONAL REPORTS

During the four days of the National Conference, the three panels addressed most of the issues of national importance. A few significant issues, however, were either not considered or not fully covered at the National Conference due to time constraints. Also, the regional reports identified certain critical areas on a regional basis, some of which were of concern to more than one region, which were not dealt with at the National Conference. To assure completeness of this report to the Congress, the editors of the regional summaries have developed the following list of additional recommendations from such issues in the regional reports, which were not specifically included in the recommendations of the National Conference.

I. DISTANT-WATER TUNA FISHERIES

- A. Congress should recognize the importance of establishing or maintaining international organizations to manage tuna populations effectively in the Atlantic and Pacific Oceans. Because tunas are highly migratory species which are transboundary in distribution and harvested by many countries, and because tunas specifically are excluded from U.S. management authority, effective mechanisms for management at the international level are required to conserve the stocks. The jurisdiction of these organizations should be expanded to encompass the entire range of the species in question, or new organizations should be created which would have management jurisdiction over these additional areas (65).
- B. Congress should assist the Department of State and the U.S. tuna industry in negotiating policies with foreign nations to permit U.S. access to traditional tuna fishing areas. Passage of the Fishery Conservation and Management Act of 1976 (P.L. 94-265) may affect adversely the ability of our tuna fishermen to obtain access by endorsing similar extensions of jurisdiction by countries adjacent to tuna fishing areas. Such actions become especially restrictive if the countries in question do not recognize the right of traditional fishing nations to continue fishing in these areas (66).

II. NAVIGATIONAL AIDS

- A. The period of transition from the LORAN A navigational system to the LORAN C system should be extended to five years from the date on which LORAN C is instigated. Also, nautical charts should be provided with both LORAN A and C bearings printed on the same side. Fishermen are concerned that a rapid phase-out of traditional navigational equipment, accompanied by the necessity to purchase new equipment, will be unduly burdensome financially as well as technically. Sufficient time is needed to allow them to adjust to the new system (67A, B, C, D).
- B. Congress should ensure that the Coast Guard receives adequate funding to allow use of modern electronic equipment, compatible with that used by the fishing industry, so that they can detect and locate distressed vessels effectively (68A, B, C).

III. MARINE WEATHER FORECASTING

Congress should ensure adequate funding to improve National Weather Service programs. Because marine weather forecasting is so important to recreational and commercial fishermen and other mariners, it is vital that the frequency of forecasts is increased and that their accuracy and timeliness are improved. Additionally, the capability to provide long-range forecasts should be enhanced. The use of more offshore buoys as well as greater utilization of vessels at sea for monitoring and reporting purposes are recommended (69A, B, C, D).

IV. MANAGEMENT OF MARINE MAMMALS

Congress should amend the Marine Mammal Protection Act of 1972 to allow rational management of marine mammal population. The provisions of the Act prevent man-caused mortality and in some cases encourage overpopulation of seals, sea lions and sea otters with resultant deleterious local effects on prey species. Some of these are important commercial and recreational fish and shellfish species (70A, B, C).

V. REGULATION OF VESSEL CONSTRUCTION

Shipbuilding standards should be established, to prevent design and construction of unsafe vessels. In the past, tests of new or reconstructed vessels under a variety of load and weather conditions have been inadequate or nonexistent. Federal documentation of vessels should be warranted only after they pass adequate stability and loading trials (71A, B).

VI. FOREIGN INVESTMENT IN DOMESTIC FISHERIES

Congress should encourage, through tax incentives, investments of capital in American shore-based plants which process fish caught by American fishermen. Foreign investment should be limited to shoreside facilities utilizing domestic labor and serving domestic markets wherever possible. Further, agreements whereby domestic fishermen sell their catch to foreign operations at sea, who in turn deliver their product to U.S. markets, should be carefully reviewed and analyzed (72A, B, C).

VII. RESOURCE ALLOCATION INCLUDING EFFORT LIMITATION

Congress should be acutely aware that allocation of fishery resources, particularly salmon, is of utmost concern to the fishing industry. Northwest court decisions reserving fifty percent of the harvestable salmon and steelhead to treaty Indians has compounded allocation decisions. Effort limitation is one alternative management tool to help resolve allocation problems, but participants were not united in their support of limited entry and stressed that application of effort management techniques should be studied thoroughly and evaluated with direct input from the fishing industry prior to implementation. It was agreed generally that any consideration of effort limitation should be on a fishery by fishery basis, with recognition that effort management in one fishery may have substantial impact on another (73A, B, C, D, E).

VIII. NON-EXTRACTIVE USES OF THE RESOURCES

Congress should recognize the increasing importance of non-consumptive uses of aquatic resources such as observation and study, and ensure that this activity is given fair consideration in resource management decisions (74A, B).

IX. POLICY RECOMMENDATIONS CONCERNING U.S. ISLAND TERRITORIES

(Note: Certain of these recommendations were included in the National Conference deliberations and final report. However, since the total array of recommendations have special significance for U.S. relations to these Island Territories, this section offers a comprehensive summary (cf. Pacific: 132-157 for full report).

A. U.S. Government Impact on Island Territories

The United States should consolidate and coordinate federal agency functions toward the object of enhanced conservation and development of fishery resources (75).

B. Impact of Federal Laws on Island Fisheries Development

Federal laws which impinge significantly upon fisheries conservation and development in the U.S. Island Territories should take into account their special characteristics and problems, including geographic remoteness from the U.S. mainland, the generally undeveloped and dependent nature of their economies, and the need to stimulate in every way possible their economic and social self-sufficiency. To that end, applicable federal legislation should actively consider special provisions to assist conservation and development of island fishery resources (76).

C. Conservation of Island Reef and Shoreline Resources

Federal support for fishery conservation and development in the Pacific islands should accord high priority to procedures necessary to protect and enhance the reefs and shoreline environments which provide a major share of the subsistence needs of island residents; further, any plans for development of island resources should receive support only if they take into full account and provide maximum protection for the nearshore and reef ecosystem and the subsistence needs of the people (77).

D. Development of Commercial Fisheries

It should be the policy of the United States to assist the Island Territories to develop commercial fisheries through programs which are sequentially planned and vertically integrated to include conservation of stocks and habitats, and harvest, processing, storage, and marketing of the catch. Program development shall take into full account the special characteristics of the living resources to be utilized and the social and economic considerations which will condition local participation of the fishery. Toward a primary goal of increased economic self-sufficiency for the Territories, the United States should provide scientific, technical, and economic advice, and also direct assistance to improve the harvesting, processing, storage and transportation infrastructure requisite to successful commercial fisheries operations (78).

E. Development of Recreational Fisheries

In the interest of generating additional local income from fishery resources, and to provide recreational benefits to visitors to the Island Territories, it should be the policy of the United States to encourage growth of recreational fisheries in those Territories, and development of charter boat and other services required to serve those fisheries (80).

X. ABATEMENT AND CONTROL OF POLLUTION

Stronger action should be taken to assure compliance with abatement and control of pollution that contaminates fish or that has an adverse influence on fish habitat, including the prevention of the development of new environmental degradation or fish contamination (81).

XI. REGULATION OF WATER LEVELS IN THE GREAT LAKES

Fluctuations in water levels in the Great Lakes should be controlled to minimize damage to fish habitat, docks, boat houses, boats and related facilities (81).

XII. WITHHOLDING TAXES

The IRS regulation which requires boatowners to withhold taxes for crew members should be changed. The crew members should be considered as free agents and the boatowners' responsibility should be limited to providing IRS with names, social security numbers, and mailing addresses of crew members for each trip and an annual summary of revenue earned per trip (82).

XIII. DUTIES ON FOREIGN FISHERY PRODUCTS

Congress should provide the mechanism by which duties could be imposed on foreign fishery products which drastically depress domestic prices for domestic landings and production of these products. Such a system should be flexible and allow for reduced duties during periods of domestic shortages (83).

XIV. BOAT MORTGAGES

Congress should enact legislation which would guarantee boat mortgages over a period consistent with the expected life of the fishing vessel similar to the FHA loan program (84).

XV. DISASTER LOANS

A federal program for disaster loans should be instituted similar to those provided for agriculture. Such a program should be initiated after federal review of a request by the states or industry which is hurt by natural resource disasters, pollution, or economic conditions caused by foreign competition at the marketplace. Provisions for unemployment compensation should be provided for fishermen unemployed as a result of natural disasters and pollution (85).

XVI. INSURANCE

The Jones Act should be amended to allow liability coverage only for crew members when actually aboard or unloading a vessel. Boat owners, their associations and insurance companies should have the option to file countersuits against plaintiffs and their lawyers for claims which were unproven or fabricated (86A, B).

XVII. PUBLIC HEALTH BENEFITS FOR FISHERMEN

The public health benefits extended to crews of registered vessels are discriminatory. Such benefits should be extended to crews of all vessels which operate and are licensed as commercial fishing vessels (87).

XVIII. ILLEGAL SALES OF FISH CATCH

Congress should act to amend the maritime laws to prohibit the sale of a fisheries cargo without written permission or other legal authorization by the vessel owner. The purchaser of such products and the vessel's captain and crew should be subject to stiff civil penalties for such illegal transactions (88).

XIX. SEA GRANT PROGRAM

The major emphasis of the Sea Grant Program should be directed toward solving the problems related to production of food from the sea. Purportedly, the Sea Grant Program was patterned after the Land Grant Program which initially directed its programs toward research and development to produce food from agricultural lands. The Sea Grant Program at its inception is attempting to provide research and development in eighty-two various fields of coastal activities. The Sea Grant Program would serve that national interest better by directing a major portion of its program to production of food from the sea and those areas of activities related to this production. The expertise housed in the university systems is needed to solve many of the problems facing the commercial and recreational fishing industries. If, for instance, the expertise of the food technologists of the universities was used to solve the new product development problems faced by the seafood industry, rapid progress would be achieved in this area (89).

XX. EFFLUENT DISCHARGES

Rather than developing "blanket" classifications for regulating effluent discharges, EPA should examine the effluent discharge on a case by case basis and evaluate them singularly and accumulatively as to their effects on the ecosystem (90).

XXI. NAVIGATION AND OBSTRUCTIONS

The Corps of Engineers and states should be required to cease allowing openwater spoil disposal in areas utilized by trawl fisheries if the operation will materially alter the bottom configuration.

The Corps of Engineers should be directed to permanently mark or buoy or else remove all wrecks which interfere with trawling or fishing operations. The cost of permanently marking should be contrasted against the cost of removal. Those which may be permanently marked should remain as fishing reefs for recreational fishing.

In areas where trawls and other similar nets are fished, the U.S. Coast Guard buoying requirements for state or private fishing reefs should require lighted, permanent buoys. The Corps of Engineers which grants permits for the reefs should require these restrictions in their permits. In areas where trawling does not occur or is extremely rare, the buoying requirements should be minimal or eliminated so long as the reef does not constitute a threat to surface vessels.

Since the Corps of Engineers permits offshore oil and gas platforms, their permit should contain restrictions on dumping debris (pipes, steel, etc.) from these platforms and they should supervise removal of the platforms and associated debris. They should also control the practice of connecting platforms with catwalks so that these catwalks do not materially restrict navigation (91).

XXII. FUEL ALLOCATIONS

Should fuel allocations be reinstated, the Federal Government should provide more flexible controls for the fishing fleets. Boats should be issued allocation coupons which could be provided to fuel dealers in any port. The dealers could then submit the coupons to attain their allocation. Since fisheries is a basic food producer, special increased allocations should be allowed for our domestic fleet (92).

XXIII. SAFETY

OSHA rules and regulations should be revised to accommodate each separate class of industry shop. In formulating these rules OSHA officials should use advisory panels from that particular industry. For example, advisers from the menhaden industry should help draft the regulations necessary to insure employee safety and health within their particular type of operation. An operations manual for each class of industry shop should be prepared rather than issuing the present voluminous and often ridiculous set of regulations which attempt to apply to all industries and types of operations (93).

XXIV. HIGHWAY USE TAXES

Fishermen who haul their own products to market should be exempt from the Federal Highway Use Tax, or should be taxed at a lower rate than other common carriers, since the irregular and seasonal nature of fish production restricts their full-time use of the highways (94).

XXV. MARKET RESTRICTIONS

Alleged price-fixing and other market restraints by the major domestic market centers should be investigated by the Department of Justice (95).

DOCUMENTATION OF RECOMMENDATIONS

Most of the National Conference Recommendations and the Additional Recommendations from the Regional Reports are based on earlier recommendations or statements of need developed from the regional surveys. The following references provide in abstracted form documentation of the recommendations from the regional reports.

Regional reports are referenced by the following designations:

ATLANTIC designates the *Eastland Fisheries Survey of the Atlantic Coast Region*, Atlantic States Marine Fisheries Commission, Washington, D.C., June 1977.

GREAT LAKES designates the *Eastland Fisheries Survey of the Great Lakes*, W. Mason Lawrence, Natural Resources Management, October 1976. 21p.

GULF (GSRI) designates *The Fisheries Industry in the Gulf Region*, Gulf South Research Institute, Baton Rouge, LA, October 1976. 263p.

GULF (Summary) designates the summary document *Proposed Solutions to Problems Affecting: The Fisheries Industry of the Gulf Region*, Gulf States Marine Fisheries Commission, New Orleans, LA, November 1976. 19p.

NATIONAL PLAN designates "The National Plan for Marine Fisheries," an appendix to *A Marine Fisheries Program for the Nation*, U.S. Department of Commerce, Washington, D.C., July 1976. 74p.

NATIONAL PROGRAM designates *A Marine Fisheries Program for the Nation*, U.S. Department of Commerce, Washington, D.C., July 1976. 13p.

PACIFIC designates the *Summary of Pacific Area Input to the Eastland Fisheries Survey*, Pacific Marine Fisheries Commission, Portland, Oregon, March 1977, 107p.

1. GULF (SUMMARY) p. 4, *Authority (partial quote used as recommendation in the Summary and Recommendations of the National Conference)*
2. A. PACIFIC: p. 36, *Research and Development (Aquaculture)*
... it would be most beneficial if Sea Grant colleges could provide the same sort of consultative services and assistance to the aquaculture industry that the Land Grant schools have to agriculture ...
Specific research programs on the following aspects of aquaculture should be emphasized: genetics, nutrition, larval development, stock improvement, pathology, and economic and legal aspects. ...
B. PACIFIC: p. 60, *Identity of Charter Industry (Charter)*
Participants emphasized the need to be identified as a bonafide commercial enterprise producing fish for human consumption and recognized as such to obtain the benefits such as fuel allocation and financial assistance that commercial fishermen receive
C. PACIFIC: p. 82, *Vessel Financing and Insurance (Hawaii)*
.. The fishing industry should receive subsidies like the agriculture industry, since money is available for this purpose.
D. PACIFIC: p. 93, *Policy Statement (Island Territories)*
It shall be the policy of the United States to assist to the fullest possible extent the conservation, management, and productive development of the fisheries resources of the Island Territories toward the goal of maximum economic and social benefit to the people of those Territories; toward that object, the several federal departments having significant impact on fisheries development in those Territories are directed to coordinate and consolidate their relevant impacts, services, and functions.
3. A. PACIFIC: p.50, *Cooperative State/Federal Management with Effective Constituency Input (Salmon)*
... The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should merge to economize, minimize duplication of programs, and coordinate management efforts.
4. A. ATLANTIC: Recommendation #15
Agricultural authorizations should be expanded to include aquatic products.

Although technology relating to the harvest of seafood is available, there is little information relating to the marketing and distribution of seafood products. It is suggested that by inclusion of the definition of aquatic products under the general term agriculture in the various agricultural acts, those responsible for the marketing and distribution of seafood products could receive technological information through the marketing and informational services of the Department of Agriculture. Such services would augment those currently performed by the National Marine Fisheries Service.

B. ATLANTIC: Recommendation #22

Programs of fishery utilization and development should be removed from the Department of Commerce and placed in an agency created for that purpose within the Department of Agriculture.

It was recommended by all sectors of the industry that they be considered as farmers of the sea. It was maintained that if commercial fisheries were established by the Department of Agriculture all sectors of the industry involved would have access to information, assistance, and other services which are now available to agricultural food producers. It was stated that "aquabusiness" or "maribusiness" should be treated on a par with "agribusiness." It was argued that development of the United States fishing industry has been retarded by the present government structure which has neglected the fishing industry.

5. A. PACIFIC: p.38, *Government Regulations (Aquaculture)*

A major problem affecting the operation of aquaculture ventures is the large number of agencies responsible for administering agriculture regulations. As a result of acute land-use problems, resource management problems, and increasing pollution of the aquatic environment, many public agencies require a permit to begin an aquaculture project. The excessive number of agencies and their respective regulations effectively limit the ability of aquaculture ventures to produce food and also discourage the development of new aquaculture development enterprises. A federal program is needed to assist commercial ventures through the maze of government agency requirements and restrictions. There also is a need to alleviate conflicting and/or arbitrary requirements at the federal, state, and local levels.

B. ATLANTIC: Recommendation #12

Streamline the enforcement and regulatory functions by agencies which have authority over activities relating to fish production.

Involvement by the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the U.S. Corps of Engineers, state environmental protection agencies, natural resources agencies, state public works agencies, and county health agencies have created a confusing array of overlapping and conflicting regulations. Consequently, the effectiveness of those regulatory agencies is reduced. The situation could be corrected by federal reorganization and the creation of one management regulatory body within the responsible department. Similar reorganization could be accomplished at the state level.

6. A. GREAT LAKES: p.9, *Recommendation #2*

(Exact language used as recommendation in the Summary and Recommendations of the National Conference.)

Further quote:

This is obviously a long-range goal which cannot be accomplished by a few actions or within a short time. However, steps should be taken promptly on the basis of current information and within existing institutional capabilities to develop management plans, while concurrent efforts are being made to obtain better information and more effective institutional arrangements.

B. GULF (SUMMARY): p.6, *Resource Allocation*

Recreational and commercial catch data must be obtained for specific water areas simultaneously. NMFS must make additional funds available for work dealing with recreational fisheries and greatly expand their commercial fisheries statistics program. Requests for strengthening the statistics programs of NMFS have been made for years but at the same time NMFS showed

indications of reducing their role in the program and turning it over to the states which do not have funds or personnel for the program.

Studies should be conducted by state and federal agencies on species subject to local controversies between recreational and commercial fishermen.

C. GULF (SUMMARY): p.6, *Size Restrictions*

Here information is needed on the proper or optimum size at harvest for shrimp and other species. The shrimp resource assessment study drafted by Gulf States Marine Fisheries Commission and NMFS should be fully implemented as soon as possible.

D. GULF (SUMMARY): p.6-7, *Research Needs*

NMFS will have to direct a considerable amount of research funds into the FCZ. Since the 1960's very little federal research has been done in the Gulf of Mexico. Fishery research by NMFS seems now directed towards foreign fisheries such as off Brazil and elsewhere. Vessel-time charged by NOS is so high that off-shore research is fast approaching a point where it is prohibitive at a time when it is needed most. More research is needed in inside waters but the greatest gap is in the FCZ. Decisions on allocation and other aspects of fishery resources will have to be made by the Regional Councils based on an incomplete data base. Emphasis should be directed initially towards shrimp, sciaenids and menhaden as these are major fisheries of the Gulf.

NMFS should also develop a comprehensive research program for offshore pelagic and demersal species of recreational importance in the Gulf. Information on life history, migrations, stock size, harvest, etc., are needed.

NMFS should seriously consider obtaining vessels needed for research through contracts with states and individuals since the use of NOS vessels is almost cost prohibitive. Vessels of the class used in the fishery would be ideal for such research particularly as the expertise of the captain could be utilized in sampling the populations.

E. GULF (SUMMARY): p.7, *Statistics Needs*

Commercial statistics need to be greatly expanded to provide catch/effort, size, and other data presently available only for shrimp. Recreational fishery statistics are almost nonexistent and available data are mostly questionable. The need for statistics has been adequately discussed.

F. PACIFIC: p.46, *Restore, Maintain, and Enhance Fisheries Habitats and Stocks (Salmon)*

Restoration, protection, and enhancement of stocks and habitats are the most important activities requiring federal attention . . . If adequate funds are appropriated for these activities, resulting in increased production of salmon, the problems of allocating the resource among user groups will be reduced considerably.

Salmon and steelhead stocks and habitats should be restored, maintained, and enhanced throughout the range of the populations. Various factors must be considered when decisions are made concerning priority use of funds for these purposes, e.g., the condition of a particular run (depleted, near extinction, etc.) and the cost effectiveness of a particular project.

G. PACIFIC: p.60, *Fisheries Management (Charter)*

Participants are in favor of regulations which require fish to be managed in an acceptable way; that is, management decisions should be based on biological, economic, and social factors. Decisions should not be made by arbitrary means without the use of factual data.

7. A. GREAT LAKES: p.12, *Recommendation #5*

. . . At present Great Lakes fisheries are subject to a large number of regulations with a considerable degree of inconsistency among them. Many of these regulations were originally adopted in an attempt to resolve a local problem or in response to a special interest. Such regulations are frequently of no value in promoting sound management of the fisheries . . .

. . . All State and Federal agencies exercising regulatory authority affecting the fisheries of the Great Lakes should give increased attention to avoiding inconsistent and overlapping regulations, to the encouragement of uniformity in regulation insofar as is practical, and to keeping regulations to the minimum needed to carry out their programs.

B. GULF (SUMMARY): p.14, Licenses

The states, through the Gulf States Marine Fisheries Commission, should work out reciprocal agreements on licensing for all fisheries which are multistate. For a higher fee the fishermen should be allowed to purchase a license which would entitle them to fish two or more states. The fee could be graduated to depend on the number of states for which the license was issued with the issuing state transferring a portion of the fee to each state covered by the license.

All commercial license fees should be raised significantly to prevent competition with the commercial harvester by "weekenders" and other part-time fishermen. A recreational saltwater license should be available to allow all citizens to share in the harvest of the resource. Limitations should be placed on the catch of recreational fishermen as well as to prohibit the sale of their catch. All such licenses should be issued and regulated by the states.

C. GULF (SUMMARY): p.16, Regulations

The states should attempt to standardize their fishing regulations with those developed by the Regional Fisheries Management Council mandated by P.L. 94-265 for species ranging over a multistate area.

8. A. GREAT LAKES: p.15, Recommendation #13

... Court decisions have increased the legal basis for tribal fishing until, at present, Indian rights in many areas supercede the authority of the State to regulate the fishery resources. The result is divided authority to manage a fishery, which may already be divided among two or more states and, in addition, in some situations with the Province of Ontario. The divided authority is particularly critical in relation to the perpetuation of stocks of valuable species which can be easily overfished.

The United States Congress should consider the various Indian treaties with the intent of creating, where needed, appropriate institutional arrangements and authority to conserve the fisheries resources of the Great Lakes while protecting those rights reserved to the Indians.

B. PACIFIC: p.49, Allocation of the Resource Including Effort Limitation (Salmon)

At all Pacific area Eastland Fisheries Survey hearings, groups of users competing for the diminishing salmon resources available have emphasized their special claims upon a significant share of the resource. These special interest arguments include insistence by Indian tribal spokesmen that U.S. treaty commitments to special fishing rights for Indians be fully honored. . .

C. PACIFIC: p.81, Fisheries Management (Hawaii)

... Native Hawaiians emphasize their claim to traditional fishing rights in the Leeward Islands and oppose any federal control or ownership of this area. The problem of jurisdiction over ocean resources has not been settled: Congressional resolutions H.R. 1944 and S.J. Res. 155 regarding the Annexation Treaty of 1897 (Section 2) state that Congress will enact special laws for Hawaii dealing with native rights, and these laws have not yet been passed. It is recommended that the resources be protected until these rights have been settled.

9. PACIFIC: p.51, Compliance with National Standards (Salmon)

Participants specifically support the concept of optimum yield as established by the Fisheries Conservation and Management Act of 1976. This concept is more realistic than maximum sustainable yield, because it includes the economic, social, and ecological factors which necessarily must be considered in any fisheries management scheme.

10. A. PACIFIC: p.51, Cooperative State/Federal Management with Effective Constituency Input (Salmon)

Participants emphasized the need for user group input, especially regarding food fish stocks. Increased communication between the user groups and the agencies could restore confidence in agencies having jurisdiction. All common user groups (users of salmon stocks) should unite to provide advice to the Regional Fishery Management Councils on rules (probably via the Advisory panels mandated in the legislation). Additionally, user groups must be able to provide significant input into the selection of future members of the Regional Fishery Management Councils.

B. PACIFIC: p.60, Fisheries Management (Charter)

A charter boat representative should be appointed to the Regional Fishery Management Council. If this cannot be accomplished, an individual who could adequately represent the whole array of fisheries interests would be desirable, but not preferable to a direct representative of charter boat interests. Councils should distribute publications on proposed regulations so that the industry could provide input before adoption, enabling the charter industry to become an action instead of a reaction group. In addition, one individual stated that the states should coordinate effective management plans before the Secretary of Commerce intervenes to enact federal regulations.

C. PACIFIC: p.67, Cooperative State/Federal Management with Effective Constituency Input (Trawl)

Research and management efforts should be coordinated by the Regional Fishery Management Councils to prevent duplication of effort, and the Councils should make good use of NMFS and state agency technical personnel who are experienced in these matters. Agencies must work cooperatively with the industry on research programs and such programs should be conducted using adequate gear and methods.

Provisions should be made by the Regional Fishery Management Councils to prepare for situations in which emergency regulations are required in local areas, and this emergency power should be delegated to local officials and members of industry who are knowledgeable about the local fishery and have the abilities to act quickly when necessary. It is again urged that a new bureaucracy not be created with the establishment of the Regional Councils, and that the necessary personnel be obtained from existing state, federal, and industry resources. If effective involvement of industry and coordination of state, federal, and industry efforts are achieved, a vehicle and mode may well appear which will allow the issuance of effective emergency regulations in local areas. Fishermen strongly urge that all cooperative state, federal, and industry management programs be localized in the area of operation of the fishery.

11. A. PACIFIC: p.66, Harvest Rights and Access (Trawl)

The provision in P.L. 94-265 which gives domestic fishermen a significant share of the catch of a previously unutilized species as long as they demonstrate a capacity and desire to harvest that species is strongly supported . . .

B. ATLANTIC: Recommendation #25

A comprehensive financial assistance program should be developed to encourage exploitation of underutilized species.

Congress should enact legislation to provide financial assistance in the form of grants or long term loans to fishermen who will exploit underutilized species. Fishermen should be encouraged, through the availability of such funds, to re-rig their vessels for harvesting underutilized species. Funds should also be used to aid the production and marketing of underutilized species.

12. A. GREAT LAKES: p.10, Recommendation #3

Stronger action to assure compliance with abatement and control of pollution that contaminates fish or that has an adverse influence on the fishery environment, including the prevention of the development of new environmental degradation or fishery contamination.

Pollution has contributed significantly to the decline and financial problems of the commercial fishing industry due to the contamination of food fish which has caused a ban on their sale for human consumption. The contamination of fish with toxic chemicals has also reduced the attractiveness of recreational fishing resulting in adverse effects on communities in which the recreational fishing industry is an important part of their economy and has resulted in the waste of large amounts of fish caught by recreational anglers . . .

Although there may be problems of cost efficiency in some situations, the technology and capability to control existing pollution and to prevent new forms of pollution exist. The accomplishment of these goals, which is essential to the maintenance of healthy and productive fisheries in the Great Lakes, requires that existing programs for identification of the sources, control of pollution and monitoring of toxic materials be greatly intensified.

Specifically, the provision of federal funds for construction grant programs should be accelerated to permit the completion on schedule of already designed pollution control facilities. In 1976 Federal Toxic Substances Control Act should be promptly and effectively implemented to prevent recurrences of PCB and Mirex types of contamination.

B. GULF (SUMMARY): p.9, *Pollution*

The FDA should engage in a greatly expanded research effort to develop better bacteriological standards for shellfish growing waters. These standards should utilize disease organisms rather than 'so called' indicator groups.

The FDA should also critically and scientifically examine the possibility of allowing shellfish harvested from closed waters to be used for thermally processed products.

The shellfish sanitation branch of FDA has been a long neglected "step-child" of the agency in regard to funding allocations and thereby has been almost negligent in performing the research needed to develop meaningful shellfish standards. Either this group should be adequately funded or transferred to NMFS.

C. GULF (SUMMARY): p.9, *Ocean Dumping*

The EPA should immediately prohibit ocean dumping of any materials which contain toxic substances which may be incorporated into the food web. They should also confine ocean dumping of materials of a non-toxic nature to waters beyond the 100 fathom curve. They should also monitor this permitted dumping to insure that the material is actually dumped at the permit site. The cost of a federal inspector on board could be made part of the permit and assessed against the corporation requesting the permit. All ocean dumping except controlled dumping of dredge spoil should be terminated by 1983.

D. GULF (SUMMARY): p.10, *Domestic Pollution*

All domestic waste water containing human sewage should be thoroughly treated to kill disease organisms before it is discharged. This should be mandatory within three years for all discharges which may affect shellfish growing areas as determined by sanitary surveys.

The chemical nutrients, N, P and K, contained in domestic waste are valuable to the production of phytoplankton in the estuarine systems and the discharge of treated wastes containing the nutrients should not be completely eliminated; however, they should be controlled to prevent over-enrichment in areas where the dilution is not adequate to accommodate the nutrients without eutrophication.

E. PACIFIC: p.21, *Restore, Maintain, and Enhance Fisheries Habitats and Stocks (Pot)*

... Fishermen support protection of the environment from oil development, logging, industrial pollution and dredging. There was particular concern expressed over the proposed oil development of the Outer Continental Shelf. All concerned federal agencies should coordinate their activities and recognize the value of fisheries habitats before making decisions regarding oil development.

F. PACIFIC: p.29, *Restore, Maintain, and Enhance Fisheries Habitats Stocks (Market)*

... Reserves or sanctuaries be established in nursery areas such as estuaries and kelp beds ...

G. PACIFIC: p.42-43, *Restore, Maintain, and Enhance Fisheries Habitats and Stocks (Recreational)*

Federal dollars are needed for restoration and protection of marine fish habitats, especially lagoons and estuaries which are critical to fish production. Marine development should be adequately controlled, since this activity is responsible for some of the pollution problems in these areas. Federal Government funding should be combined for community efforts to update antiquated sewage systems. The application of modern technology to treatment of sewage has reversed the devastating effect of untreated sewage discharge in the marine environment. Efforts to restore and enhance fisheries habitats and stocks will be wasted if regulations restricting ocean dumping (especially toxic chemicals and sludge materials) are not enacted immediately. Pollution control is one of the most important areas for government action at this time.

Federal funds should be allocated for the establishment of refuges and parks in the coastal marine environment. A system of marine parks is necessary to the survival of many marine

organisms, since heavy use of the resource in particular areas has caused depletion. Programs are also needed to increase public awareness of the need for marine parks and refuges. Without adequate funding, areas presently set aside cannot be properly managed. All projects that serve to give more insight into the complex relationships in the marine environment should be federally supported. Examples of such projects are kelp restoration, artificial reefs, and mariculture.

Environmentalists stress that harvesting of ocean resources should be effected in a manner that will preserve the energy flow, nutrient cycles, and complex food webs of the marine environment. Preservation and enhancement of the marine environment are directly related to marine fishery management. Fish have an intrinsic value to our environment, in that the ecological role of fish species in maintaining life in the oceans is a critical one. Environmentalists suggest that the new concept of critical habitat, embodied in the Endangered Species Act of 1973, be applied to fishery habitats. Habitats critical for the continued survival of endangered fish species should be identified through research and protected from destructive projects. The Federal Government is requested to encourage local government agencies (e.g., land use planning commissions) to help in the protection of fish habitats, especially estuaries, where access is locally controlled.

The Federal Government should increase funding of research and management of marine organisms to ensure survival of these organisms. Specifically, the unregulated use of gillnets should be controlled to restore stocks which have been depleted. Uncontrolled gillnetting in reef areas is blamed for depletion of the rockfish resource in California. Participants also expressed concern over the excessive commercial harvest of undersized lobsters (shorts) in California. Present California law prohibits the harvest and sale of shorts. Other states have not passed regulations which would restrict sales resulting in interstate shipment of illegally harvested lobster. The Federal Government is requested to intervene in order to curb this harvest and subsequent shipment.

Opposition is expressed to Executive Department control over monies appropriated by Congress for specific programs. The Office of Management and Budget may choose not to fund a particular project, regardless of the intent of the original Congressional appropriation, according to participants. This conflict of interest between federal branches of government must be resolved before resource management can be effective.

Since federal projects benefit the public, it is the public, through federal taxes, who should pay for the restoration of any resource damaged by a federal project.

H. PACIFIC: p.46-47, Restore, Maintain and Enhance Fisheries Habitats and Stocks (Salmon)

Restoration, protection, and enhancement of stocks and habitats are the most important activities requiring federal attention. All other items which need support must be considered subordinate to these very critical needs. Other activities such as weather forecasting and marine mammal management deserve some immediate attention, but only as second-level considerations to protection and enhancement of stocks and habitats. If adequate funds are appropriated for these activities, resulting in increased production of salmon, the problems of allocating the resource among user groups will be reduced considerably.

Salmon and steelhead stocks and habitats should be restored, maintained, and enhanced throughout the range of the populations. Various factors must be considered when decisions are made concerning priority use of funds for these purposes, e.g., the condition of a particular run (depleted, near extinction, etc.) and the cost effectiveness of a particular project.

It is vital that the entire freshwater and marine environments be maintained at the highest possible level to assure maximum production and survival of marine life. Of principal concern are adequate food supplies, particularly forage fish species, and the control of such adverse practices as pollution and degradation of the fish environment.

Anadromous fish stocks should be considered a beneficial use of water and must be included in any federal water use planning. The Federal Government should be responsible, within technological limits, for preserving, restoring, and enhancing habitat and stocks of anadromous fish adversely affected by federal water use projects and land management practices on federal lands. The limit of federal responsibility should encompass projects completed from 1935 up to the present date, as well as all future projects. Restoration of anadromous fish runs

should be at the level of the original carrying capacity of the river system. As an example of federal responsibility, the Bonneville Power Administration should be held financially responsible for any adverse effects of their projects on Columbia River salmonid stocks. Likewise, the U.S. Army Corps of Engineers should be responsible for any adverse effects of dredging to deepen channels or any adverse effects of disposal of dredge spoils. The U.S. Forest Service and the Bureau of Land Management should be responsible for fully restoring streams and portions of streams that their actions have adversely affected. It was suggested that federal agencies closely monitor all future practices and projects, and that they earmark 10% of all gross sales, or lease fees, for restoration of habitat and fish stocks. The assessment of such fees for restoration purposes should not be construed as giving those responsible a license to pollute or degrade the marine and freshwater environments.

The Federal Government should continue to fund both existing and new efforts to investigate and resolve adult and juvenile mortalities and passage problems at dams. In addition, every effort should be made by the Federal Government to fully fund existing anadromous fish hatcheries. The necessary technology and fisheries expertise is available, but adequate federal priority and funding are required to take advantage of the existing potential. Federal funding should be made available from the appropriate federal agencies, with the concurrence of state management agencies, to facilitate efforts of organized groups to restore and enhance salmonid stocks throughout the Pacific coast.

I. PACIFIC: p.64-65, *Restore, Maintain, and Enhance Fisheries Habitats (Trawl)*

Congress should ensure that existing federal environmental regulations applying to marine waters are enforced to prevent habitat destruction or alteration. The following specific actions should be taken:

- (1) Special attention should be paid to protection of beaches, bays, and estuaries by coastal zone protection agencies, with better liaison between interests.
- (2) More effective enforcement of pollution restrictions should be initiated. Consideration should be given to criminal penalties for pollution offenders.
- (3) Disposal of refuse which is not biodegradable should be prohibited within the 200 mile fisheries zone. In addition, discarding large concentrations of organic material which would adversely affect benthic habitat should be prevented.
- (4) Merchant vessel traffic should be controlled to prevent collisions with fishing vessels and to minimize the danger of oil spills on fishing grounds. Steamer lanes should be established that would effectively solve these problems.
- (5) The Federal Government should adopt regulations specifying the locations in which vessel oil can and must be discarded. Oil drilling rigs should not be exempt from discharge regulations.

J. PACIFIC: p.85, *Fisheries Management (Hawaii)*

It was mentioned that inshore habitat is limited to the narrow continental shelf area off the Hawaiian Islands and is vulnerable to overharvest and pollution. It is critical that an effective management program be developed to protect inshore habitat, such as through creation of sanctuaries or preserves.

K. PACIFIC: p.97, *Policy Statement (Island Territories)*

... It shall be the policy of the United States that any proposals or plans for development of island resources shall give first consideration to protection of the fragile reef and shoreline ecosystem, and to the subsistence needs of the people resident to the area; further, that no developmental program or project will be supported by the United States unless it takes into full account and provides maximum protection for the nearshore ecosystem and the subsistence needs of the people.

L. ATLANTIC: *Recommendation #11*

Strengthen laws and enforcement of existing laws relating to the discharge or dumping of pesticides, heavy metals and other toxic substances.

Harmful pollution of the marine environment by pesticides, heavy metals and sewage sludge should be reduced or discontinued. Many expressed the opinion that although numerous

federal and state laws existed, interpretation and enforcement varied widely from state to state or within the same state. It was noted that the disposal of treated sewage often resulted in levels of pollution intolerable to many commercial and recreational species of fishes and shellfish.

M. ATLANTIC: Recommendation #13

Special considerations should be given to seafood waste products which can enhance the marine environment.

Biological waste products are often treated in the same manner as are heavy metals, toxic substances, and other industrial wastes. Such substances include fish and shellfish wastes, seaweed, and sea water used in processing aquatic products. Biological and readily biodegradable substances can be discharged under conditions in which impact is neutral or beneficial to the environment. Crabs, catfish, eels, and other useful marine organisms feed upon many such substances. Regulations should be flexible enough to allow for limited disposal of such substances into the marine environment.

PACIFIC: p.97, Policy Statement (Island Territories)

The most important focus of current concern is upon the tanker superport proposed for construction in Palau, to serve as a trans-shipment facility for mid-east oil bound for Japan . . .

Fisheries leaders insist that this project should be evaluated in accordance with the intent as well as the letter of U.S. NEPA standards. At issue is the principle that political decisions should be based on public hearings and review of all relevant information—a principle written into United States law with respect to environmental matters by the National Environmental Policy Act of 1969 (NEPA). The United States has special responsibilities as trustee of the Trust Territory of Pacific Islands, and should promote no major environmental modification of those islands without full and vigorous adherence to NEPA standards. In the view of many observers, the United States has been in flagrant violation of these principles in recent months.

A. GREAT LAKES: p. 8, Recommendation #1

A comprehensive program for assessment of important fish stocks which will provide on a year to year basis the information needed . . . is a prerequisite for improvement of the fisheries of the Great Lakes . . . This will require additional staffing, equipping and funding of the federal and state agencies involved.

B. NATIONAL PLAN: p.30, Section 1.4 (partial quote used as recommendation in Summary and Recommendation of the National Conference).

A. PACIFIC: p.22, Stock Assessment and Data Collection (Pot)

Management agencies should increase their capability to collect fisheries data to improve management of the commercial and recreational Dungeness crab fisheries . . .

. . . Stock assessment of Bering Sea stocks was considered inadequate. More data are needed on horse crab populations to determine the feasibility of a commercial fishery. The Federal Government should support stock assessment programs and participate in tagging operations. However, fishermen and the state agency are more adept at collecting raw data on fisheries, since they have local capabilities and expertise. Regarding financing of assessment programs, unexpended Grant-in-Aid monies (some states do not use all of their allotment) should be directed to those states where additional funds are needed. Alternatively, more administrative flexibility could be permitted so that monies could be reapportioned for other uses as the need arises.

Assessments based on commercial landings should be terminated, since landings, affected by various factors, are not always representative of stock condition. In addition, subjective data, such as information obtained from fleet captains, should be combined with scientific data in assessment work. Valuable information in fish migration and behavior can be provided by fishermen.

B. PACIFIC: p.50, Stock Assessment and Data Collection (Salmon)

Collection of statistics and assessment projects are considered high priority items for Federal Government action. There is a consensus that a body be created by the Regional Fishery

Management Councils, to be comprised of existing state and federal fisheries experts, for the sole purpose of collecting needed data and conducting resource assessments. Such a group would have the responsibility of conducting all such investigations, thereby coordinating efforts and preventing unnecessary duplication of research projects by state and federal agencies. This group would serve no other function and must necessarily be insulated from the political decision-making process. It was added that more effort be made to publish results of the various research projects and to provide summaries of the data to all interested user groups. Recommendations for specific projects are:

- (1) At all federal dams with fish counting facilities, fish counters should be given an intensive identification course to minimize errors in fish counts.
- (2) Continuous fish counts should be conducted at federal dams throughout normal noncounting periods to check the accuracy of estimated counts made during those periods.
- (3) High priority should be given to programs to determine the status of wild stocks of salmon and steelhead.

C. PACIFIC: p.65-66, *Restore and Maintain Fisheries Stock (Trawl)*

... Adequate records of catch and other data from foreign fishing operations must be supplied to augment domestic research efforts. The United States should not rely wholly on foreign data for stock assessment programs, and domestic capability for data collection must be increased. However, until domestic research efforts can be expanded, the use of accurate foreign data where applicable is recommended.

Stock assessment efforts must be conducted on a stock-by-stock basis to include both scientific data and subjective data from the fleet. Observations of experienced fishermen must be applied to the solution of fisheries problems. Their familiarity with practical aspects of fish behavior and other products of their experience are essential elements which must be actively included in ongoing management and assessment programs. A need exists for consolidation of and greater coordination between government agencies and effective input from the fishing industry on matters of management and stock assessment. Provisions should be made by agencies to actively include input from the industry on programs of stock assessment and data collection.

The use of landings statistics alone for fisheries assessments is not recommended, since landings may reflect artificial constraints such as landing limits imposed by processors rather than serving as an indication of catch per unit of effort. Agencies should not use landings alone as an indicator of stock abundance as these data can be misleading. In addition, state and federal fisheries biologists should be required to spend more time at sea. One of the historical stumbling blocks in stock assessment has been the relatively minor sea time and practical experience of state and federal agency personnel.

Because of dire need and lack of adequate funds for stock assessment programs, the commercial fleet should be used more extensively for this purpose, as opposed to the construction of new government research vessels. Many government research vessels are not equipped for exploratory fishing or fish stock assessment programs. Moreover, such vessels are often more expensive to operate than fishing vessels. Government agencies should investigate alternative methods of obtaining the necessary fisheries data which would entail more participation by the fishing industry, such as chartering fishing vessels to conduct the assessment work or by training commercial fishermen to collect the needed data themselves.

Stock assessment and data collection efforts should be coordinated by the Regional Fishery Management Councils to prevent duplication of effort and funding allocated to a fishery should be proportional to the value and the volume of that fishery. . . .

16. PACIFIC: p.37, *Advisory Services (Aquaculture)*

A need exists for rapid dissemination of information on disease research and methods of control of these diseases. Additionally, an aquaculture data bank should be established and uniform compilation of worldwide statistics should be supported. A major problem within the industry has been a lack of cohesive approach to common problems. The Federal Government could provide assistance in a self-help program designed to educate the public and agencies about the potential and the problems of the enterprise. Finally, a central clearinghouse for

information, as well as a mechanism for internal communications both within NOAA and within the industry, is required.

17. A. PACIFIC: p.28, *Data Services (Pot)*

The Sea Grant inventory of fish products is an advantageous program, since it facilitates the movement of products from fisherman to consumer, but prices should not be listed in order to prevent price cutting. The Office of Management and Budget should change its present policy so that fishery market news reports are made available to fishermen and processors at no charge.

B. PACIFIC: p.57, *Forecasting (Salmon)*

There is a need for improved market forecasting systems, to include product inventories, storage, and market conditions. Computer listings of storage levels, market forecast, and present market conditions should be made available to fishermen and other interested parties on a yearly basis. This information should be categorized by month.

C. PACIFIC: p.58, *Data Services (Salmon)*

Congress should reverse the Office of Management and Budget's decision which forced initiation of paid subscriptions in place of free distribution, and should direct the National Marine Fisheries Service to provide, free of charge, the fishery market news publication and thus to retain the timely flow of information provided by these publications. Participants reemphasized the need for computer listings of inventories, market forecast, and present market conditions.

D. PACIFIC: p.70, *Information Services (Trawl)*

Informational bulletins have been of little use to fishermen and processors in the past. Industry should have more control over the subject matter of these bulletins, so that they are more responsive to industry needs. Reports on trawl surveys, domestic and foreign gear research and development, and fishery economics should be made available to the industry . . . Congress should note that market news reports are furnished free to farmers from the Department of Agriculture and equal treatment for fisheries is urged.

E. PACIFIC: p.76, *Data Services (Processing)*

National Marine Fisheries Service fishery market news reports should be provided to industry at no cost. A recent change in policy to add a considerable charge for this service has restricted distribution of important information and efforts should be made to rescind this policy.

F. ATLANTIC: *Recommendation #32*

Free market news information by the National Marine Fisheries Service should be distributed to the fishing industry.

Many fishermen requested that the market news service information be provided them free of charge.

18. A. GREAT LAKES: p.15, *Recommendation #11*

Increase in extension, research, development, and Sea Grant activities applicable to recreational and commercial fishing.

B. PACIFIC: p.54, *Informational Services (Salmon)*

Commercial fishermen agree that marine advisory services are desirable provided they work closely with industry to determine what is needed.

C. PACIFIC: p.57, *Advisory Services (Salmon)*

Advisory services provided by the National Marine Fisheries Service and Sea Grant are beneficial and should be made available to processors as appropriate.

19. A. ATLANTIC: *Recommendation #14*

The Fisheries Vocational Training Act (16 U.S.C. 760d) should be amended and transferred to the Division of Vocational and Technical Education within the Department of Health, Education and Welfare to encourage vocational training.

Programs that encourage large numbers of new entrants should be limited. Training should be encouraged at the technical level for new entrants and existing industry personnel. Instruction should be made available within the localities where fishermen live and work. Instructional programs should cover areas of business and tax management; electronic installation, maintenance and use; engine repair and maintenance; and hydraulic repair and maintenance. Such activities could be offered through the Office of Sea Grant. The Department of HEW could institute such programs through federal and state departments of vocational education. The Fisheries Vocational Training Act could be amended to promote the vocational training of employers, employees and self-employed persons engaged in the seafood and seafood-support industries. An alternative would be to develop a special seafood training act for administration by the Division of Vocational and Technical Education with yearly funding of \$550,000 to \$750,000. Such programs could be patterned after existing programs such as those at the University of Rhode Island.

B. GULF (SUMMARY): p.2, *Personnel Recruitment and Training*

Federal (and state) funding should be made available to state educational systems to develop vocational training programs for fishing vessel crew members in areas where these programs are needed . . . The CETA, EDA and other labor program funds should be available to both vessel operators and the processing segment to provide "on-the-job" training. NMFS port agents and Sea Grant extension agents should poll vessel operators and processors to determine local needs and expected demand for personnel. These data should be provided annually to the agency administering the federal education funds and coordinating with CETA, EDA, etc.

C. PACIFIC: p.25, *Fisherman Training (Pot)*

Most participants were opposed to any government involvement in this area. They believe that competent fishermen are able to train new people adequately without the help of university or government programs. Some individuals place a relatively high priority on these activities and suggested that technical education relating to fishing skills be upgraded. The United States should develop programs for training fishermen that are as effective as the Soviet programs. If any government training program is considered, a cost-benefit study should be integrated before initiating such a program.

D. PACIFIC: p.55, *Fisherman Training (Salmon)*

Commercial trollers concur that the Federal Government should not be involved in training individuals to become fishermen. They preferred training employees themselves, since each vessel may operate differently. In special instances, there is a need to train engineers and deck hands. Net fishermen supported the continued funding of programs at the college level, such as Sea Grant programs, that offer training in various marine skills.

E. PACIFIC: p. 71, *Fisherman Training (Trawl)*

Fishermen (supported) . . . topic specific workshops conducted by Sea Grant institutions for working fishermen in the Pacific Northwest and Alaska and urge continuation of such programs . . . Curricula at the high school and community college levels should be developed in such supporting fields as welding, refrigeration, navigation, and hydraulics.

F. PACIFIC: p. 82, *Fisherman Training (Hawaii)*

This activity should be given next highest authority in terms of Federal Government action. Grants should be available to help boat owners finance the training of their own crew members, for their specialized fishery. General educational programs in institutions have been ineffective in the past and should not be supported. Most participants recognize the need to attract young, well-trained, local people into the fishery to safeguard the future well-being of the industry. Alternatively, others mention that training large numbers of new people to enter a non-viable industry is not wise.

20. A. ATLANTIC: Recommendation #29

Educational programs, staffed by home economists and nutritionists, which inform the public in the preparation of all types of fresh and frozen seafood should be increased.

Industry and government should expand marketing programs to include the promotion and

advertisement of fisheries products in addition to consumer education. The programs should be jointly funded. Educational and promotional programs which have benefited other food commodities such as dairy, poultry, and beef should be evaluated for use as models for programs benefiting the fishing industry.

B. GULF (SUMMARY): p.3, Marketing and Distribution

Marketing and promotion are areas in which federal efforts should be greatly enlarged. Funding for this program should come largely from the industry and fisheries products through increased taxes and duties on foreign imports as well as domestic taxes and licenses. The same marketing services as provided for agricultural products should be provided to the fisheries industry.

C. PACIFIC: p.40, Marketing (Aquaculture)

The Federal Government should provide aid in advertisement and promotion of the nutritional qualities of cultured products.

D. PACIFIC: p.58, Consumer Awareness and Informed Purchasing (Salmon)

There is need for greater emphasis on consumer awareness programs to aid in market development. There is little benefit in improving fishing effectiveness if consumers are not willing to purchase the products. Palatable products must be developed using underutilized species, and consumer awareness is essential for all species, not just those that are underutilized. National Marine Fisheries Service programs and others which educate the public concerning care, preparation, and serving of fisheries products should be further supported.

E. PACIFIC: p.75, Promotion, Advertising, and Consumer Education (Processing)

An expanded market development program encompassing promotion and advertising of fisheries products, as well as consumer education, should be implemented with joint industry/government participation and, if possible, funded jointly with a matching money scheme. Successful promotional programs utilized for other commodities such as dairy, poultry and beef should be evaluated and perhaps modeled. It is strongly recommended that the industry participate in agricultural trade missions presently conducted by the National Marine Fisheries Service.

F. PACIFIC: p.77, Consumer Awareness and Informed Purchasing (Processing)

... A nationwide advertising campaign is needed to inform consumers of the nutritional and culinary values of fish. Federal assistance in advertisement and promotion of these qualities through the use of television, newspapers, and pamphlets, aimed at various consumer groups and seafood markets is recommended. Government-supported food programs in schools, hospitals, and institutions should be encouraged and, in addition, should be based on domestically caught and processed fish products. Sea Grant should be responsible for distribution of information on the value of fish products and should ensure that this information reaches the concerned public, schools, and retailers. More emphasis is needed on education of junior and senior high school students regarding areas of nutrition and preparation. Additionally, consumers should be aware of the fact that frozen fish, if handled properly, is just as acceptable and palatable as fresh fish. The time is right for industry and government to make a great effort to promote fish as a nutritious source of protein and as one of the best sources of easily prepared food on the market. . . .

G. PACIFIC: p.78, Consumer Awareness and Informed Purchasing (Processing)

Industry and the Federal Government should educate the consumer on methods of selecting a good quality fish product from the shelf and further, how to select the most nutritious form of the product.

H. PACIFIC: p.78, Care, Preparation, and Serving (Processing)

Education on care, preparation, and serving is vital to market development and product acceptance. The use of television, educational programs, home economic extension agents, advertising demonstrations at country and state fairs, and 4-H groups to educate the public are recommended. Publication of recipes for various species of fish, especially for underutilized species, to promote their use is needed. It is recommended that industry and government cooperate in programs to develop standardization in the preparation of seafood products. If

consumers knew how to utilize various species of fish and fisheries products, such products would become more desirable and the demand for them would increase. To aid efforts in this regard, federal funding should be allotted to national organizations of fishermen's wives to assist them with such things as supplies, postage, and advertising.

I. PACIFIC: p.83, *Marketing (Hawaii)*

National Marine Fisheries Service marketing, merchandiser education, and consumer education programs that exist on the mainland should be developed in Hawaii. Participants consider consumer awareness of the nutritional qualities of fish to be highly important. Television and radio time should be employed effectively to this end. Marketing specialists are needed to promote consumption of fish products. Only through consumer awareness of the nutritional value and proper methods of handling and preparing fish products can the market be increased. Consumer education can be improved only with government assistance.

J. PACIFIC: p.86, *Consuming the Catch (Hawaii)*

Educational programs are necessary to help promote acceptability of new or unutilized species such as taape and shark.

K. NATIONAL PLAN: p.45, *Section 3.1*

Establish an effective fishery development program to enable the U.S. commercial fishing industry to enlarge its share of markets through increased productivity, lower costs, and increased acceptability of fishery products to the consumer.

21. A. PACIFIC: p.24, *Information Services (Pot)*

King crab fishermen agree that the Federal Government should conduct a detailed economic analysis of the entire fishery including an evaluation of the impact of alternatives such as variable seasons, the use of refrigerated live tanks, catcher-processor operations at sea versus shore-based processor operations, etc. An economic analysis of the crab fishery would enable fishermen to make better decisions and result in a more efficient fishery economically. . . .

B. PACIFIC: p.26, *Handling and Preserving the Catch: Vessel Sanitation (Pot)*

Alaska crab fishermen believe that methods for handling and preserving crab need to be improved throughout the market chain—from the fisherman to the retail outlet. As a partial solution, they recommended that the Federal Government conduct an economic study of vessel holding techniques. The expense of maintaining a refrigerated seawater holding tank should be determined and compared to the decrease in revenue from mortality of crabs without such a system.

C. PACIFIC: p.53, *Vessel Financing and Insurance (Salmon)*

Commercial salmon interests, including the charter industry, are extremely concerned over the designation of salmon fisheries as conditional fisheries. Salmon fisheries are considered to be fully capitalized or overcapitalized at this time by the Federal Government, therefore financial assistance programs which would encourage entry into these fisheries are not available to salmon fishermen. The industry shares the government's concern that the salmon fisheries are presently overcapitalized and that the new vessels should not be encouraged to enter the fleet. However, government financing still should be made available for the purpose of upgrading existing vessels in salmon fisheries or for purchasing new vessels, recognizing that the old vessel must be retired from the fishery. Participants urge the banking industry to review loan applications on the basis of individual merits and ability to pay rather than on the fact that the fishery is designated conditional and therefore a high risk situation. Banks are currently influenced by the conditional fishery status of salmon fisheries, and thus are reluctant to make loans to salmon fishermen and charter vessel operators.

D. PACIFIC: p.61, *Financial Assistance (Charter)*

The Federal Government should advise the banking industry on the needs of the charter fishing industry. It is difficult for the charter vessel operators to obtain reasonable financial assistance because the salmon fisheries have been declared conditional. The banking industry should be encouraged to review loan applications on the basis of individual merits and ability to pay, rather than assuming that the loan application is a high risk because the applicant participates in a conditional fishery.

Federal agency budgets should request more money for immediate matters making them more responsive to unforeseen problems that arise. One individual cited the need for funding to support an economic survey of the charter industry.

E. PACIFIC: p.72-73, *Development of New Natural Fisheries (Trawl)*

... The Federal Government should publish a detailed market profile on underutilized groundfish fisheries with industry input and cooperation, so that industry can analyze the market situation before investing in such fisheries. The National Marine Fisheries Service has demonstrated competence in economic studies and market forecasting if adequately guided.

...

Effort of government in new fisheries should be to create an economic climate for investment of private capital for development of new fisheries. ...

F. NATIONAL PLAN: p.47, Section 3.1 (partial quote used as recommendation in the Summary and Recommendation of the National Conference).

22. A. ATLANTIC: Recommendation #16

A list of incentives and benefits for the fishing industry should be compiled by the agency responsible for fisheries.

The rural nature of many fisheries makes it difficult for some members of the fishing industry to receive information and counsel on tax benefits available to them. A list of tax incentives and benefits could be compiled by the agency responsible for fisheries and distributed throughout the industry.

B. ATLANTIC: Recommendation #28

Formation of fishery cooperatives should be stimulated. The formation of producing and marketing cooperatives should be encouraged. Producing and marketing sectors could benefit from increased organization and efficiency. The Farmers Cooperative Service, an educational and technical branch of the Department of Agriculture has served land-based food producers and has experience in matters relating to the fishing industry.

C. GULF (SUMMARY): p.8, *Accounting*

The Sea Grant Program should provide basic accounting and bookkeeping instruction for fishermen and dealers through their marine extension program at periodic intervals throughout each year.

23. A. PACIFIC: p.6, *Improved Detection Methods (Bait and Jig Boat)*

Federal funds should be used to acquire more offshore research vessels to improve detection of commercial quantities of tuna.

B. PACIFIC: p.23, *Finding the Fish (Pot)*

... Alaska crab fishermen suggest that the Federal Government assist them in developing new bait for crab fishing. Many fishermen presently are using herring for bait which otherwise could be used for human consumption.

C. PACIFIC: p.23, *Gear Research and Development (Pot)*

... Alaska fishermen stress that additional research is required to improve the effectiveness of tanner and king crab fishing gear. Efforts are needed to develop gear that is more selective in order to reduce handling and subsequent mortality of sublegals. Crab pots also should be developed to prevent harvest of incidental species such as halibut.

D. PACIFIC: p.28, *Development of New Natural Fisheries (Pot)*

A necessary function of the Federal Government is the development of new fisheries through exploratory fishing operations, production trials, and new product promotion.

E. PACIFIC: p.52, *Gear Research and Development (Salmon)*

Salmon and albacore trollers agree that research and development of troll gear for their fisheries is not needed, however, those trollers that fish underutilized species on a part-time basis add that there may be a need for research on gear for those fisheries. Net fishermen

support Federal Government research to develop fishing gear, for harvesting American shad and other food fish from rivers, which would not harvest significant numbers of salmonids. . . .

- F. PACIFIC: p.68, *Improved Detection Methods (Trawl)*
. . . A function of the government might be to describe, through an advisory agency, advanced detection methods used by foreign and domestic fleets, and to distribute the results of such work to fishermen. The advisory functions of Sea Grant and NMFS pertaining to gear development and methodology, though adequately funded, have historically been inadequate. . . .
- G. PACIFIC: p.68, *Fisheries Advisories (Trawl)*
Summaries of all exploratory fishing programs, stock assessments, and pertinent research should be made available to the industry on a timely basis. Participants emphasize that this has not been the case in the past.
- H. PACIFIC: p.68, *Gear Research and Development (Trawl)*
. . . The Federal Government could aid the industry by distributing available technical information on gear from all parts of the world to those concerned, so they may keep abreast of recent developments. However, Federal Government programs should not supplant existing industry research and development programs. The Regional Fishery Management Council and industry should initiate and control needed research in areas of gear research and gear development. A pertinent example is needed research in some areas on gear selectivity.
24. A. PACIFIC: p.27, *Market Development (Pot)*
. . . Because the distribution of crab products is limited, the Federal Government should assist in developing and financing research programs on new methods and techniques for shipping crab to reach new markets.
- B. PACIFIC: p.40, *Data Services (Aquaculture)*
A need exists to upgrade the quality and reliability of fish market news and fisheries statistics. Publications should include information on pricing, product demand, and product availability.
- C. PACIFIC: p.58, *Quality Control in Distribution and Retailing (Salmon)*
Programs are needed to educate merchandisers on proper methods to handle and display fish products. Poorly handled and improperly displayed products can effectively prohibit consumer acceptance. The Food and Drug Administration should be required to periodically inspect retail outlets for spoiled or otherwise unsuitable products.
25. A. PACIFIC: p.38, *Financial Services (Aquaculture)*
The problems of marketing aquaculture products are attributed to the higher cost of production compared to costs of harvesting wild fish. Given the need for increased fish production, for which aquaculture provides major possibilities, government assistance and subsidy in the marketing and processing of aquaculture products is needed.
26. A. PACIFIC: p.74, *Maintenance of Processing Standards for Personal Safety and Plant Sanitation (Processing)*
More money should be appropriated for Sea Grant educational and workshop-type programs on safety and sanitation standards and quality control in processing plants.
- B. PACIFIC: p.78, *Consumer Awareness and Informed Purchasing (Processing)*
A great need exists for some means of quality control of fish products. The Federal Government should be involved in this activity through education of fishermen, processors, distributors, and consumers, concerning proper methods of care and handling. . . .
- C. ATLANTIC: *Recommendation #27*
Industry and government should establish standards regulating the size and quality of fresh and frozen seafood products.
Industry and government, acting jointly, should establish standardized manufacturing practices for the handling and processing of fishery food products, including quality control and mandatory inspection. All imports into the United States must meet these standards.

27. A. PACIFIC: p.58, *Consumer Awareness and Informed Purchasing (Salmon)*

There was particular concern expressed over the safety of fish products. More emphasis should be placed on educating the public concerning proper home processing of seafood, especially home canning. Moreover, there is support for a strong federal/state effort to produce a simple effective method of detecting shellfish poisoning.

B. PACIFIC: p.78, *Consumer Awareness and Informed Purchasing (Processing)*

A larger variety of fish products is desirable and greater availability of wholesome frozen fish products that are uncooked and unbreaded is supported. A definite need exists for smaller unit packaging for senior citizens and single consumers, as well as a greater emphasis on the use of underutilized species. In addition, more kinds of fish products should be available to cater to different tastes. The need for merchandiser education to increase the availability of fish products to the consumer is emphasized.

28. A. ATLANTIC: *Recommendation #6*

The Commerce Department should compile a list of all federal financial sources for commercial port and harbor development.

It was stated that a major constraint to the utilization and development of the fishery resources in the Mid-Atlantic region is the inadequate port and harbor facilities for recreational and commercial fisheries. Inlets and channels which provide access to ports and harbors are inadequately maintained and unsafe. The competition for waterfront property and dock space will become more intense as a result of offshore oil and gas development. A list of all federal assistance programs which relate to public and private port and harbor development should be assembled by the National Marine Fisheries Service, Office of Coastal Zone Management, or other responsible agency and distributed to interested parties. The document should include a step-by-step approach to funding, a simplified explanation of procedures, forms, and addresses of information centers. The document should be made available also through the National Technical Information Services.

B. ATLANTIC: *Recommendation #9*

Safety education programs should be developed and the information disseminated by the National Marine Fisheries Service and the Office of Sea Grant.

Safety education relating to fisheries could be provided through the National Marine Fisheries Service and the Office of Sea Grant, with the assistance of trade associations and the National Safety Council.

C. ATLANTIC: *Recommendation #19*

Investigations should be conducted by the responsible agency on the effects of imported fish products on the domestic industry.

Special attention should be paid to direct and indirect subsidies made to foreign fishing industries; the relative costs of production of domestic and foreign fish products, and the effects of existing tariff structures. Results in such investigations should be made available to all affected parties, and a program of affirmative action should be developed and implemented as soon as possible to permit the domestic industry to compete on an equitable basis in the domestic market. Many foreign countries heavily subsidize their fishing industries. It is alleged that many products from foreign countries are sent to U.S. markets aided by export subsidies which are in violation of the Trade Act of 1976.

D. ATLANTIC: *Recommendation #23*

Access to all financial assistance programs which have an impact on fisheries should be facilitated.

Federal financial assistance programs which could benefit the fishing industry are administered by several federal agencies. Access to such programs by the various segments of the fishing industry would be greatly facilitated by the establishment of a single federal agency which would compile information on such programs and distribute it to the industry. The agency could use an extension service similar to the Agricultural Extension Service to distribute information locally.

E. PACIFIC: p.24, *Vessel Safety (Pot)*

The Federal Government should concentrate on circulating useful safety information to fishermen, such as an evaluation of the quality of various survival suits and resultant recommendations.

F. PACIFIC: p.79, *Research on Nutritional Quality and Safety of the Product (Processing)*

More research is needed on the nutritional quality and safety of fish products. Responsibility for assuring safety, quality, and wholesomeness of fish products rests with all levels in the production and retailing processes. Particular emphasis should be placed on research of toxic substances and the determination of the validity of maximum allowable concentrations for U.S. products that are much lower than requirements of foreign countries. Emphasis should be placed on the concentration of the particular toxin in the finished product, not on the concentration in the fish. . . .

G. PACIFIC: p.103, *Policy Statement (Island Territories)*

United States assistance will be required in the form of scientific, technical, and economic advice for program development, and in many cases through direct assistance in developing the required physical support capabilities (e.g., icing, freezing, frozen storage and transport facilities.)

29. A. GREAT LAKES: p.13 *Recommendation #7*

Planned programs to provide access where it is now lacking would create better conditions and new opportunities for recreational and commercial fishing. This could be accomplished by expansion of the federal program for harbors of refuge and of the program for marina developments under The Land and Water Conservation Fund. . . .

B. GULF (SUMMARY); pp.8 & 15, *Harbors and Ports*

The Sea Grant Program should develop a manual documenting federal funding available to local governments for construction of recreational fishing and boating facilities.

Recreational boat launching ramps and access areas should . . . be included in . . . federal projects. State and local governments should increase their recreational boating access programs in areas where privately financed facilities are unavailable or exorbitant in their launching fees.

C. GULF (SUMMARY); p.13, *Research Needs*

A major factor limiting adequate research for recreational fisheries at the state level is the fact that the federal aid Dingell-Johnson sport fisheries research and development funds are generally unavailable to the state agency regulating coastal fisheries. This not only limits research on coastal species but also limits the funding for ramp construction and other development projects. In most coastal states these funds go entirely for development in freshwater despite the fact that a large percentage of the tax revenue supporting this program is derived from saltwater anglers. A change in the federal and state policy of administering these funds should be made so that a portion of the funds is available to meet the needs of the coastal recreational fishermen even in those states requiring no saltwater sportfishing license.

D. PACIFIC: p.43, *Assuring Public Access to Shorelines, Waters, and Fish (Recreational)*

The Federal Government should assure that public access to the shoreline is provided at various points along the coast.

Southern California participants are concerned about the delineation of the sea boundary between the United States and Mexico fishing zones which will result from concurrent jurisdiction extension. They fear that extension of the present boundary will result in Mexican jurisdiction over the Cortez Banks, a popular U.S. fishing ground. The boundary should be redrawn so that the Cortez Banks will fall within the fishery zone of the United States.

E. PACIFIC: p.53, *Boating Operations and Safety (Salmon)*

Recreational fishermen stated that due to the number of drownings in boating accidents, there is a great need for safety education, especially for the "weekend" boater. The Federal Government should make it a policy to supply free literature to the states and general public

pertaining to boating safety. There is particular concern that boaters be educated on the availability and qualities of the various life preserving devices, e.g., life jackets and coveralls which are insulative as well as buoyant. . . .

F. PACIFIC: p.85, *Recreational Fisheries Advisories (Hawaii)*

Federal support for marine education is necessary. Education is of prime importance, specifically regarding handling, preserving and transporting the recreational (as well as commercial) catch to ensure its safety and quality. Educational programs are also needed to promote conservation and full utilization of the catch. This might help to reduce overharvest of inshore resources.

G. PACIFIC: p.86, *Harbor Facilities (Hawaii)*

Participants note a serious shortage of safe harbors and harbor facilities for mooring, loading, fueling, etc., which limits recreational fishing opportunities.

H. NATIONAL PLAN: p.53, *Recommendation #4*

The following specific recommendations are summarized from the text:

Expand and accelerate research needed for the improved management use of recreational fisheries, and improve the distribution of information thus obtained.

Increase the amounts and kinds of fisheries resources available for recreational use.

Increase access for recreational fishermen and others to shorelines, waters, and fish.

Determine the needs of commercial enterprises for assistance in developing access, facilities, and services upon which marine recreational fishermen depend.

I. ATLANTIC: *Recommendation #1*

Increase research on species of importance to recreational anglers.

Sportfishermen stated that federal fisheries research programs addressed only species of commercial value, resulting in a scarcity of information on species of recreational interest.

J. ATLANTIC: *Recommendation #2*

Develop a program to provide funds for access facilities for recreational fishermen.

Lack of adequate access facilities (e.g., boat ramps, piers, bridge walkways) for shore and boat fishermen was cited as a serious problem in many coastal areas. It was suggested that a portion of Dingell-Johnson funds derived from tax on sportfishing equipment could be made available to acquire access sites and provide necessary facilities even in states with no marine sportfishing license.

K. ATLANTIC: *Recommendation #3*

The Commerce Department should compile a list of all available sources from which funds could be obtained for recreational access needs.

State and local planners were concerned about the lack of centralized information on available sources of funds for recreational access needs. It was requested that the Offices of Coastal Zone Management at the federal and state levels work cooperatively with the planners to address recreational access needs. Lack of access facilities in areas where highways intersect with navigable waterways was considered by many to be an issue which deserves immediate attention.

L. ATLANTIC: *Recommendation #5*

Dingell-Johnson funds should be administered in an equitable manner for the benefit of saltwater anglers.

Dingell-Johnson monies obtained from taxation of saltwater fishing tackle, bait, and other equipment should benefit saltwater anglers. State fish and game agencies responsible for enhancing fisheries presently use Dingell-Johnson funds for the benefit of licensed freshwater fishermen. Such funds are not used to benefit unlicensed saltwater anglers. Section 777c of 16 U.S.C. should be amended to enable state agencies responsible for marine sport fisheries, or the regional councils to be eligible for funds based on the number of identified marine anglers.

30. PACIFIC: p.49, *Allocation of the Resource Including Effort Limitation (Salmon)*

Many individuals may not possess full knowledge of the issues, facts, laws, and problems surrounding the allocation of fish resources, e.g., historical and treaty rights of the users, the basis for court decisions which affect allocations, and the jurisdictional rights of particular governmental entities. A better understanding of the situation is clearly needed before rational decisions can be made and accepted. Federal monies should be appropriated to Sea Grant or other appropriate agencies to investigate these problems and to conduct workshops in appropriate areas designed to educate the public to this end, and to promote the necessary dialogue which can lead to equitable and publicly acceptable decisions.

31. NATIONAL PLAN: p.43, *Section 2.4.3*

State and federal fishery agencies should increase their habitat information and make it more readily available to other relevant agencies, to the scientific community, and to the general public.

32. A. GULF (SUMMARY): p.5, *Adequacy of Funding for Management*

The Commercial Fisheries Research and Development Act (P.L. 88-309) should be fully funded to the authorized level and established as a budget line item. P.L. 88-309 funds should remain for research and development and should not be recognized to include management requirements and responsibilities as set forth in P.L. 94-265.

Additional funding should be made available to the National Marine Fisheries Service for instituting the management regime mandated by the Fishery Conservation and Management Act of 1976 (P.L. 94-265). National Marine Fisheries Service should make funding from this source available to the states to provide for management and research on species which occur in state waters during part of their life cycle and which are managed in the fishery conservation zone by the regional council. Sound management of these estuarine-dependent species while in state waters is necessary for sustained catches in the fishery conservation zone.

B. NATIONAL PLAN: p.33, *Section 1.8 (partial quote was used as recommendation in the Summary and in National Conference Recommendations).*

33. GREAT LAKES: p.11, *Recommendation #4 (exact language used as a recommendation in the Summary and Recommendation of the National Conference)*

Further quote:

...Funding that will assure the present level of control of lamprey is basic to the maintenance and improvement of the fisheries of the Great Lakes...

34. PACIFIC: p.48-49, *Allocation of the Resource Including Effort Limitation (Salmon)*

Participants are acutely aware of the difficult allocation decisions which must be faced in managing any resource such as salmon or steelhead for which the demand significantly exceeds supply. However, they are confident that given significant augmentation in the total available harvest, the reasonable needs of all user groups can be met. They believe that the Regional Fishery Management Councils duly established under the Fishery Conservation and Management Act of 1976 offer the institutional framework for comprehensive fisheries management planning, and therefore for equitable allocation of harvest rights and benefits. In the National Standards mandated under the Act, they perceived the guidelines necessary for achieving this equity in allocation—the optimum utilization concept; management of a stock as a unit throughout its range; nondiscrimination between citizens of different states; and economic efficiency as a management goal.

At all Pacific area Eastland Fisheries Survey hearings, groups of users competing for the diminishing salmon resources available have emphasized their special claims upon a significant share of the resource. These special interest arguments include insistence by Indian tribal spokesmen that U.S. treaty commitments to special fishing rights for Indians be fully honored; concerns of non-Indian commercial fishermen that their traditional right to make a living through harvest of this valuable food source be maintained; and emphasis by sport fishermen upon the broad public benefits accruing from their recreational and personal use harvest of the resource.

These competing positions are extensively documented in the general literature on salmon fisheries, in the wide coverage given the subject in the public press, and in the records of a multitude of public hearings, including those maintained as a permanent record of the Eastland Fisheries Surveys by the Pacific Marine Fisheries Commission and those of the Indian Policy Review Commission established by the Congress. Therefore, participants agreed (although not unanimously) that these arguments need not be reviewed again in the present summary of the Eastland Fisheries Surveys. Further, they were united in the view outlined earlier that problems of allocation would become entirely manageable if salmon production were restored to levels commensurate with the carrying capacity of the environment through proper conservation, enhancement, and restoration of the salmon stocks and habitat.

35. A. PACIFIC: p.21, *Restore, Maintain, and Enhance Fisheries Habitats and Stocks (Pot)*

... There was some concern that herring and salmon seining as well as trawling operations in shallow water areas are taking significant amounts of immature and softshell crab. Those fisheries should be monitored closely and management regulations should be designed to minimize the incidental catch of Dungeness crab.

B. PACIFIC: p.21, *Harvest Rights and Access (Pot)*

Pot fishermen are particularly concerned over foreign interference in their fishery. Foreign trawl fleets are responsible for considerable losses of domestic fixed gear, and at present there is a lack of communication between the U.S. government and the foreign fleets regarding the location of domestic gear. Increased communication between governments as well as adequate protection obtained by designating certain areas as pot sanctuaries is necessary. Foreign fishing vessels should be excluded from such areas.

C. PACIFIC: p.26, *Recreational Fisheries (Pot)*

Recreational fishermen should be informed about commercial fishing operations to minimize conflicts with gillnet and crab-pot operations. Additionally, more biological information on how to determine the sex of crabs, and why size restrictions are necessary should be distributed. It was felt the Federal Government can assist greatly in the enforcement of recreational fisheries regulations.

D. PACIFIC: p.66, *Harvest Rights and Access (Trawl)*

Foreign fixed-gear fisheries should be restricted to areas where domestic trawl fisheries do not exist. Gear conflicts must be resolved at the local level by the Regional Fishery Management Councils with full participation from the industry. Foreign fishermen should not be allowed to use gear which domestic fishermen are prevented from using. Congress must ensure harmony between state agency regulations on gear, seasons, and catch quotas, which apply to stocks of mutual concern to those states.

36. A. GULF (SUMMARY): p.6, *Quality Control*

NMFS should develop a set of marketing standards which could be applied to various seafood products to grade the degree of freshness, wholeness, etc.

B. PACIFIC: p.27, *Market Development (Pot)*

Establish uniform quality standards for domestic and foreign products. Poor quality control of imported products has damaged the market for domestic purposes.

Establish federal quality standards for fish products similar to standards imposed on beef. A governmental inspection system would be desirable.

Establish labeling standards that would provide more specific information concerning the origin as well as the quality or grade of the product.

C. PACIFIC: p.40, *Nomenclature and Labeling (Aquaculture)*

The function of the Federal Government in this area should be to encourage industry to generically identify products on a national basis and to promote truthful labeling. Labels should include the date of catch, the optimum length of storage, and accurate processing information to include product form (frozen, fresh, smoked), and type and quality of chemical additives.

D. PACIFIC: p.56, *Product Grading and Quality Control (Salmon)*

Congress should enact legislation requiring mandatory and standardized grading and labeling of salmon products to guarantee that a distinction is made concerning the various qualities of salmon products. Such a program would help to increase consumer confidence and expand markets for salmon products. For example, a grading system would aid in the distinction between low-grade and hatchery surplus salmon and high quality commercially harvested salmon. Existing agencies, such as the Food and Drug Administration, should be given the responsibility for these activities.

E. PACIFIC: p.57, *Nomenclature and Labeling (Salmon)*

Participants recommend that product labels contain information regarding the location and date of catch. Labels must distinguish between domestic salmon products and imports. In addition, the common name of the species should be printed on the label. In some cases labels have been misleading or erroneous concerning the species contained in the package or can. Congress should support recent efforts to revise and modernize the names of fish products to increase consumer acceptance. Efforts must be supported to standardize the common names of fish products, and market research should be conducted to determine the most acceptable means of accomplishing this.

F. PACIFIC: p.74, *Quality Control-Inspection and Enforcement (Processing)*

Mandatory inspection programs conducted by a fisheries-related agency should be instigated and provided without charge for all processing plants. Uniform production standards should be established for all areas and products. Foreign products exported to the United States must pass equivalent quality control inspection.

G. PACIFIC: p.75, *Nomenclature and Labeling (Processing)*

Increased enforcement is necessary to prevent misrepresentation of products on package or container labels. A unified nomenclature system should be developed which is applicable to the seafood marketing system and acceptable to the marketing sector. Labeling procedures should be established that would provide more information to the consumer concerning where the product was caught and packaged, as well as how the product was handled.

H. PACIFIC: p.78, *Consumer Awareness and Informed Purchasing*

The Federal Government should place a high priority on standardization of names of fish products, as well as the establishment of appealing or more aesthetic market names for species of fish with unattractive names. Efforts of the National Marine Fisheries Service in this regard should be continued and expanded. A labeling procedure that would provide more factual information concerning the origin of the product is needed. A label should state whether the product is fresh, frozen, smoked, etc., the date on which the product was harvested or processed, and the country of origin. A system to monitor processors and retailers to accomplish this goal is necessary.

37. A. GREAT LAKES: p.15, *Recommendation #12*

Promotion of quality control programs to protect and promote consumer and producer interests and to increase the market for Great Lakes fish. . .

The safety and quality of Great Lakes fishery products can best be assured by a comprehensive fisheries inspection program. The program should take advantage of existing capabilities in federal and state agencies and in industry so that it is operated economically and efficiently. The inspection program should be implemented in a way that will not disrupt industry unnecessarily and be preceded by a transition period to enable the necessary adjustments to be made by industry. As an interim measure, industry should be encouraged to participate in the United States Department of Commerce voluntary seafood inspection program.

B. PACIFIC: p.56, *Inspection and Enforcement (Salmon)*

Congress should pass legislation requiring mandatory quality inspection of imported products.

C. PACIFIC: p.76, *Regulation and Inspection (Processing)*

Individuals who inspect fisheries products along the distributional chain and in the retail outlets should be specifically trained for seafood inspection. Existing regulations should not

cause undue hardship on the fishing industry, and any new regulations should be developed jointly with the industry. Regulations should reflect the needs and demands of the seafood market.

38. GREAT LAKES: p.13, *Recommendation #8*

Restoration of a healthy commercial fishing industry in the Great Lakes will depend in large part on developing markets for those species produced in abundance whose production can probably be maintained through better management. At present there is little incentive to harvest these species because they do not bring a price that covers the cost of production.

The Federal Government . . . has considerable experience in market development . . . This assistance should be made available for market development of Great Lakes fisheries products. . .

39. A. PACIFIC: p.26, *Advisory Services (Pot)*

Merchandiser education on the proper method of handling and displaying fisheries products is badly needed. Free technical advice should be extended to the industry by the Federal Government to facilitate industry compliance with EPA and other environmental regulations.

B. PACIFIC: p.76, *Merchandising Methods (Processing)*

The need for merchandiser education to maintain high quality products at the retail level is emphasized.

C. PACIFIC: p.76, *Regulation and Inspection (Processing)*

Education of distributors and retailers concerning proper methods of handling and displaying fisheries products is critically important. Deterioration of public acceptance of fisheries products results where such products are poorly stored and carelessly displayed. The Federal Government should take the lead role in merchandiser education.

D. PACIFIC: p.79, *Merchandiser Education (Processing) (partial quote used as recommendation in Summary and Recommendations of the National Conference)*

40. A. GULF (SUMMARY): p.3, *Marketing and Distribution*

The distribution of Saltonstall-Kennedy funds should be improved for marketing and fishery development. Any such expanded marketing program should be subject to input and direction from the industry. Part of the revenue should be directed toward marketing and new product development for underutilized species with allowance for contracting some of the product development with universities, etc.

B. PACIFIC: p.7, *Marketing (Round-Haul)*

Development of a volume market for squid is essential to expansion of the fishery. Some participants suggested that the Federal Government assist in developing or expanding the existing squid market.

Anchovies are one of the most abundant fish found off California, yet finding a market for this species is difficult. The Federal Government should develop markets for domestically-caught anchovies in underdeveloped countries. Herring fishermen note that existing laws in support of access to foreign markets for herring roe have been beneficial and should be continued.

C. PACIFIC: p.27, *Market Development (Pot)*

Harvesting and processing abilities already exist to fully develop the tanner crab fishery, but the lack of market prevents full utilization. Since Japan is the major market presently, the domestic market must be expanded to absorb full production. . .

D. PACIFIC: p.31, *Marketing (Market)*

. . . federal support is necessary to initiate a nationwide program to promote fish products, especially those derived from unutilized fisheries. They emphasized that industry has hesitated in the past to invest in promotional programs of underutilized species, and that the state government does not have the capabilities to develop markets. Participants support federal investment in the development of overseas markets for domestic fish products. They favor the concept of utilizing fisheries presently capitalized by foreign fleets and selling the product in already established markets in foreign nations. Rockfish fishermen, particularly, are

concerned over the lack of market demand for their product and suggest that the government assist the industry in expansion of the market for rockfish, to ensure that during peak production periods all fish harvested can be utilized. In general, this group rejects major federal intervention in the marketing segment except in the few specific cases noted. They profess the attitude that if a market could be created for a particular product, then the industry is entirely capable of producing that product without governmental intervention.

E. PACIFIC: p.57, *Promotion and Advertising (Salmon)*

Expansion of existing markets and development of new markets for underutilized or unutilized species is recommended. Salmon fishermen recognize that they may desire in the future to invest in underutilized fisheries. They support the promotion of fish products, especially those from depressed fisheries, through the establishment of home economic extension and 4-H programs, as well as through the use of such products in schools and institutions.

F. PACIFIC: p.63, *Overview (Trawl)*

Survey participants concur coastwide that market development is the major factor limiting the success of the trawl fishery. Government actions or inactions have often hampered market development, such as allowing the entrance of directly subsidized foreign fishery products into the American market, federal agency prohibitions against the sale of new products and unilateral government fishery projects which have ignored market realities.

Further, fishermen are appalled at the attitude of the Office of Management and Budget in refusing government participation in fishery market development as well as general fishery development. The Pacific coast trawl fishery urges the Federal Government to help create, in concert with the industry, an economic climate to enhance the production, processing, and distribution of American fishery products. For example, a system of compensatory tariffs should be placed directly upon subsidized foreign fishery products. Where applicable, a system of finite federal grants-in-aid to share costs with industry in pilot programs to establish new fisheries and fishery products is supported. Further, the use of tax incentives to encourage development of new fisheries is desirable. American fisheries should receive federal aid commensurate with that provided to other food-producing industries. Again the coordination and implementation of such programs must involve industry input. Failure to include the fishing industry as active participants in program planning and execution at the national and regional level has been a crucial factor limiting the effectiveness of government efforts.

G. PACIFIC: p.72, *Development of New Natural Fisheries (Trawl)*

Further development of a domestic fishery for groundfish along the entire West Coast, including the Gulf of Alaska and Bering Sea, is fully supported. The development of new fisheries, such as those for dogfish, hake, and pollack, is also encouraged. Particular emphasis is placed on the development of markets for currently unutilized species which are discarded at sea. Development of such fisheries would relieve pressure on traditional fisheries and allow overharvested stocks to be restored. It is recognized that lack of markets and low prices are the bottlenecks preventing full development of such fisheries

H. ATLANTIC: *Recommendation #30*

Floor prices for designated underutilized species should be established.

It was recommended that floor prices for underutilized species be established by the responsible agency to encourage the harvest of low-value species.

41. A. PACIFIC: p.6, *Vessel Financing and Insurance (Bait and Jig Boat)*

...Tax benefits should be made available to those building smaller vessels and vessel financing should be modified to allow payment of mortgages over a longer period of time.

B. PACIFIC: p.69, *Vessel Financing and Insurance (Trawl)*

Agencies within the Federal Government should cease bickering about Capital Construction Fund interpretations (specifically, the IRS and Department of Commerce). The Internal Revenue Service should modify guidelines so that depreciation schedules have a similar time duration as financing schedules. If only ten years' credit can be obtained to finance a vessel modification or modernization, then the depreciation schedule should also apply to a ten year period.

42. A. GULF (SUMMARY): p.1, Taxes

Congress should grant the fishing industry the same tax advantage on the purchase of material and equipment used by the industry as is presently extended to the agriculture industry and farmers.

B. PACIFIC: p.75, Other Assistance to Processors (Processing)

Congress should encourage, through tax incentives, investments of capital in American shore-based plants which process fish caught by American fishermen. . .

C. ATLANTIC: Recommendation #24

A comprehensive financial assistance program to improve shoreside commercial facilities should be developed.

Fish processing is a capital and labor-intensive business. The lack of low-cost, long-term capital has deterred modernization and economic growth in many coastal areas. Existing financial assistance programs do not adequately meet the needs for shoreside facilities and processing plants. Additional capital investment will be required to encourage expansion of shoreside facilities. Federal stimulus in the form of low-cost loans, mortgage insurance or extended repayment periods is recommended.

43. A. GULF (SUMMARY): p.5, Loans

NMFS should develop a manual for fishermen and processing and support industries to summarize all federal loan programs and provide guidelines for applying for such loans.

B. PACIFIC: p.37, Financial Services (Aquaculture)

Federal financial aid programs in support of aquaculture are necessary. . . The provision of low interest long-term loans through agencies such as the Small Business Administration or the Production Credit Association is an existing possibility, but the guidelines for making such loans should be clearly defined with respect to aquaculture.

C. ATLANTIC: Recommendation #26

Legislation should be enacted to fund and organize Aquatic Production Credit Associations.

Congress should establish a credit system for fisheries similar to the Production Credit Associations for farmers, to be administered by the Farm Credit Administration. The financing system could provide specific terms, flexible payback periods based on production, and access to low-cost sources of money.

44. A. PACIFIC: p.31, Development of New Natural Fisheries (Market)

Those wishing to participate in experimental fishing ventures for new species, pilot processing demonstrations, and production trials in new fisheries should qualify for federal loans with low interest rates. Special assistance should be provided in order to encourage individuals to invest in such high risk activities.

B. PACIFIC: p.72, Development of New Natural Fisheries (Trawl)

Government should bear the cost of exploratory fishing and production trials for new fisheries, since industry cannot afford to engage in high risk adventures. This is one of the few areas where government should be directly involved in the fishery. These pilot programs should be funded by grant-in-aid funds when requested by the industry. . .

C. PACIFIC: p.77, Development of New Natural Fisheries (Processing)

Exploratory fishing and production trials are roles of the government since industry is unable to engage in such high risk adventures. Domestic fisheries should be established for Pacific hake, pollack, and dogfish in the northeast Pacific. Problems exist in the lack of markets and economic feasibility for new fisheries, as well as for unutilized species now discarded at sea. Further development of a domestic groundfish fishery in the Bering Sea and in the Gulf of Alaska is recommended. Assistance from the Federal Government might be in the form of long-term, low-interest loans. Cooperative government and industry ventures for groundfish processing operations are recommended.

D. PACIFIC: p.79, *Product Innovation (Processing)*

... Federal Government programs which would support pilot marketing efforts for underutilized species and for innovative process products are needed. This would help reduce the risk to industry of investing in such efforts and would encourage the development of new and innovative products.

45. PACIFIC: p.96, *Policy Statement (Island Territories)*

Islanders urge that the Island Territories be exempted from those provisions of the Jones Act which require that vessels larger than five net tons used in commercial fishing operations must be of U.S. construction. Guamanians document the urgency of this problem by citing the prohibitive cost of importing U.S. hulls—up to ten times the cost for transportation alone of equivalent hulls from Japan or Taiwan (1500 miles from Guam to Tokyo; more than 6,000 miles from Guam to San Francisco or Los Angeles).

A. ATLANTIC: *Recommendation #7*

Develop a special port and harbor fund to provide additional financing of projects benefiting commercial fishermen.

If existing funds for projects benefiting commercial fishermen are inadequate, a special fishery development fund should be authorized for administration by the responsible fishery agency, or by the regional management councils. Long-term loans or grants should be made available to assist fishermen in reaching fisheries utilization objectives. Money for the fund could come from Saltonstall-Kennedy funds, general appropriations, or an amended Dingell-Johnson Act.

Legislation for a specified fishery utilization and development fund should contain the following provisions:

- A. Loans to individuals and municipal governments
- B. Grants to augment other federal loans
- C. Terms—30 years maximum
- D. Interest—government cost of money
- E. Coverage of the cost of public and private dredging and harbor maintenance performed in emergencies, such as immediately after damage or alteration by major storms.

The program could provide coordination for states and industry for the many emergency assistance programs not specifically related to fisheries or to harbor and channel maintenance. The program should be administered by the agency responsible for fisheries utilization and development.

B. GREAT LAKES: p.13, *Recommendation #7*

Lack of suitable and adequate boat access to the lakes affects both commercial and recreational fishing. . . sizeable areas are little fished due to the absence of suitable launching, docking and berthing facilities. Access development has not kept pace with the increase in recreational fishing boats resulting in undue concentration of fishing in areas with reasonable access and relatively little use of large areas which have the potential of affording food fishing. . . Access for commercial fishing vessels has been decreasing due to increased competition for port facilities from commercial traffic arising from the St. Lawrence Seaway Development and from shoreline development for other uses. . .

Planned programs to provide access where it is now lacking would create better conditions and new opportunities for recreational and commercial fishing. This could be accomplished by expansion of the federal program for harbors of refuge and of the programs for marine developments under the Land and Water Conservation Fund. There is a need also for a loan guarantee or similar program which will enable commercial fishermen who own their dock facilities to obtain loans at reasonable interest to repair and modernize these facilities. The current deterioration of these facilities is limiting commercial fishing operations and adding to their costs.

C. GULF (SUMMARY): p.3, *Harbors and Ports*

Local, state and federal programs are needed to provide additional docking facilities. Often harbor plans and developments which are usually partially federally funded do not take into

account the needs of domestic fishing vessels. The Federal Government should require consideration of these needs as a prerequisite to approval of federal funding. Coastal zone management plans should consider these needs in regional planning.

D. PACIFIC: p.6 Fisheries Management (Bait and Jig Boat)

The Federal Government should provide aid for construction of new berthing facilities for vessels in the San Diego area. Presently, commercial boats are not allowed to use many recreational facilities in the San Diego area, moreover the cost of berths at recreational facilities is beyond the reach of commercial fishermen.

E. PACIFIC: p.29, Harvest Rights and Access (Market)

Access to the fishery is limited by the lack of berthing spaces for small commercial vessels. Federal Government assistance in the construction of berthing spaces is needed.

F. PACIFIC: p.82, Harbar Facilities (Hawaii)

Present Hawaiian harbor facilities, including washing ramps, fueling stations, icing facilities, and mooring spaces are inadequate. The Federal Government is urged to assist in improving these facilities.

G. PACIFIC: p.100-107, Policy Statement (Island Territories)

Development of new commercial fisheries in the Island Territories must follow a step-wise progression from present methods and support capabilities to those required for more sophisticated technological operations, and for the sustained production schedules required for a successful commercial enterprise. . .

Fisheries development programs for the Pacific Island Territories must be vertically integrated to achieve synchronous supportive capabilities throughout the sequence of functions required—harvesting, dockside handling and processing, storage, transport, and marketing.

United States assistance will be required in the form of scientific, technical, and economic advice for program development, and in many cases through direct assistance in developing the required physical support capabilities (e.g., icing, freezing, frozen storage and transport facilities).

Encouragement of recreational fisheries requires many of the same processes and developments as for commercial fisheries. . .

H. PACIFIC: p.107, Policy Statement (Island Territories)

Guamanians. . .stressed the need to develop more adequate berthing and service facilities for all phases of commercial fishing operations, including recreational charter vessels. They urged that the Navy proceed at once with very slow-moving plans to relocate ammunition off-loading facilities and thus free a portion of Apra Harbor for this needed commercial docking development.

47. A. ATLANTIC: Recommendation #18

Tariffs on fish nets and netting should be substantially reduced.

A reduction of the tariff on imported nets and webbing by as much as 80% and the elimination of the 25¢ per pound plus 32.5% ad valorem tax will help American fishermen and will result in little harm to the United States netting manufacturers. The passage of legislation similar to Senate bill 3270 of the 94th Congress containing provisions to allow for a gradual reduction in tariff rate amounting to 80% over a two-year period will permit distributors and dealers to dispose of high-priced inventory.

B. GREAT LAKES: p.14, Recommendation #10

Costs of operation are substantially increased by present restrictions on purchase of foreign boats, duties on foreign made netting and the Federal Use Tax on private carriers. The restrictions on purchase of foreign made vessels and the duties on foreign made netting should be reduced or removed.

Private carriers hauling their own fisheries products should be exempted from the Federal Use Tax.

C. PACIFIC: p.57, *Tariff and Non-Tariff Regulations (Salmon)*

Participants supported tariffs or quotas on foreign imports of fishery products to protect the domestic industry, and recommended that the United States remove the duty on fishing gear purchased from foreign nations, particularly web and cordage for nets.

D. PACIFIC: p.70, *Vessel Financing and Insurance (Trawl)*

The existence of excessive tariffs on web and cordage purchased from foreign countries and used in the construction of fishing gear creates undue hardship on domestic fishermen. The Packwood-Muskie bill which would remove the excessive tariffs is supported.

48. A. PACIFIC: p.28, *Tariff Regulations (Pot)*

Participants recognize the need to increase the domestic production of fish products to bring about a more favorable balance between imports and exports. All support an investigation into the use of tariffs to correct this situation. Tariff considerations could be used as a negotiating tool in protecting American fisheries interests. Imports inferior in quality to domestic products should be restricted. Foreign products should meet the same quality standards applied to U.S. products, thereby making prices more comparable and competition more equitable.

B. PACIFIC: p.76, *Tariff Regulations (Processing)*

The difficulty of competing with foreign fishing operations, which in some cases are government subsidized and, in others, operate with a far lower standard of living for participants, is a major problem. Domestically produced fishery products cannot compete effectively with many foreign imports. As long as major foreign producers export excessive quantities to the U.S., they can control U.S. competition. Where foreign intervention impedes the revitalization and development of the domestic industry, tariffs, quotas, or other protective measures should be employed. Formulation of such protective measures should be a joint effort of industry and government.

C. PACIFIC: p.96, *Policy Statement (Island Territories)*

The United States presently imposes the same duties on tuna processed in the Trust Territory of the Pacific Islands that are placed on foreign products. Since the relationship of the Trust Territory to the United States is special and unique, and since it is in the interest of the United States to foster economic self-sufficiency for the Trust Territory, its people urge that the U.S. tariff barriers be removed from fish processed in the Trust Territory. Since the United States is a major potential market for future production of tuna in the Trust Territory, removal of this barrier would provide significant incentive for development of tuna canning capabilities in those islands. It would thereby stimulate joint venture interest among U.S. investors, and produce strengthened economic ties between the Trust Territory and the United States.

Trust Territory leaders urge removal of this severely inhibiting trade barrier as a vitally needed stimulus to the economic development of the islands. They also stress its importance as a salutary demonstration of U.S. assistance to the people of those islands, in keeping with the intent of the trusteeship mandated by the United Nations.

49. A. GULF (SUMMARY): p.1, *Taxes*

Congress should provide the mechanism by which duties could be imposed on foreign fishery products which drastically depress domestic prices for domestic landings and production of these products. Such a system should be flexible and allow for reduced duties during periods of domestic shortages.

B. ATLANTIC: *Recommendation #20*

United States participation in international aid programs should be investigated.

It was noted that many international aid programs which are funded partly or totally with U.S. capital through the international banking system aid the development, promotion or maintenance of foreign fishing operations. Products of such operations often compete with American products in United States markets. It was recommended that Congress conduct an investigation to reveal the effects of such programs on the American fishing industry.

C. ATLANTIC: Recommendation #21

A system should be developed to continually monitor international aid programs.

International aid programs should be monitored, and the United States domestic fishing industry should be advised of grant or loan applications for programs which might affect adversely any segment of the domestic industry. The United States should not provide funding for programs which would be harmful to the domestic industry.

50. PACIFIC: p.69, *Vessel Financing and Insurance (Trawl)*

Policies of the Export-Import Bank that allow foreign fleets unfair financial advantages should be altered. The U.S. Export-Import Bank has subsidized the production of vessels in United States shipyards with U.S. dollars. These vessels have then entered foreign service to fish in competition with domestic fleets and are sending products into the United States which compete with domestically caught fish products. Further, activities of the Overseas Private Investment Corporation should be restricted to prevent harmful effects on the domestic fishing industry. Foreign fishing operations assisted financially by OPIC often compete with the U.S. industry by exporting relatively cheap subsidized products to this country.

51. A. ATLANTIC: Recommendation #10

Maritime labor standards should be modified to exempt independent fishermen.

Generally only those fisheries with high accident rates have liability insurance. Many fishermen and small boat operators do not carry insurance. Several organizations provide member coverage under Blue Cross/Blue Shield or other similar plans. Other groups provide income protection plans or other similar forms of common insurance, including workman's compensation and state unemployment insurance. However, many common or group carriers, concerned with liability under the Jones Act and the Longshoremen's and Harborworkers' Act, have terminated policies covering fishermen and fish-house workers. A solution to the problem would be to exempt fisheries workers not working under an employer/employee or union contract from the Jones Act or provisions of the Longshoremen's and Harborworkers' Act.

There was general agreement that adequate insurance coverage could be obtained from group plans or common carriers at a rate below that of maritime insurance. Less than 2% of the U.S. fishing industry now operates in offshore waters under maritime standards or employer/employee contracts. This percentage may drop as a result of problems confronting U.S. registered vessels on the high seas (e.g. in the tuna and shrimp fisheries). Therefore, approximately 98% of the fishing industry is required to adhere to maritime labor standards which do not apply to them. Shoreside plant operators requested that fish-house workers employed in the handling and processing of aquatic products be exempted from wage and hour laws. Such exemption is now provided to similar handlers and processors employed in agriculture.

B. GREAT LAKES: p.14, *Recommendation #10*

The fishery industry's ability to recruit and maintain competent employees is adversely affected by the inadequacy of benefits to workers for personal injury, health services, hospitalization and retirement. Where insurance coverage is available the costs are prohibitively high. Legislation similar to H.R. 9716 introduced into the First Session, 94th Congress, "Vessel Safety and Fishermen's Benefit Act of 1975", needs to be enacted to provide for a viable fishing industry and to assure fishermen of safe and healthful working conditions.

C. GULF (SUMMARY): p.2,11, and 17, *Insurance*

The Jones Act should be amended to allow liability coverage for crew members only when actually aboard or unloading a vessel. Boat owners, their associations and insurance companies should have the option to file countersuits against the plaintiffs and their lawyers for claims which were unproven or fabricated.

The public health benefits extended to crews of registered vessels are discriminatory. Such benefits should be extended to crews of all vessels which operate and are licensed as commercial fishing vessels.

A voluntary vessel inspection program should be instituted and vessels rated by the USCG for

insurance and safety purposes. The ICC or similar regulatory agency should examine current insurance rates for vessels and regulate these rates consistent with the insurance rating class instituted by the USCG. On board safety criteria should be developed by the USCG.

Caribbean area: Insurance with moderate rates should be afforded by the government for qualified fishermen and fishing vessels.

D. PACIFIC: p.6, *Vessel Financing and Insurance (Bait and Jig Boat)*

The Longshoremen's and Harborworkers' Act has caused liability insurance coverage rates to increase beyond affordability. Insurance rates should be based on the specific type/size of boat and its respective accident rate. Further, all boat operators should be required to pass an examination to obtain a boat operator's license, since this would result in lower liability insurance costs generally. The Longshoremen's and Harborworkers' Act should be amended to include an "assigned risk" clause to reduce the cost of liability insurance coverage.

E. PACIFIC: p.51, *Compliance with National Standards (Salmon)*

The Longshoremen's and Harborworkers' Act applying to all operations on the waterfront and requiring liability insurance for all employees of waterfront operations has serious consequences for the commercial fishing industry. Since there is no liability ceiling established by that Act, waterfront activities either cannot get insurance or the cost of such insurance is prohibitive. Congress should amend the Act by exempting from it any commercial fishing activity or support activity, including but not limited to fish house and boat yards. If Congress fails to amend the Act as requested, then they should appropriate sufficient funds to subsidize the insurance costs for compliance with the Act so that the fishing industry and its support facilities are able to obtain liability insurance.

F. PACIFIC: p.69, *Vessel Financing and Insurance (Trawl)*

Congress should be made aware of the insurance problem in the fishing industry. Hull insurance rates are prohibitive and there is no reasonable limit to liability in event of an accident aboard a vessel. The provision of the Jones Act regarding this matter should be reviewed. Often a single insurance company will not insure a vessel for its entire value, requiring the vessel owner to hold several insurance policies in order to insure the vessel for its full amount. The Federal Government should establish criteria that would allow older vessels in good condition to qualify for more reasonable insurance rates. Rates should be based on the condition of the vessel, not its age, since age does not necessarily reflect condition. In addition, restrictions placed on the formation of insurance pools and self-insuring plans should be removed.

G. PACIFIC: p.75, *Other Assistance to Processors (Processing)*

The Longshoremen's and Harborworkers' Act requiring liability insurance for all employees of waterfront operations is the cause of much concern among processors. Since no ceiling to liability is established by this Act, it is difficult to obtain liability insurance at a reasonable cost. Congress should review this Act and make appropriate changes that would prevent undue hardship on the fishing industry.

H. PACIFIC: p.82, *Vessel Financing and Insurance (Hawaii)*

Amendment of the Jones Act to allow purchase of foreign-built vessels would help reduce the high cost of vessels . . .

52. A. PACIFIC: p.24, *Vessel Safety (Pot)*

All agree that vessel safety is extremely important, yet most do not favor the establishment of federal standards concerning safety. In particular, the Occupational Safety and Health Administration is criticized for its intervention in fisheries matters. OSHA should limit their activities to industries where accident rates are high, rather than imposing unrealistic regulations on the fishery industry. Alaska fishermen emphasized that the Alaska Fisheries Safety Advisory Council is presently handling such matters effectively and should take the lead role in establishing any safety regulations for that area.

The Federal Government should concentrate on circulating useful vessel safety information to fishermen, such as evaluation of the quality of various survival suits and resultant recommendations.

B. PACIFIC: p.30, *Vessel Safety (Market)*

Low priority is placed on federal regulations of vessel safety. Compliance with such regulations often requires the fishermen to pay unreasonable sums of money.

C. PACIFIC: p.53-54, *Boating Operation and Safety (Salmon)*

Recreational fishermen stated that due to the number of drownings in boating accidents, there is a great need for safety education, especially for the "weekend" boater. The Federal Government should make it a policy to supply free literature to the states and general public pertaining to boating safety. There is particular concern that boaters be educated on the availability and qualities of the various life preserving devices, e.g., life jackets and overalls which are insulative as well as buoyant. Remedial action should be taken to penalize boating law offenders.

Commercial fishermen strongly oppose regulations of the Occupational Safety and Health Administration which apply to commercial and charter vessels. The U.S. Coast Guard should be responsible for vessel safety and inspection because of its greater knowledge of the fishing industry. The industry and Coast Guard should work together to develop appropriate guidelines for vessel safety.

D. PACIFIC: p.70, *Vessel Safety (Trawl)*

Other than establishing standards on vessel construction and requiring fire control devices, the Federal Government should not be involved in vessel safety. Particularly regulations of the Occupational Safety and Health Administration are not needed in the fishing industry, since such regulations are often unrealistic and too restrictive. If restrictive government regulations are imposed on the existing fleet or new vessels, grants-in-aid should be available to cover costs of compliance with regulations. Any additional safety regulations should be generated by the industry and the Coast Guard cooperatively.

For safety purposes, all vessels should be required to monitor a specified VHF frequency. In addition, commercial vessel traffic lines should be established in areas away from traditional fishing grounds to minimize the danger of collision with fishing vessels.

E. PACIFIC: p.74, *Regulations (Processing)*

Establishment of new regulations as well as implementation of existing regulations must necessarily involve input from industry. The Federal Government should supply technical and financial assistance to help processors comply with guidelines established by such agencies as OSHA, EPA, EEOC, and FDA. Generally, the seafood industry is composed of small entities which find it financially and technologically difficult to comply with many regulations. Existing regulations should be reviewed and made more applicable to the fishing industry.

F. ATLANTIC: *Recommendation #8*

Safety requirements should be developed by the Coast Guard with the cooperation of the fishing industry.

It was recommended that safety requirements be developed and administered by the Coast Guard and industry, not the Occupational Safety and Health Administration (OSHA) or the National Marine Fisheries Service (NMFS). Placing fisheries safety jurisdiction under the Coast Guard would remedy contradictions in existing law. OSHA should not regulate maritime activities aboard vessels and should be restricted to shoreside activities involving 10 or more full-time employees. It was stated that maritime safety legislation is not required at this time.

53. PACIFIC: p.56, *Maintenance of Processing Standards for Personnel Safety and Plant Sanitation (Salmon)*

This activity is a function of the industry. Regulations of the Occupational Safety and Health Administration should not apply to fish plants. Additionally, handling of fish should exempt from the Longshoremen's and Harborworkers's Act.

54. A. GREAT LAKES: p.12, *Recommendation #6*

... Improvement in harvest technology is urgently needed to increase the productivity of Great Lakes commercial fisheries and to permit fish from the Great Lakes to compete in the market with those produced from other United States and foreign waters.

... There is a real need to develop improved harvest technology for fishermen who are relatively small producers.

B. GREAT LAKES: p.13-14, Recommendation #9

Establishment of a financial and technical assistance program for construction or modernization of fish processing facilities.

With the present depressed state of industry in the Great Lakes, technical and probably financial assistance will be required to provide for the development of needed processing facilities.

C. GULF (SUMMARY): p.8, Research Needs

... The Sea Grant Program would serve the national interest better by directing a major portion of its program to production of food from the sea and those areas of activities related to this production. The expertise housed in the university systems is needed to solve many of the problems facing the commercial and recreational fishing industries ...

D. GULF (SUMMARY): p.18, Sea Grant Program

Caribbean area: The Sea Grant program of universities should be focused more on the increase of food production from the sea and inland waters. Funding for fisheries has been inadequate to date. Fisheries have been the poor brother to Agriculture. Greater funding for resolving fisheries problems is needed from the federal and commonwealth governments.

55. PACIFIC: p.38, Government Regulations (Aquaculture)

... The excessive number of agencies and their respective regulations effectively limit the ability of aquaculture ventures to produce food and also discourage the development of new aquaculture development enterprises. A federal program is needed to assist commercial ventures through the maze of government agency requirements and restrictions. There also is a need to alleviate conflicting and/or arbitrary requirements at the federal, state, and local government levels. It is feared that the present permit system will limit participation to only the largest corporate entities. A long-term solution to this problem would be the creation of a single federal agency which would be responsible for administering aquaculture regulations and designating areas suitable for aquaculture. Some disagreement exists as to the Department to which this aquaculture agency should belong. While some opt for an agency under the Department of Commerce influenced by joint representation of the National Marine Fisheries Service, the Office of Sea Grant and industry representatives, others feel that aquaculture control should be placed under the jurisdiction of the Department of Agriculture, where participants might take advantage of benefits presently extended to farmers.

56. A. GULF (GSRI): p.227, Federal Agencies

... Representatives of the Sea Grant Program and the LSU Cooperative Extension Service stated that it would be desirable: (1) for responsibility at the federal level to be defined more clearly; or (2) for one federal department to be given responsibility for the aquaculture industry, which would include crawfish.

B. GULF (GSRI); p.238, Capital and Operation Costs

... (Aquaculturists) state that operating costs are still too high. They expressed a need for long-term, low-interest loans provided by the Federal Government to support expansion. Loans are available through the Federal Land Bank, but ... land must be put up as collateral (and the Land Bank discounts 20 percent of the acreage for levees. (It was) stated that the current Federal Land Bank interest rate (nine percent) is too high and should be lowered.

C. GULF (GSRI): p.240-241, Research Needs

... People ... stated the need for an improved breed of catfish that would result in more useable meat after processing ... Research is also needed in the areas of water quality, chemicals, and disease control.

People associated with the (aquaculture) industry expressed a need for more coordination or the establishment of one agency that would be responsible for the aquaculture industry.

D. PACIFIC: p.36-37, *Research and Development (Aquaculture)*

Aquaculture research and development should receive high priority by the Federal Government in terms of funding and programs. Federal aid in research and development can be of immense assistance . . . (but,) provisions should be made to assure that the aquaculture industry has an effective voice in the direction of Sea Grant and other federal aquaculture research efforts.

Further, it would be most beneficial if Sea Grant colleges could provide the same sort of consultative services and assistance to the aquaculture industry that the Land Grant schools have to agriculture. . . .

Specific research programs on the following aspects of aquaculture should be emphasized; genetics, nutrition, larval development, stock improvement, pathology, and economic and legal aspects . . . Suitable areas should be set aside for aquaculture utilization in the future . . . As a final note, the impact of aquaculture projects on natural resources should be carefully evaluated before funds are provided for further development of this activity, in order to prevent damage to those resources.

E. PACIFIC: p.39, *Processing (Aquaculture)*

Federal assistance is needed in developing new oyster products and markets.

Standards and acceptable methods for efficient purification programs for marginally contaminated shellfish should be developed by the Federal Government.

57. A. GULF (SUMMARY): p.10, *Pollution Control*

Rather than developing "blanket" classifications for regulating effluent discharges, EPA should examine the effluent discharges, on a case by case basis and evaluate them regularly and accumulatively as to their effects on the ecosystem.

B. PACIFIC: p.39, *Government Regulations (Aquaculture)*

Effluent standards should not be imposed on the aquaculture industry without consideration of both biological impact on the local environment and the economic impact of these standards on the industry. Water quality requirements must be realistic and Environmental Protection Agency guidelines should differentiate between biological waste materials natural to estuarine systems, for which the oceans have a carrying capacity, and toxic industrial wastes. If it is impossible to differentiate between standards imposed on aquacultural industry and the oil industry regarding effluent discharge criteria, then federal subsidization of water quality control facilities is in order.

8. A. GULF (SUMMARY): p.12, *Safety*

OSHA rules and regulations should be revised to accommodate each separate class of industry shop. In formulating these rules OSHA officials should use advisory panels from that particular industry. For example, advisors from the menhaden industry should help draft the regulations necessary to insure employees safety and health within their particular type of operation . . .

B. GULF (GSRI): p.104-105, *Pollution Control*

The Environmental Protection Agency standards for waste disposal have affected plant operations within the seafood industry . . . (and) are raising costs appreciably and forcing the industry to look into the development of products from wastes.

Currently EPA's responsibility lies within the area of promulgation and enforcement in accordance with uniform, adopted codes, and there are no provisions in the guidelines for exceptions . . . Since Congress is presently considering amendments to the Federal Water Pollution Control Act of 1972, it may be that a greater latitude of discrimination will be allowed to the EPA in the future. In this case, it would be necessary to determine the exact effect of seafood plant discharges in the light of tidal regimes, quantity disposed, consumption by fauna, and other factors.

C. PACIFIC: p.83, *Processing (Hawaii)*

There was concern expressed over the large number of standards placed on fishery products,

causing increased prices to the consumer as a result of increased costs to processors. The Federal Government should provide assistance to processors to help them comply with new regulations. . . .

A. GREAT LAKES: p.15, *Recommendation #11*

Increase in extension, research, development and Sea Grant activities applicable to recreational and commercial fishing.

(In) Michigan, Wisconsin, New York, Minnesota and Ohio . . . (work) . . . directed at: protection of wetland and estuarine areas; development of access facilities; improved marine management; promotion of sportfishing; development of selective gear for commercial fishing . . . is financed, at least in part, under the Dingell-Johnson Act, Sea Grant, Anadromous Fish Conservation Act, or the Commercial Fisheries Research and Development Act. These federal programs have contributed significantly to fisheries research and development in the Great Lakes and should be adequately funded to provide the additional services needed for improvement of the fisheries.

B. GULF (SUMMARY): p.6, *Resource Allocation*

Recreational and commercial catch data must be obtained for specific water areas simultaneously. NMFS must make additional funds available for work dealing with recreational fisheries and greatly expand their commercial fisheries program. Requests for strengthening the statistics programs of NMFS have been made for years but at the same time NMFS showed indications of reducing their role in the program and turning it over to the states which do not have funds or personnel for the program.

Studies should be conducted by state and federal agencies on species subject to local controversies between recreational and commercial fishermen.

C. PACIFIC: p.43-44, *Equitable Allocation (Recreational)*

. . . Recreational fisheries are believed to be important economically, not only to coastal communities, but to those inland as well. Considering the value of recreational fisheries, Congress should make a more substantial effort to contribute to their enhancement. . . .

Recreational fishermen stress the importance of forage fish to the recreational fisheries and are concerned about the emphasis placed on forage fish as a commercial reduction product. . . .

D. NATIONAL PLAN: p.11, *The Growth of Marine Recreational Fisheries*

. . . The numbers of marine recreational fishermen increased from 4.8 million (1955) to 9.5 million (1970) . . . Marine fishing activity rose in the same period, from 58 to 114 million angler days. The 1970 catch of 1.6 billion pounds was equal to about two-thirds of the total U.S. food fish catch in the same year . . . Marine angling not only provides recreation and food, but contributes substantially to the economy . . . direct expenditure of marine anglers for goods and services totaled \$1.2 billion (\$130 per angler) in 1970. To this \$1.2 billion could be added \$1.5 billion in primary economic benefits resulting from marine recreational activities, a total of 2.7 billion.

60. A. PACIFIC: p.85, *Fisheries Management (Hawaii)*

Participants request that federal funds (Dingell-Johnson) be appropriated for a fisheries management area study. They recognize two alternative management procedures: area closures and species allocation.

The diversity of the Hawaiian fish fauna makes effective conservation and management practices difficult. The amount of funds and manpower required to obtain data to effectively manage about 500 species of fish is tremendous. Management problems have increased in time due to increased fishing pressure (as a result of more people with more leisure time), greater mobility of the fisherman, and better equipment. . . .

B. ATLANTIC: *Recommendation #4*

No saltwater sportfishing licenses should be required unless certain criteria are met.

It was suggested that sportfishing licenses should be species specific, or should be confined to a limited group of species. The licenses should be similar to those issued for hunting. Licenses

should be issued at the state or regional level. Money derived from licensing should be used to provide access to fishing areas, and for research and maintenance of the licensed species. An advisory group should participate in the administration of such funds. If possible, such funding should be under the auspices of the regional councils created by P.L. 94-265.

61. A. GREAT LAKES: pp.8-9, Recommendation #1

Early implementation of comprehensive resource assesment to provide information for total resource management.

Adequate assessment of the status of fish stocks on a timely basis is essential for effective management of the fisheries and to permit meaningful evaluation of the effects of various stresses on these stocks. . . Considerable assessment work has been and is being done by the Federal Government through the Fish and Wildlife Service and by several of the states. In most instances, such assessments have been undertaken in response to a catastrophic decline in a given fish stock in an attempt to understand and remedy the situation.

A comprehensive program for assessment of important fish stocks which will provide on a year-to-year basis the information needed for management is a prerequisite for improvement of the fisheries of the Great Lakes. The Fish and Wildlife Service and the states, together with the Canadian agencies where appropriate, should develop and carry out a coordinated assessment program. This will require additional staffing, equipping and funding of the federal and state agencies involved.

B. GULF (SUMMARY): p.7, Statistics Needs

Commercial statistics need to be greatly expanded to provide catch/effort, size, and other data presently available only for shrimp. Recreational fishery statistics are almost non-existent and available data are mostly questionable.

C. PACIFIC: p.44 Stock Assessment and Data Collection (Recreational)

More federal funds should be allocated for research purposes to determine the optimum yields of all fisheries. Federal funds are also needed for research on the importance of pelagic forage fish to the marine ecosystem.

The Federal Government should provide funding to the states for research on anadromous fish that are important to inland recreational fisheries (e.g., striped bass, shad, steelhead). . . In addition to these studies, there is a need for research on noncommercial marine species, such as hake, as well as studies on the relationships between fish species and their habitats. . . .

D. PACIFIC: pp.84-85, Fisheries Management (Hawaii)

Hawaii should receive federal assistance to extend its investigations on the recreational fisheries, since tourism and big-game fishing are of national recreational importance.

Most of the activities concerned with management of recreational fisheries resources should be given high priority. Federal assistance to establish research projects on inshore stocks is essential, since general baseline data are lacking. Federal funding should be solicited for studies on the oceanic phase of reef fish life cycles. A need exists for more knowledge of bottom-dwelling species. Archipelago-wide regulation and management is essential, and all shoreline areas in the state should be considered prime recreational areas. The use of fees or licenses as an additional source of funding for recreational research and management is supported.

62. A. GREAT LAKES: pp.9-10, Recommendation #2

Creation of institutional arrangements that will make possible effective management is another major need. At present there are 30 or more governmental units within the United States and Canada which have strong and more or less independent influences on fisheries research and management in the Great Lakes. In addition, there are a number of agencies, not directly involved with the fisheries, which may, through the exercise of their responsibilities, affect the fisheries. On the basis of experience gained in bilateral and multilateral agreements for the management of marine fisheries and the experience that is being gained in management of marine fisheries under The Fishery Conservation and Management Act of 1976, efforts should be made to develop improved institutional arrangements for management of Great Lakes

fisheries. Cooperation of Federal Governments of the United States and Canada and the state and provincial governments will be needed to accomplish this objective.

B. GULF (SUMMARY): p.7, *Communications and Cooperation*

Additional mechanisms should be developed to improve communications between constituency groups and the state and federal regulatory agencies.

C. PACIFIC: pp.50-51, *Cooperative State/Federal Management with Effective Constituency Input (Salmon)*

Participants are especially concerned over the existence of multiple management entities with jurisdiction in fisheries matters which has in part contributed greatly to mismanagement of salmonid resources on the Pacific Coast. Fisheries management within each state should be maintained under a single management entity. Waters outside the states jurisdiction or overlapping one or more states should be managed on a regional basis. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should merge to economize, minimize duplication of programs, and coordinate management efforts.

There is presently a general lack of communication and coordination among state and federal agencies which has been responsible for overall degradation of anadromous fish resources. For example, in the State of California, the Bureau of Reclamation water projects are often in conflict with policies of the California Department of Fish and Game, which results in a loss of management effectiveness by that body. . . .

Participants emphasized the need for user group input, especially regarding food fish stocks. Increased communication between the user groups and the agencies could restore confidence in agencies having jurisdiction. All common user groups (users of salmon stocks) should unite to provide advice to the Regional Fishery Management Councils on rules (probably via the Advisory Panels mandated in the legislation.) Additionally, user groups must be able to provide significant input into the selection of future members of the Regional Fishery Management Councils.

63. A. PACIFIC: pp.47-48, *Ensuring Adequate Angler Access to Shoreline Waters and Fish (Salmon)*

Recreational fishermen concur that adequate physical access is extremely important. Wherever possible, lineal easements along streams and adequate access corridors leading to water bodies and reserves around them should be retained in public ownership. Where not already available, such rights of way should be purchased wherever feasible. Access to public lands should not be restricted by fee, lease, or allotment. This principle should be statutory with respect to both federal and state ownerships. Whenever sale or exchange of public land is considered, angler access potentials should be subject to review by the fishery agency concerned. Similarly, when road or other improvements are designed there should be adequate consideration given to angling access, parking and other facilities where appropriate.

Currently, some of the more pressing problems exist in the State of Alaska where vast areas are in the process of transfer from federal to other ownerships. Retention of public access across private lands and Alaskan native lands to public waters is vital. Federal land policies related to federally controlled areas in Alaska can seriously affect angler access and it was urged that in the future such policies should take into consideration recreational fishermen. The restricted use of outboard motors on large lakes within federal lands where such motors are necessary for transportation is an example. This restriction limits the use of these areas for anglers. Roads into remote areas can lead to resource depletion in instances where conservation is difficult. Roads provide access for anglers who cannot afford to fly, therefore some well-considered road construction should be supported. Access must be controlled by regulation and enforcement to prevent depletion of fish populations. Participants support the use of federal funds for installation of public facilities at major access points.

Traditionally, the recreational fisherman's interests have not been adequately considered. Federal policy should include angler access to federal lands and review authority should be extended to the states in all situations involving the transfer or sale of federal lands. Representatives from several states cited instances where access problems were frequently complicated in the granting of federal grazing allotments.

B. PACIFIC: pp.104-107, Policy Statement (Island Territories)

The waters off most Island Territories contain fishable populations of highly popular sport fishes—billfish, tuna, mahi-mahi, and many others normal to tropical waters. Land-based recreational opportunities for visitors to these islands are relatively limited. Safe and convenient access to offshore sport fishing could add materially to the attraction of the islands for tourists, and thus significantly increase the dollar contribution of tourism to the island economy. Again in the interest of island self-sufficiency, this should be a high priority American objective.

Encouragement of recreational fisheries requires many of the same processes and developments as for commercial fisheries, which need not be repeated here. It should be emphasized, however, that those interviewed on Guam particularly stressed the need to remove governmental inhibitions upon development of the charter boat services required. They cited Jones Act requirements that commercial fishing vessels over five net tons must be of U.S. construction (cf. discussion, Sec. 2a, p.96). Charter vessels of a size suitable for safe and comfortable use are subject to this provision, and Guamanians insist that the enormous costs of hull transportation from the United States makes them prohibitively expensive—as much as ten times the cost of equivalent hulls from Japan or Taiwan.

Guamanians also stressed the need to develop more adequate berthing and service facilities for all phases of commercial fishing operations, including recreational charter vessels. They urged that the Navy proceed at once with very slow-moving plans to relocate ammunition off-loading facilities and thus free a portion of Apra Harbor for this needed commercial docking development (cf. earlier recommendation for coordination of federal agencies, p.93).

For all the Island Territories, enhancement of recreational fishing opportunities and development of requisite services merits full and careful consideration.

64. A. PACIFIC: p.24, Navigational Aids (Pot)

The period of transition from LORAN A to the LORAN C system should be extended. The Federal Government should provide LORAN C charts immediately and these charts should reflect the changes created by earthquakes. More large-scale maps are required for off shore areas and charts need to be updated continuously. The U.S. Coast Guard should increase its surveillance and removal capabilities for navigational hazards such as deadheads and sunken logs. The Coast Guard should also provide the funds to equip their vessels with modern electronic equipment (LORAN) to enable them to locate distressed vessels more efficiently.

B. PACIFIC: p.30, Navigational Aids (Market)

Participants assigned high priority for Federal Government assistance to improve navigational aids such as charts, buoys, and LORAN systems.

C. PACIFIC: p.54, Navigational Aids (Salmon)

The Federal Government should provide sufficient funds to extend the LORAN A and AM marine radio/telephone programs for at least five years after the LORAN C program is initiated. This will allow fishermen to move gradually to LORAN C without suffering undue financial strain. Since new navigational equipment is mandatory, low-cost loans should be made available for its purchase. For convenience, LORAN A and C grids should be overlaid on the same chart. Participants urged that freighter and other commercial vessel traffic zones be established, with consideration for productive fishing grounds, to minimize accident risks for fishermen. Shipping routes and maximum navigational speeds within traditional fishing grounds should be fixed and enforced by the Coast Guard. Public hearings should be held to allow input by fishermen before routes are established.

Recreational fishermen emphasize that a high priority should be placed on the establishment of markers and buoys for reefs hazardous to recreational boaters. Emergency radio services are badly needed as well as current weather, ocean, and bar condition reporting and forecasting. Additional federal funds should be appropriated for this urgent need.

Radio stations in Alaska should be required to revert back to UHF transmission because of the long distances often involved between transmitters and receivers.

D. PACIFIC: p.70, *Navigational Aids (Trawl)*

... The navigational charting system in the Gulf of Alaska is inferior, and there is a need for up-to-date large-scale charts for offshore areas with appropriate LORAN A and C grids printed on them. In addition, many bays in Alaska have not yet been charted and the Federal Government should make an effort to see that this problem is corrected. Puget Sound fishermen stressed that it is critical that LORAN C charts be made available for Puget Sound waters at the same time they are available for ocean waters.

65. PACIFIC: p. 4, *Restore, Maintain, and Enhance Fisheries Habitats and Stocks (Tuna)*

The Inter-American Tropical Tuna Commission, established in 1950 to investigate the status of yellowfin and skipjack tuna of the Pacific Ocean, represents the best means of maintaining tuna stocks. However, the IATTC regulatory area is confined to certain areas in the Eastern Pacific, and the U.S. tuna fleet reacts to regulations by shifting their effort to the Western and Central Pacific and the Atlantic. The importance of the International Commission for the Conservation of Atlantic Tunas and of efforts to establish new international organizations which would regulate fishing in the Western and Central Pacific is recognized.

66. PACIFIC: p. 4, *Harvest Rights and Access (Tuna)*

The Fishery Conservation and Management Act of 1976 (P.L. 94-265) is harmful to the U.S. tuna fleet as other nations will interpret the Act as giving them complete jurisdiction over conservation zones, including tuna which is specifically exempted from the Act. The enactment of P.L. 94-265 may force domestic tuna processors to rely on foreign tuna suppliers. Passage of P.L. 94-265 will be harmful to settlement of disputes by negotiations, since the U.S. no longer will have basis for argument against extended jurisdiction. Participants feared the result of P.L. 94-265 will be that the U.S. tuna fisherman will not be allowed access to traditional tuna fishing areas and that improper conservation and utilization of tuna resources may follow.

It must be emphasized that the future of the American tuna industry rests with the Department of State and their ability to negotiate access to foreign waters. Congress should assist the State Department and the industry in making these negotiations effective.

67. A. PACIFIC: p. 24, *Navigational Aids (Pot)*

Participants generally concurred that the period of transition from LORAN A to the LORAN C system should be extended. . .

B. PACIFIC: p. 54, *Navigational Aids (Salmon)*

It was recommended that the Federal Government provide sufficient funds to extend the LORAN A and AM marine radio/telephone programs for at least five years after the LORAN C program is initiated. This will allow fishermen to move gradually to LORAN C without suffering undue financial strain. Since new navigational equipment is mandatory, low-cost loans should be made available for its purchase. It was also suggested that for convenience LORAN A and C grids should be overlaid on the same chart. . .

C. PACIFIC: p. 61, *Weather Forecasting/Navigation (Charter)*

The group urged Congress to intervene to extend the period of transition from LORAN A to LORAN C from 18 months to at least 5 years. . .

D. PACIFIC: p. 70, *Navigational Aids (Trawl)* .

Fishermen input in affairs relating to navigational aids is necessary before decisions are made by government. The instigation of the LORAN C system which requires all mariners to purchase new navigational equipment was enacted without major input on the part of the industry. Fishermen urged that the transition period from the LORAN A to the LORAN C system should be extended to a period of five years, and both the LORAN A and C bearings should be printed on the same chart to facilitate transition. . .

68. A. PACIFIC: p. 55, *Rescue (Salmon)*

... It was suggested that Congress appropriate more money to the Coast Guard to improve their

lifesaving capabilities. U.S. Coast Guard search and rescue vessels should be equipped with modern navigational equipment. . .

B. PACIFIC: p. 71, *Rescue Services (Trawl)*

Federal programs supporting rescue activities are insufficient at this time. Such activities should be reviewed by the Coast Guard and the fishing industry regarding adequacy. The Coast Guard should receive sufficient funding to enable them to use modern navigational equipment in place of the antiquated gear presently used, so that they can more effectively detect and locate distressed vessels. The Coast Guard should employ Autoaquisitional, Autostract, and Autocycle LORAN C, and where appropriate, Autotract LORAN A until such equipment is phased out. Congress should ensure that the Coast Guard utilize the best electronic equipment available, compatible with equipment used by the fishing industry.

C. PACIFIC: p. 83, *Rescue (Hawaii)*

Participants stressed that radio communications between fishermen and the Coast Guard should be improved and that the Coast Guard should become familiar with local landmarks familiar to local fishermen so that location of distressed vessels would be simplified. To improve communication, the group felt that Coast Guard vessels should be equipped with Citizens' Band (C.B.) radios as well as VHF communication devices, since most fishermen utilize C.B. radios. It was further recommended that an easy-to-understand but effective format be established for communication, so that Coast Guard aid can be obtained quickly and easily in emergency situations. Faster emergency medical service was also supported. The group added that if fishing vessels in Hawaii were more modern and safer, Coast Guard rescue services could be minimized.

69. A. PACIFIC: p. 25, *Marine Weather Forecasting (Pot)*

Participants coastwide placed very high priority on updating and improving marine weather forecasts. The following recommendations were made:

- a. More accurate regional forecasting is needed.
- b. There is a need to use information from the fishing fleets for weather reporting and forecasting purposes.
- c. Radio bands 2182 and 2670 should be utilized more for transmitting weather forecasts.
- d. Improved detection methods for wind velocity and temperature are needed.
- e. More extensive coverage is needed to fill blind spots in the VHF weather advisory.
- f. Satellite information should be supplemented with more surface data from ships at sea.
- g. There is a need to establish standard radio frequencies for weather forecasts.
- h. More offshore weather buoys are needed.
- i. More people should be contracted to increase the capability for weather reporting.

B. PACIFIC: p. 30, *Marine Weather Forecasting (Market)*

There was consensus that marine weather forecasting should be improved so that fishermen might receive up-to-date weather information. In addition, there was considerable support for the development of long range forecasts.

C. PACIFIC: p. 54, *Marine Weather Forecasting (Salmon)*

Participants requested that marine weather forecasts from coastal stations be updated at least 4 times daily over the full 24-hour period. They also stressed the need to maintain offshore weather buoys to monitor conditions offshore since coastal stations often are incorrect in forecasting offshore conditions. The group also emphasized the need for more extended weather forecasts, that is, weather reports should include forecasts of weather systems at least 24 hours in advance of their arrival. The group strongly emphasized the need for services provided by the lightship off the mouth of the Columbia River and argued that it must be maintained as an operating unit at all costs. In general, all facets of marine weather forecasting should be upgraded immediately, as this is a vital service to the commercial and recreational fisheries.

D. PACIFIC: p. 71, *Marine Weather Forecasting (Trawl)*

General improvement of ocean weather reporting and greater utilization of weather reports from ships and fishing vessels at sea is needed. An increase in the frequency and accuracy of weather reports to provide better more up-to-date information is desirable. Further, blind spots in the VHF weather advisory on the West Coast and in Alaska should be eliminated.

70. A. PACIFIC: p. 30, *Compliance with National Standards (Market)*

Participants expressed concern over the provisions of the Marine Mammal Protection Act which prohibit rational management of marine mammal resources. They noted that the predatorial effects of seals and sea lions on fish resources can be considerable, and requested that control of such predators be permitted.

B. PACIFIC: p. 51, *Compliance with National Standards (Salmon)*

The Marine Mammal Protection Act of 1972 has caused considerable concern among commercial and recreational salmon fishermen. Participants agreed that marine mammal populations should be managed wisely on a rational ecological basis, just as any other important resource is managed. They recognized that absolute protection of marine mammals is unwise where predatory species have the potential to produce significant mortalities of salmon and steelhead. Commercial, recreational, and charter boat interests support an amendment of the Act to allow reasonable control of such predators. They stated that this could be accomplished by extending the authority to manage marine mammals to local or regional management entities.

C. PACIFIC: p. 67, *Compliance with National Standards (Trawl)*

The Marine Mammal Protection Act of 1972 should be amended to make it more realistic and flexible under special circumstances, for instance, to allow control of marine mammal populations which, by their predatory actions, may cause significant damage to fish stocks.

71. A. PACIFIC: p. 23, *Fishing Vessel Design and Construction (Pot)*

... Those in favor of some federal support emphasized that new vessel designs are often inadequate due to insufficient testing under a variety of load and weather conditions. They recommended that the Federal Government establish shipbuilding standards and that the U.S. Coast Guard regulate vessel construction according to those standards. Shipyards should provide vessel owners with operating manuals to inform the owners of their vessels' capabilities under a variety of conditions. . .

B. PACIFIC: p. 68, *Fishing Vessel Design and Construction (Trawl)*

The Federal Government should not be involved in vessel design and construction, however, stability and loading trials should be required before federal documentation of new and reconstructed vessels and subsequent release to the owner. The lack of such trials has resulted in additional insurance costs to owners.

72. A. PACIFIC: p. 52, *Compliance with National Standards (Salmon)*

Commercial fishing interests stressed that Congress should investigate the legality of trade agreements between the United States fish processors and foreign competitors, as well as foreign ownership of processing companies within the United States.

B. PACIFIC: p. 66, *Harvest Rights and Access (Trawl)*

Investments of capital in American shore-based processing plants which process fish caught by American fishermen should be encouraged through the use of tax incentives. Foreign investment should be limited to shoreside facilities utilizing U.S. labor and markets wherever possible. Further, the process whereby domestic fishermen sell their catch to foreign processing operations at sea, who in turn deliver this product to domestic markets, should be carefully reviewed and analyzed.

C. PACIFIC: p. 75, *Other Assistance to Processors (Processing)*

Congress should encourage through tax incentives investments of capital in American shore-based plants which process fish caught by American fishermen. Foreign investment should be limited to shoreside facilities utilizing domestic labor and serving domestic markets wherever

possible. Further, agreements whereby domestic fishermen sell their catch to foreign operations at sea, who in turn deliver their product to U.S. markets, should be carefully reviewed and analyzed.

73. A. PACIFIC: p. 7, *Harvest Rights and Access (Round-Haul)*

Participants discussed entry limitation as a management concept and agreed that limited entry should be studied by the Federal Government. They suggested that alternative limited entry plans for the herring fishery be provided to industry for review and input prior to reaching a final decision.

B. PACIFIC: p. 22, *Harvest Rights and Access (Pot)*

Some Dungeness crab fishermen recommended that a license limitation program be implemented for their fishery. It was suggested that fishing licenses be issued only to bonafide commercial fishermen (as defined by specified number of pots) and that only one be issued to one man to avoid inequitable distribution of licenses. It should be noted that the majority of Dungeness crab fishermen oppose effort limitation at this time.

C. PACIFIC: p. 49, *Allocation of the Resource Including Effort Limitation (Salmon)*

In any fishery where demand exceeds supply, mechanisms for limiting effort come under consideration. For commercial fisheries built upon the free enterprise system, attention recently has focused on problems of overcapitalization and therefore a possible need for some form of entry limitation. Salmon fisheries are subject to some form of control on entry within several Pacific coast jurisdictions (British Columbia, Alaska, and the State of Washington). Eastland Fisheries Survey participants remain sharply divided in their views of the effectiveness of those programs and of the overall desirability of limited entry programs. Clearly much of this division stems from lack of clarity concerning alternatives. All concerned recognized the need for more adequate and understandable assessment of the problem and presentation of alternatives for solution. Particularly since the National Standards mandated by P.L. 94-265 call for promotion of efficiency in the utilization of fishery resources, Eastland Fisheries Survey participants urged a thorough and careful study of limited entry as one of the tools for fishery management. Particular attention should be given to potential gainers and losers under various alternative systems, and procedures for equitable resolution of problems. These studies must be relevant to the practicalities of fishing operations, and therefore must include effective input from the fishing industry.

D. PACIFIC: p. 60, *Fisheries Management (Charter)*

The group felt that a limited entry program was not needed at this time in the charter industry, since limitations on the number of passengers and fish per passenger are already in effect.

E. PACIFIC: p. 67, *Harvest Rights and Access (Trawl)*

The rights to common property fisheries stocks (especially trawl species) shall not be auctioned or sold as private property. There should be no government advocacy of limited entry at this time in the trawl fisheries. Any consideration of entry limitation should be based on conditions of biological crisis and/or economic chaos. It is recognized that entry limitations in one fishery may have large effects on another. Moreover, it is worth noting particularly that the trawl fisheries are self-limiting because participation requires a large initial investment and considerable skill, and because present market conditions prohibit substantial development of this fishery. Any consideration of a limited entry scheme must include industry input from the outset.

74. A. PACIFIC: p. 55, *Nonextractive Uses of the Resource (Observation and Study) (Salmon)*

The nonconsumptive uses of fish resources constitute a rapidly growing segment of public interest that is producing an economic return far beyond the simple food value of the marine animals involved. Several million people allocated a good portion of their recreational time and budgets to view some portions of a fish's life cycle. The phenomenon of fish on their spawning grounds, and at viewing windows installed in fish ladders at locations such as Bonneville Dam, is a very valuable educational experience. This interest not only generates a most popular educational benefit, it also creates a favorable public image to support

management of the resource. Certainly, this activity should have consideration as a factor in fisheries management.

B. PACIFIC: p. 85, *Nonextractive Uses (Hawaii)*

The group felt that a shift in attitude toward non-consumptive use of the resources should be encouraged to aid conservation. They recommended that underwater parks for photography and fish identification be promoted as opposed to spearing fish and collecting shells. . .

75. PACIFIC: p. 92, 94, *Consolidation and Effective Coordination of Federal Agency Relationships*

The United States holds economic and political stewardship over the island Territories, and for both practical and moral reasons, should seek to enhance in every way possible their social and economic self-sufficiency. Toward that objective, the national fisheries policy of the United States should include firm commitments to augment the level and diversify the application of support for island fisheries conservation and development. . .

. . . Coordination and consolidation of federal agency impacts, services and functions ideally should involve unification of responsibilities at present widely separated under the Departments of Commerce and Interior; also it would require an active and effective liaison with the Department of Defense to facilitate reasonable accommodation to fisheries development needs by the United States Navy. If other factors preclude true unification, one agency should be assigned lead responsibility for fisheries-related matters, and be provided with both authority and funding for coordination of all Federal support of fisheries research and development. Though memoranda of understanding and such coordinating action is necessary, other Departments should be directed by the President to provide appropriate support and assistance. The lead agency (and/or coordinating committee) should provide periodic progress reports to the President and the Congress. An appropriate Congressional Committee should maintain oversight concern for the effectiveness of this unification and the progress of island fisheries conservation and development.

76. PACIFIC: p. 96-97, *Reconsideration . . . And Revision of Federal Laws to Accord Favored Status to Island Territories . . .*

Exemption of island territories from certain provisions of the Jones Act.

Islanders urge that Island Territories be exempted from those provisions of the Jones Act which require that vessels larger than five net tons used in commercial fishing operations must be of U.S. construction . . .

Islanders emphasized the equity of this proposed exemption, noting that the Jones Act was passed well before Guam became a U.S. Territory, and was not intended to apply to so distant an island outpost. The Jones Act was designed to assure the mainland maritime industry of local markets by removing the threat of competition from imported foreign hulls, . . . (but) was not intended to guarantee an export market for U.S. hulls across 6,000 miles to Guam, particularly in view of the extreme economic hardship this forces upon Guamanian fishermen. (Primarily because of transport costs, U.S.-built hulls cost up to ten times more than equivalents from Japan or Taiwan.)

Removal of tariff on tuna processed in the Trust Territory

The United States presently imposes the same duties on tuna processed in the Trust Territory of the Pacific Islands that are placed on foreign products. Since the relationship of the Trust Territory to the United States is special and unique, and since it is in the interests of the United States to foster economic self-sufficiency for the Trust Territory, its people urge that U.S. tariff barriers be removed from fish processed in the Trust Territory.

Full application of NEPA principles of environmental protection within the Trust Territory

Fisheries leaders both within and outside the Trust Territory of Pacific Islands urge vigorous application of all U.S. NEPA environmental safeguards to any proposed industrial development in the Trust Territory. Particularly, these procedures should apply to development of environmental impact statements and requirements for full public hearings and reviews of those EIS documents.

The most important focus of current concern is upon the tanker super-port proposed for construction in Palau, to serve as a trans-shipment facility for mid-east oil bound for Japan. For

economic and political reasons, this project is being actively promoted by Japanese and mid-east interests and by leaders in the U.S. Departments of Interior and Defense.

Early studies of environmental impact have been carried out by proponents of the project, and withheld from full public review. Independent studies have been foreclosed by denying researchers access to the area, and U.S. agency scientists have been forbidden to discuss the ecological implications of the project . . .

The United States has special responsibilities as trustee of the Trust Territory of Pacific Islands, and should promote no major environmental modification of those islands without full and vigorous adherence to NEPA standards. In the view of many observers, the United States has been in flagrant violation of these principles in recent months.

77. PACIFIC: p. 98-99, *Assistance with Programs to Protect . . . the Fragile Island Reef and Shoreline Environments*

Under primitive methods of exploitation, tropical reef and shoreline living resources and their ecosystems remained relatively stable and self-renewing through the centuries. Two prime factors have ended that passive, self-regulating cycle of renewability, both products of the advent of western civilization.

First, more efficient and too often habitat-destructive techniques exploiting living resources have replaced the traditional nondestructive tools and techniques in the same manner that the bulldozer and mechanized combine have replaced the hoe and rake in agriculture. Island fishermen now use finely woven nylon nets instead of those made from local fibers and coconut palm fronds. Outboard engines have supplanted the paddle and sail; waterproof flashlights, face plates, and powered spearguns have made obsolete the reef spearman working by torchlight. Dynamite, chlorox, and other chemical poisons have obliterated habitats once subject only to impacts of biodegradable fish poisons produced from native plants.

Second, modern governmental organization and related support services have massed unprecedented numbers of people into major population centers, thereby concentrating exploitative pressures upon adjacent fisheries resources and habitats . . .

Toward long-term goals of resource utilization on a self-renewable basis, the United States policy for fisheries conservation and development in the Island Territories should accord first priority to augmentation of the basic research required to establish guidelines for conservation and wise utilization of reef and shoreline fish resources and habitats . . . Parallel priority should be accorded development of practical guidelines for resource protection and fisheries management consistent with research findings, and assistance to the Territories with their own preparation of implementing regulations . . .

United States policy for fisheries conservation and development also should emphasize a national commitment to protect in every way feasible the subsistence fishery rights and capabilities of island people . . . and to oppose in principle and practice any unnecessary infringements upon those fisheries and their vital contributions to the nutrition and traditional way of life of the island people.

78. PACIFIC: p. 99-104, *Assistance with Development of Commerical Fisheries*

As a rich and technologically well-developed nation, the United States has a deep moral obligation to assist to the fullest possible extent the achievement of economic and social well-being for its technologically less developed Territories. Economic self-sufficiency for these Territories is also a goal of major practical importance, since it will lessen the long-term drain upon the resources of the United States which are the inevitable result of economic dependency.

For most island Territories, the surrounding seas provide the best available resource base for economic development . . . Marine fisheries offer the most immediately available and socially satisfactory opportunities for growth of self-sufficiency. Several premises must guide the planning for development of economically viable and socially acceptable commercial fisheries for the island Territories. Programs must consider and endeavor to satisfy *all* premises.

Commercial fisheries must target upon fish resources which are available for harvest in sufficient quantity to maintain sustained commercial operations, (and) must not reasonably

compete for harvest with subsistence fisheries upon which local residents depend. Development of all fisheries must be accompanied by adequate management of the resources to assure their conservation and long-term sustained yield. (Aquaculture projects can qualify as well as can other fisheries; however, they also must be compatible with subsistence fisheries and agriculture) . . .

Development of new commercial fisheries in the island Territories must follow a step-wise progression from present methods and support capabilities to those required for more sophisticated technological operations, and for the sustained production schedules required for a successful commercial enterprise. It is not reasonable to expect island people to leap overnight from sail and paddle technology to diesel and hydraulics or from comfortable as-needed day-boat operations to prolonged trips at sea under crowded conditions foreign to their experience and way of life. It follows that development of commercial fisheries requires concomitant education, training, and some change in the traditional way of life of island people . . .

Fisheries development programs for the Pacific Island Territories must be vertically integrated to achieve synchronous supportive capabilities throughout the sequence of functions required—harvesting, dockside handling and processing, storage, transport, and marketing.

Respondents to the Eastland Fisheries Survey throughout the Pacific identified the inadequacy of shoreside handling, storage, and transport facilities as primary bottlenecks blocking commercial fisheries development. Only at locations where the U.S. tuna industry maintains terminals (Pago Pago, Guam, and Palau) are refrigeration facilities adequate, and these are available only for limited and special purposes as special dispensation of their owners. Public services for making ice and/or refrigerated storage of landed fish were entirely unavailable in some areas, existing but not operating in others, and operating at unsatisfactory temperature and space levels in the remainder.

To compound the problems of inadequate dockside handling, transport capabilities suitable for delivering quality fish products are not operational between areas having fish production capabilities (e.g., Palau, Truk, Majuro, Ponape) and population centers where demand exceeds local supply (e.g., Guam, Honolulu, Saipan, Tokyo). In consequence, markets at one time supplied from Palau, Truk, and other fish-surplus areas no longer will accept products from those areas. In Guam, for example, markets at one time supplied from Truk and Palau now choose instead to import fresh fish from the Philippines. According to those interviewed, the quality of product from the Trust Territory is no longer acceptable.

These examples underscore the problems to be solved. Finding and catching fish does not, of itself, produce a viable commercial fishery. That catch must be properly handled, processed to the extent necessary, stored and transported with minimum loss of quality, and offered to consumers for sale at a profit. Fisheries development programs must achieve this vertical integration of functions to be successful. In some instances, where local demand is heavy, the chain of support functions may be relatively short and simple, although none the less critical to success (e.g., Pago Pago, Saipan, Guam). Elsewhere the potential supply may greatly exceed local demand, and the logistics of storage and transport to more distant markets will require more complex arrangements.

United States assistance will be required in the form of scientific, technical, and economic advice for program development, and in many cases through direct assistance in developing the required physical support capabilities (e.g., icing, freezing, frozen storage and transport facilities).

In all Pacific Island Territories, high priority should be given to improvement of regional capabilities to properly process, store, and transport fisheries products. Adequate docks, roads, and airports, and reliable water and electric power are first necessities, followed closely by properly designed, maintained, and operated refrigeration and other fish processing facilities . . .

U.S. assistance in the form of scientific, technical, and economic advice in the development of fisheries programs must be tailored to the special needs and conditions of the area and the people to be served . . . Two examples are diagrammed (p. 105-106) to demonstrate the kinds of fisheries interactions which must be considered.

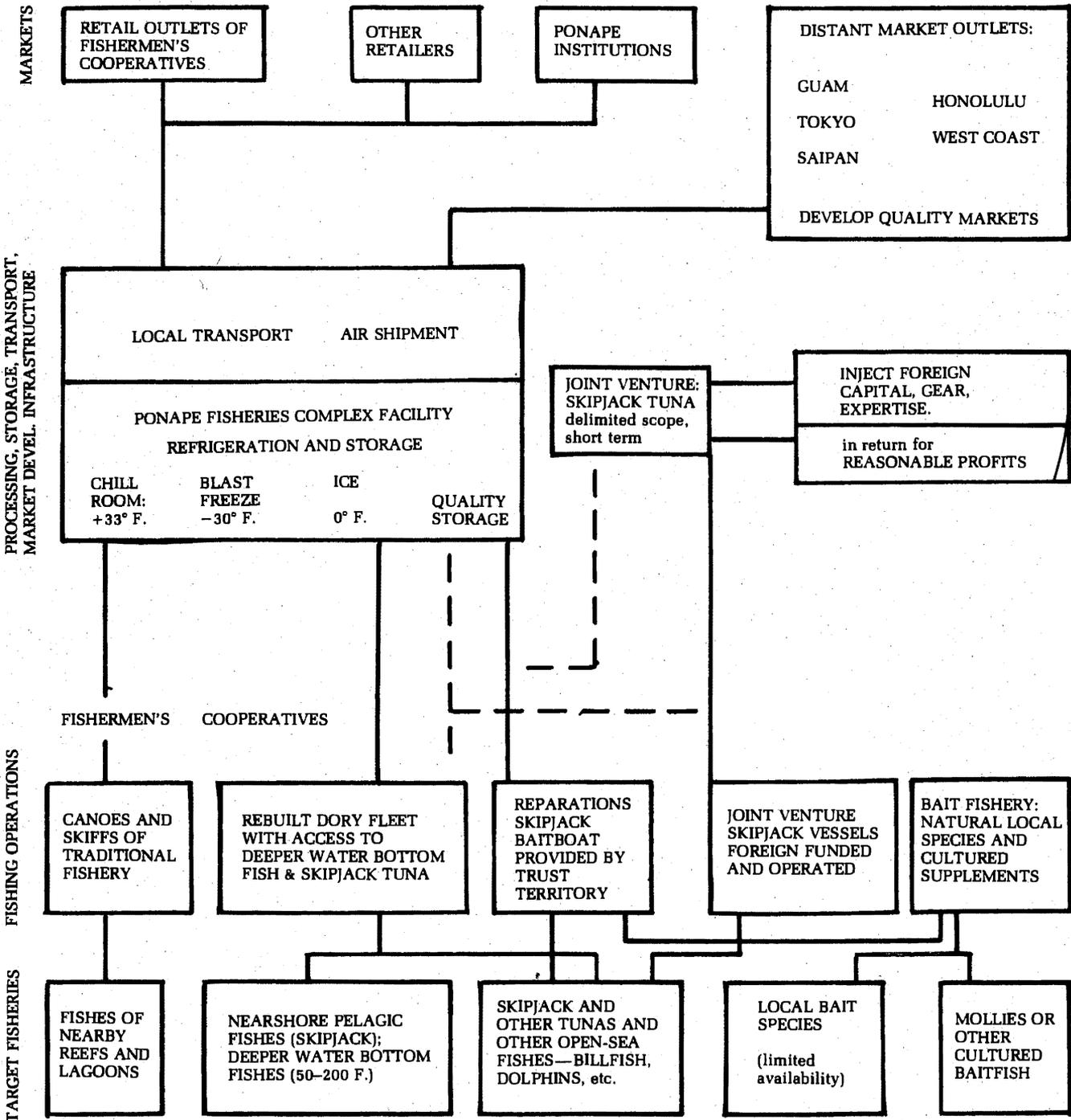
DIAGRAMMATIC OUTLINE FOR FISHERIES DEVELOPMENT, PONAPE, TRUST TERRITORY

PONAPE BENEFITS

improved supply of quality fish for food available to local markets

economic development and increased economic self-sufficiency through growth of local commercial fisheries: improved employment opportunities, tax base, and associated benefits to related industries & services

related community benefits through vertical integration of services



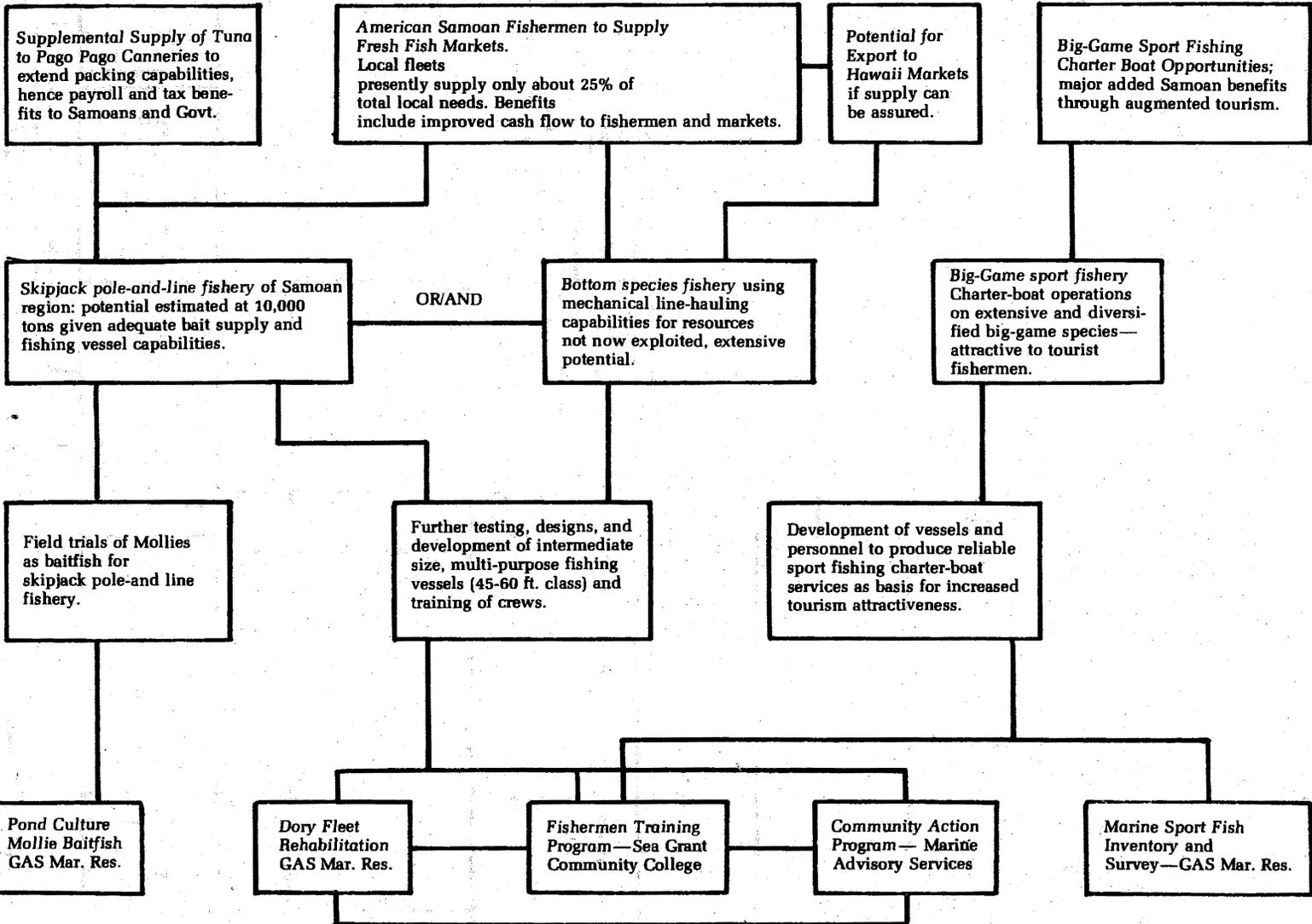
NOTE:
 CONSERVATION AND SCIENTIFIC MANAGEMENT OF FISHERIES RESOURCES ARE BASIC REQUIREMENTS.
 EDUCATIONAL PROGRAMS ALSO ARE NEEDED FOR JOB TRAINING AND COMMUNITY ACCEPTANCE OF PROGRAM.

POTENTIAL
BENEFITS TO
AMERICAN
SAMOA AND
ITS PEOPLE

TARGET
FISHERIES
AVAILABLE FOR
DEVELOPMENT

KEY NEXT
STEPS IN
FISHERIES
DEVELOPMENT

PREREQUISITE
CAPABILITIES
NOW BEING
DEVELOPED



For Pago Pago, American Samoa, . . . fisheries development primarily requires improvement and proper integration of harvesting capabilities . . . Three fisheries are targetted for development—a local pole-and-line skipjack fishery, a bottom species fishery to supply local fresh fish needs, and charter-boat operations to serve tourist sportfishermen.

For the Ponape District of the Trust Territory, . . . shoreside processing, storage, and shipping facilities must be developed capable of furnishing a quality product to distant markets. Ponape District already has developed some of the resources required, and is seeking joint venture capital to complete the "Ponape Fisheries Complex" . . .

79. PACIFIC: p. 104, 107, *Exploration for Opportunities to Develop Recreational Fisheries . . .*

Waters off most Island Territories contain fishable populations of highly popular sport fishes—billfish, tunas, mahi-mahi, and many others normal to tropical waters. Land-based recreational opportunities for visitors to these islands are relatively limited. Safe and convenient access to offshore sportfishing could add materially to the attraction of the islands for tourists, and thus significantly increase the dollar distribution of tourism to the island economy. In the interests of island self-sufficiency, this should be a high priority American objective.

Encouragement of recreational fisheries requires many of the same processes and developments as for commercial fisheries . . . For all the Island Territories, enhancement of recreational fishing opportunities and development of requisite services merits full and careful consideration.

80. GREAT LAKES: p. 10–11, *Recommendation #3*

Specifically, the provision of Federal funds for construction grant programs should be accelerated to permit the completion on schedule of already designed pollution control facilities. The 1976 Federal Toxic Substances Control Act should be promptly and effectively implemented to prevent recurrences of PCB and Mirex types of contamination.

Where fishery resources have been officially declared unsafe for human consumption because of environmental contamination or consumption has been limited by regulatory agency fiat, remedial action by responsible Federal and State agencies has been at best extremely slow. A major cause of inadequate response appears to be the absence of clearly defined and designated responsibility and activity by the primary Federal agencies concerned with contamination of the environment and food: the U.S. Environmental Protection Agency (EPA) and the U.S. Food and Drug Administration (FDA).

To provide for prompt remedial action necessary to minimize the potential threat to human health, the denial of full use of fishery resources, and the economic hardship endured by beneficiaries of recreational and commercial fisheries activities, when contamination of an area results in contamination of fishery resources in excess of levels considered safe for human consumption, it is recommended that:

1. Congress direct the Food and Drug Administration to initiate immediate action to determine and publish the nature and extent of the problem by: specifying species and sizes of affected and unaffected organisms; identifying the specific areas where contaminant levels are not considered safe for human consumption; identifying adjacent areas where contaminant levels are considered safe for human consumption; and making news releases to ensure widespread dissemination of this total information. The purpose of this action is to prevent unaffected areas and species from being adversely affected by publicity about the problem.
2. Congress direct the Environmental Protection Agency to begin immediately after notification by FDA of fishery resources with contaminant levels above those considered safe for human consumption to: identify the source(s), extent and degree of contamination; report to Congress at 90-day intervals on remedial actions taken until the problem is satisfactorily alleviated; and, through legal action when appropriate, terminate, or render harmless from the standpoint of contamination of fishery resources, the source(s) and remunerate the parties denied use of fishery resources because of contamination which exceeds levels considered safe for human consumption.

81. GREAT LAKES: p. 15, 16, Recommendation #14

Regulation of the water levels of the Great Lakes is under the jurisdiction of the International Joint Commission. Present facilities permit regulation of discharges from Lake Superior and Lake Ontario. Regulation of these discharges permit a degree of control over the water levels in the other three lakes. In establishing water level regimens, proper attention should be given to the effect of water levels on fish habitat, boat and dock facilities, as well as on shoreline erosion, navigation, power and other interests, in order to minimize adverse impacts on recreational and commercial fishing.

82. GULF (SUMMARY): p. 1, Taxes (direct quote)

83. GULF (GSRI): p. 96, Taxes, Duties, Rebates, and Exemptions

With respect to duties, fishermen at the public meetings showed a natural ambivalence in keeping with two aspects of their self-interests. On the one hand, there was near unanimity about the need for some sort of duty or ad-valorem tax on imports of seafood products. Imports were cited as a major cause of decline in the prosperity of Gulf fisheries, particularly by shrimp producers, who are reportedly facing imports originating from over 70 foreign countries, and also by finfish producers, especially snapper, grouper, and mackerel fishermen.

Factors said to be especially damaging to the domestic industry were (1) the existence of cheap labor and subsidies in foreign countries, which allow fishery products to enter the U.S. market at very low prices; (2) the ability of foreigners to send to this country processed products that would not meet Food and Drug Administration guidelines if they had been produced in the United States; (3) the provision of financial help and advisory services to foreign competitors by the Agency for International Development (AID), the World Bank, and other organizations run largely or entirely with U.S. tax dollars, and (4) the practice of some importers of "dumping" quantities of a product on the market, thereby producing severe and unpredictable fluctuations in the market prices. A fifth concern was that many imported products are sold without designation as imports. Many fishermen believe that such goods should be clearly marked "imported" for the protection of the consumer and the U.S. fisheries industry. This was recommended as part of the present effort to achieve truth in labeling and packaging.

It was widely felt that some type of duty imposed on imports would help to rectify these problems. Most fishermen realized that short-term domestic shortages might make imports desirable, and thus were not against all imports as such. Control of market fluctuations and equalization of market opportunity were the prime policy targets identified by the fishermen and state agency representatives.

84. GULF (GSRI): p. 98-99, Loans

New boat loans are a particular problem for fishermen because of the dramatic increase in prices. According to one fisherman, a modern shrimp trawler that cost \$113,000 in 1973 would cost about \$195,000 today. He had obtained his estimates from a shipyard in Texas that had built a trawler for him. Moreover, the shipyards are reluctant to give estimates because of the rapidly increasing cost of materials. They prefer to build, when possible on a "cost-plus" basis. When estimates are given, short time periods are specific, and adjustment clauses are common.

In the realm of private loans, fishermen at several meetings complained that many bankers and merchants treat them like outcasts and that they have great difficulty in obtaining loans for business and personal use. Business people, on the other hand are concerned that many fishermen do not keep records that would enable an adequate judgment on the degree of risk involved in a specific loan. They also point out that fishermen are highly mobile and that banks and stores must operate on the basis of past experience with fishermen as a group when they do not have adequate information about an individual. A Louisiana processor admitted that poor management practices, which are widespread in the fisheries industry, were a major reason for the unwillingness of private financial institutions to meet the needs of the industry. One Key West banker pointed out that a banker only needs to know his people. He said that in 20 years his bank had never lost money lending to fishermen and that it was just a matter of working together on payment schedules.

85. GULF(Summary): p. 2, Loans (direct quote)

86. A. GULF (SUMMARY): p. 2. Insurance (direct quote)

B. GULF (GSRI): p. 100, Insurance

Especially among large fleet owners, the P&I aspect of insurance and the prevalence of expensive lawsuits were seen as an important problem. Suits are brought by crewmen under maritime law and the Jones Act, which provides unlimited liability coverage and covers crew members ashore on port call as well as when they are fishing. Under these covering acts, suits brought against owners are heard in the Admiralty Court by federal judges. Vessel owners claim that exorbitant settlements have been awarded crew members on slight evidence. One fleet owner in Florida said that he had settled many suits out of court at considerable expense because he was afraid of the even larger penalties that might be unjustly decided by the court. He also attributed the decline of Pensacola as a snapper port to lawsuits that drove the major fisheries owners out of business.

87. GULF (GSRI): p. 100-101, Insurance

Several fishermen complained that services at the Public Health Service hospitals were available for members of crews of documented vessels (over 5 gross tons), but not for crews of smaller vessels. They stated that captains and crews of small boats, of which there are thousands around the Gulf, are without protection, and that the families of most fishermen do not have any health insurance. Further, captains and crews do not have retirement benefits other than social security, and few have the "fringes" generally taken for granted by other industrial segments. The Jones Act provides that the vessel operator can be sued for unlimited damages; but those under its provisions are excluded from Workmen's Compensation.

88. GULF (GSRI): p. 108, Theft

Illegal sales of catches are more common than is generally supposed. By maritime law, the "cargo" of a vessel is the responsibility of the captain of the vessel as long as it is aboard. Theoretically, he has the right to dispose of it as he chooses. Thus, if a captain decides to sell the catch, it is extremely difficult to prevent him from doing so, particularly if he is far from home. In the offshore shrimp fishery that operates throughout the Gulf, it is common practice for vessels to dispose of their catch at ports other than the home port. Thus, the processor may buy in good faith when in reality he is buying stolen goods. One fleet owner at a meeting in Texas suggested stiff penalties for processors or buyers who did not properly investigate credentials. He also suggested that processors be forced to obtain the assent of the owner before purchasing from a vessel, that cash payments be prohibited, and that the captain's rights be modified. Shrimp and snapper fisheries are the two most plagued by illegal sales, partly because they have a wide range of operation, but also because they have great difficulties in obtaining reliable personnel for the long voyages.

89. GULF (SUMMARY): p. 8-9, Sea Grant Program (direct quote)

90. GULF (SUMMARY): p. 10, Pollution Control (direct quote)

91. GULF (SUMMARY): p. 10-11, U.S. Army Corps of Engineers (direct quote)

92. GULF (SUMMARY): p. 12, Federal Energy Administration (direct quote)

93. GULF (SUMMARY): p. 12, Department of Labor (DL) Direct quote)

94. ATLANTIC: Recommendation #17 Highway Use Taxes (direct quote)

95. ATLANTIC: Recommendation #31 Market Restraints (direct quote)

SUMMARY OF INTRODUCTORY REMARKS AT THE NATIONAL CONFERENCE

A. *Welcome and Opening Remarks—William Simpson, Legislative Assistant, Office of Senator James O. Eastland.*

After some introductory comments, Mr. Simpson discussed Senator Eastland's proposals concerning the development and implementation of the survey. He suggested that Eastland's concept of a national fisheries policy paralleled two U.S. programs, disaster relief and agriculture. The National Disaster Relief Program spawned by Senator Eastland provided for the first time responsive federal relief for any disaster which might occur. A single piece of legislation now covers all future disasters. Previously, legislation was enacted for each particular disaster and after the damage had taken its toll. Federal relief was slow in coming. Mr. Simpson continued with a similar discussion on agricultural programs. Present U.S. policy provides for automatic curative responses to crop failures or other problems facing American farmers. The effectiveness of this policy allows 4 percent of the U.S. population to feed and clothe the nation and other people as well.

Next Mr. Simpson outlined the five steps of Senator Eastland's proposal to develop a comprehensive fisheries policy:

- (1) adopt a resolution which states full Congressional support for a strong U.S. fishing industry. The resolution was adopted overwhelmingly by a voice vote in the Senate and a record vote of 405 to zero in the House of Representatives.
- (2) obtain funding for the marine fisheries commissions to implement a survey. An appropriation of \$500,000 was approved by Congress for this use.
- (3) charge the marine fisheries commissions with the conduct of public hearings to obtain "grass roots" input for a national fisheries policy.
- (4) bring together representatives of the U.S. fishing industry to produce a list of recommendations for federal action.
- (5) and finally, develop a legislative package which would support, for the first time in the nation's history, commercial and recreational fisheries.

Mr. Simpson emphasized that the resultant fisheries program enacted as a result of Survey deliberations will not be a perfect program suitable for the next 200 years. As conditions change and more needs arise, Congress will have to modify the legislation to meet these changing conditions. The important thing is that the law already will be on the books—major legislative action will not be required for each specific need.

He expressed a sincere conviction that Congress will do everything they can to improve commercial and recreational fisheries in America. He noted that the Eastland Resolution had 44 sponsors in the Senate which included 13 Standing Committee Chairmen. This support plus the unanimous vote in the House plainly expresses the intent of Congress.

Mr. Simpson concluded his remarks by stating that the success of the survey depends on the work to be done in the four days of conference deliberations. He had no doubt that the delegates would complete the task and by doing so would be serving "every aspect of commercial and sport fishing, every section of this nation, and indeed the nation itself."

B. *Statement of Congressman Robert L. Leggett, Chairman, Subcommittee on Fisheries and Wildlife Conservation and the Environment, House Merchant Marine and Fisheries Committee.*

Congressman Leggett opened his remarks by stating his optimistic view of future accomplishments of the new Congress and Administration. Nothing less than a renaissance of the fishing industry is expected, and he believes the Eastland Survey to be critically important in this revitalization effort. Mr. Leggett then outlined the actions of the 93rd and 94th Congresses with respect to fisheries. The Eastland Resolution of December 1973, stated Congressional intent "to support, protect and enhance the coastal and offshore fisheries resources of the United States." Notably, the Office of Management and Budget supports a basic policy which is contrary to this Resolution. Full support from government is necessary to reverse this policy and the downward trends of the fishing

industry. He stated that the intent of the Resolution "was to launch a national program to serve the American commercial fishing industry, to serve the sport fishing industry, and to respect and safeguard the traditional authority and capability of the states in the formulation and execution of such a national program."

In January of 1974 Senator Hollings, Subcommittee on Oceans and Atmosphere, requested the Office of Technology Assessment (OTA) to assess American fishing industry technology. He was concerned with the substantial trade deficit in fish products which exceeds \$1 billion annually. Congresswoman Sullivan of the House Merchant Marine and Fisheries Committee made a similar request of OTA for an assessment of U.S. fisheries technology as well as an assessment of aquaculture in estuaries and open waters. In addition to the OTA investigations, Congress requested the General Accounting Office (GAO) "to undertake a study to delineate policy issues, options, and costs of revitalizing the U.S. commercial fishing industry." Congressman Leggett pointed out that all of these efforts are scheduled for completion near the end of 1976 or early 1977. Finally, he emphasized the importance of the recent legislation, the Fishery Conservation and Management Act of 1976, which "is one of the most significant and far-reaching enactments Congress ever made so far as American fisheries are concerned." In summary, a great deal of attention is being paid by Congress to U.S. fisheries problems and a significant commitment has been made on the part of the Congress to develop a national fisheries policy.

The Congressman stressed that Congress will examine the entire spectrum of fisheries problems from biology to harvesting, processing, marketing and consumption. Such a comprehensive investigation will require significant augmentation in the Commerce Department budget. As far as the near future and the 95th Congress are concerned, the Subcommittee on Fisheries and Wildlife Conservation and the Environment specifically intends to: (1) review the status of the Fishery Conservation and Management Act of 1976, to determine the steps necessary to ensure control of foreign fishing on March 1, 1977; (2) continue to work in a cooperative fashion with the National Marine Fisheries Service, Department of State, and the Fish and Wildlife Service; (3) hold hearings on the Commercial Fisheries Research and Development Act; the Marine Protection, Research, and Sanctuaries Act; the Fishermen's Protective Act; the Marine Mammal Act; the Jellyfish Control Act; and proposed amendments to the Fish and Wildlife Coordination Act; and (4) seek passage of the proposed National Aquaculture Development Act.

Congressman Leggett closed by welcoming the advice of all the delegates in future deliberations of the Subcommittee and emphasizing the importance of the task before them at the Eastland Conference.

C. *Statement of David H. Wallace, Associate Administrator, National Oceanic and Atmospheric Administration.*

Mr. Wallace stated that Senator Eastland's concerns for the welfare of the fishing industry and the status of fish stocks off our coasts are the concerns of NOAA and NMFS as well. The Executive Branch, in fact, has been investigating these issues for several years at the initial request of the National Advisory Committee on Oceans and Atmosphere. By their recommendation, NMFS began to develop a national plan for marine fisheries. Mr. Wallace stressed the pertinence of this study to the Eastland Survey deliberations and pointed out that the two were neither competitive nor duplicative. Rather he felt the two efforts were complementary in nature and will enable the government, both the legislative and administrative sectors, to do a better job of revitalizing fisheries. Although the plan in no way represents a unanimity of views on all subjects, it does represent a composite of the views of the many interests involved and reviews the alternatives available for developing a national plan. He stated that unanimity is not the primary goal, but that it is important that the varied interests work together to produce some reasonable proposals for a plan. This is essentially the task at hand for the Eastland Conference participants.

Mr. Wallace further mentioned that the plan as approved by the Secretary of Commerce will provide a basis for the program that the Department is developing. With the incorporation of the results of the Eastland Conference, the national fisheries program will be more complete. NOAA looks forward with great interest to the recommendations approved at this Conference and foresees significant developments resulting from this effort.

D. *Statement of Robert W. Schoning, Director, National Marine Fisheries Service.*

Mr. Schoning supported Mr. Wallace's opinion that the National Plan and the Eastland effort have

very similar goals and are compatible. He also agreed with Congressman Leggett and Mr. Simpson that full Congressional support exists for developing a national fisheries program. Furthermore, the Department of Commerce is committed to implementing the major recommendations of the National Plan. Director Schoning asked for everyone's assistance in this implementation as well as their meaningful contribution to fulfill the obligations of the Eastland Resolution. Industry should take advantage of this rare opportunity to provide meaningful input. He concluded by emphasizing that the Eastland Resolution directs NMFS and NOAA to cooperate with industry leaders in developing the final product for Congress.

E. *Statement of Lee Weddig, Executive Director, National Fisheries Institute.*

The basic concern of the fishing industry, according to Mr. Weddig, should be to provide more seafood to the consumer, thereby benefiting all of industry and society. Mr. Weddig outlined three basic methods for accomplishing this goal. The first is to increase the supply of fish and seafood products and to assure their quality. In order to augment supplies, resources must be protected from depletion and all segments of the industry must be strengthened. Additionally, access to traditional U.S. fishing grounds in foreign waters must be maintained, underutilized resources should be developed and aquaculture encouraged.

The second method is to increase consumer acceptance of fish and seafood products. Consumer confidence in the quality of the product is critical. This can be accomplished by preventing environmental tragedies which adversely affect seafood quality and by marketing a full range of product forms to give the consumer the widest possible selection. Added to these, consumer education on the nutritional and economical attributes of seafood and encouragement of proper handling and display techniques at the retail level will help increase consumer acceptance.

The third method is to promote "a business climate that is conducive to profitable operation by all facets of our industry." This would involve minimizing the effects of restrictive regulations by FDA, FTC, EPA and OSHA. Also, federal assistance could be extended to fisheries as provided to the agriculture industry. Finally, the government should avoid wage and price control regulations.

Next, Mr. Weddig identified two specific issues he felt were critical at this time. These include increasing productivity at all levels to remain competitive. He was concerned that seafood products were not competitive at the retail level because other lower priced protein commodities are available. The industry must become more efficient to compete effectively. Industry will require assistance in the form of development programs and loans to encourage investment of private capital. Changes in institutional arrangements should be considered to provide the best means of assisting the industry.

Secondly, environmental problems must be solved. The first step should be to reduce the number of agencies with responsibility for promulgating regulations. In addition, the industry needs to be directly represented at the top of the Executive Branch of government to prevent for example an unrealistic mercury guideline which severely hampers industry. Finally, the Marine Mammal Protection Act must be altered to prevent economic hardship. Mr. Weddig closed his remarks by encouraging delegates to concern themselves with the fundamental objective of meeting consumer needs.

F. *Statement of Christopher M. Weld, Secretary, National Coalition for Marine Conservation.*

Mr. Weld opened by emphasizing that "the purpose of conservation is to maximize both the nutritional and recreational benefits of the resource." With this concept in mind, he proceeded to discuss the needs of marine recreational fisheries. Mostly, what is needed is not new legislation but satisfactory implementation of existing statutes. The principal requirement is adequate funding on a continuing basis to expand existing programs. The economic contribution of marine recreational fisheries (MRF) although not accurately estimated with present techniques, is at least equal to the value of the commercial fishing industry. "Nevertheless, this is rarely taken into account in the formulation of national policy as it relates to fisheries." The Coalition recommends that adequate recognition be made of MRF at the national level.

Specifically, management plans mandated by P.L. 94-265 must recognize that management on the basis of MSY is not equitable to recreational fishermen. Escapement of smaller fish to allow growth to trophy size must be allowed. Moreover, planning must recognize that many species are important as forage for game fish and other predators. A notable deficiency is the lack of biological data for management purposes. Section 304(3) of P.L. 94-265 requests that the Secretary of

Commerce specifically collect information on the interdependence of fish stocks. More emphasis must be placed on research to determine predator-prey relationships.

Enhancement of the resources is also necessary and should be accomplished by eliminating toxic substances which affect fish growth and survival. Habitats must be protected from dredging, dumping, and development by establishing sanctuaries in appropriate areas.

Although some positive steps have been taken in this direction, there is a definite need for collection of more data on the fisheries, i.e., the number of anglers, species sought, methods used, amount of money spent on equipment, and the number of jobs created as a result of angler expenditures.

Congress should appropriate additional funds to allow the Secretary of Commerce to comply with the requirements of P.L. 94-265. The Secretary should be directed to allocate such funds to recreational and commercial fisheries on an equal basis, with the provision that game fish which are also targets of a commercial fishery are considered as recreational species. The Coalition is opposed to increasing revenues through establishment of a federal saltwater sport license, although it would support a state licensing system based on federal guidelines. Mr. Weld concluded by stating that "We do not, however, suggest that recreational fishing needs should achieve parity at the expense of commercial fishing needs. Instead, we propose that the program proposed as a result of the Eastland Survey must contain an overall increase in funding sufficient . . . to meet the needs that we have discussed."

II. Reports of Other Congressional Fishery Survey Activities

A. Peter Johnson, Office of Technology Assessment

The Senate Commerce Committee and the House Merchant Marine and Fisheries Committee requested that OTA conduct a technology assessment of U.S. fisheries. Investigations began in 1975 to specifically examine possible opportunities for domestic fisheries given the passage of extended jurisdiction legislation. Since completion of this study and passage of the Act, OTA has redirected its effort to look at future problems of implementing the Act, specifically in terms of the federal and regional machinery required to manage fisheries.

The Office of Technology Assessment is an advisory arm of Congress established in 1972 to assess the impact of new technology on people's lives. The Technology Assessment Board, comprised of six Senators and six Representatives, initiates and reviews investigations.

Three major issues are being investigated in the present study. These are fisheries management, fisheries conservation, and enforcement. The primary concern under the management category is to develop programs which will expand the statistical bases, so that the Regional Councils can become more effective in developing management plans. OTA has suggested various ways of obtaining the needed data. Under conservation, OTA is investigating NMFS stock assessment and enhancement programs and suggesting methods of evaluating such programs in the future. The third area under investigation, enforcement, focuses on the Coast Guard's plan and analyzes new enforcement techniques and equipment which could be used in the future.

The OTA presently is preparing the final report on these subjects and expects to have a draft by December of 1976. Mr. Johnson expressed his appreciation for the help that OTA has received from fisheries people in reviewing their papers and mentioned the importance of this type of interaction in making their Congressional advisory service effective.

B. Dr. Jim Curlin, Ocean and Coastal Resources Project, Congressional Research Service

The Ocean and Coastal Resources Project is a small group of multidisciplinary which investigates problems involved in ocean policy, of which fisheries is one area of concern. The Congressional Research Service is not an advocacy body but a research organization. They analyze problems identified by Congress in an objective manner. Activities of CRS are limited to those in the legislative arena, and they must rely on other bodies to produce the data which they summarize and evaluate. The process is to "try to find out where the biases are, and give an evaluation on an issue basis to Congress in response to their needs."

The National Ocean Policy Study is an example of one of the clients of CRS. This group was formed in an attempt to establish some organization of the many Congressional Committees responsible for ocean affairs. This is not a body which proposes legislation, but one that studies the

problems "in an inter-committee context." The NOPS was created about three years ago and its membership includes the Committees of Commerce, Interior, Armed Services, and others. This group is responsible for background work done on many ocean-related Acts, including the Fishery Conservation and Management Act of 1976. The Ocean and Coastal Resources Project of CRS has been directly involved in research support of this legislation.

Future areas of ocean policy investigation include marine transportation, marine science and technology, problems of implementing P.L. 94-265, and government reorganization, particularly with respect to Regional Council operation. The Regional Council concept of state/federal resource management is an innovation in government. CRS will be looking very closely at problems and successes of the Councils and how they function in regulating fishery resources. Further investigations will be made of the problems associated with the Marine Mammal Protection Act of 1972 and coastal zone management problems resulting from the competition between oil and gas developers and the fishing industry.

LIST OF DELEGATES TO THE NATIONAL CONFERENCE AND AGENCIES AND ORGANIZATIONS REPRESENTED

DELEGATES

Atlantic Coast

Daniel A. and Bobi Arnold
Massachusetts Inshore Draggermen's Association
Massachusetts

Robert S. and Melody B. Barlow
Massachusetts Lobstermen's Association, Inc.
Massachusetts Marine Fisheries Advisory Commission
Massachusetts

Edward A. Blackmore
Maine Lobstermen's Association
Maine

Wayne A. Bough
University of Georgia
Marine Extension Service
Georgia

James Gibson
Fisherman
Maine

John S. Gottschalk
International Association of Fish and Wildlife Agencies
Washington, D.C.

Thomas Herbert
Natural Resources Consultant
Florida

Matt Howell
South Carolina

Forrest J. Hoxsie
Point Judith Fishermen's Cooperative
Rhode Island

Jay Lanzillo
Cape Cod Commercial Fishermen's Coalition
Massachusetts

Barry R. Lund
Capt'n Supply Company
New Jersey

Michael T. Matlack
Stuart Angler Corporation
Florida

Valdis Matvejs
Commercial Fishermen's Association of Monroe County, Inc.
Florida

Frank B. McGuinnes
Virginia Seafoods, Inc.
Virginia

Richard H. Miller
Long Island Fishermen's Association
New York

Barbara B. Porter
Delaware Sportsfishing Representative
South Shore Marina
Delaware

Howard Seymour
University of Delaware
Marine Advisory Service
Delaware

Bill Sieling
Department of Natural Resources
Maryland

Donald Webster
Marine Advisory Agent
Maryland

Christopher M. Weld
National Coalition for Marine Conservation
Massachusetts

Great Lakes

Roger M. Bodin
Bodin Fisheries
Wisconsin

William S. Cahill, Jr.
Cahill Fisheries, Inc.
New York

L. William Carlson, Jr.
Michigan Fish Producers Association
Michigan

John F. Carr
National Marine Fisheries Service
Michigan

Ray H. Full, President
Ohio Commercial Fishermen's Association
Ohio

W. Mason Lawrence
Consultant, Natural Resources Management
New York

Bert Smith
Smith Brothers Fisheries
Wisconsin

Stanford H. Smith
Great Lakes Consultant
Michigan

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Midwest Federated Fisheries Council
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Gulf Coast

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Kathryn K. Vanderpool
Pacific Coast Fishermen's Wives Coalition
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Charles C. Yamamoto
International Billfish Association
Hawaii

LIST OF ORGANIZATIONS REPRESENTED

American Fisheries Society
Atlantic States Marine Fisheries Commission

**Congressional Research Service
Gulf South Research Institute
Gulf States Marine Fisheries Commission
International Association of Fish and Wildlife
Agencies
Merchant Marine and Fisheries Committee, House
of Representatives
National Coalition for Marine Conservation**

**National Fisheries Institute
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
Office of Senator James O. Eastland
Office of Technology Assessment
Pacific Marine Fisheries Commission
Sport Fishing Institute
U.S. Fish and Wildlife Service**