U.S., Poland Sign Mid-Atlantic and North Pacific Fisheries Conservation Agreements

The United States and Poland concluded two fisheries conservation agreements in late May, the U.S. State Department reports. On 29 May representatives of both countries signed an agreement for improved conservation of such species as river herring found off the U.S. Atlantic Coast and increased protection for some shellfish and other continental shelf creatures, such as lobsters. On 30 May both Governments concluded a short-term fisheries agreement effective from 15 June to 31 December 1975 relating to fisheries of the North Pacific area from California to Alaska. This was the first such agreement between the two countries on Pacific Coast fisheries.

The new mid-Atlantic fisheries agreement-the latest in a series which began in 1969-places additional and much-needed restrictions upon Poland's fishing effort in waters of the western region of the middle Atlantic. These waters, heavily fished by foreign fleets, contain once-rich stocks of fish such as flounders, hake, and black sea bass which are particularly desired by U.S. consumers and which are of great importance to U.S. fishermen. The new restrictions include both additional reductions in the geographic area in which the Poles may fish and reductions in the amount of the Polish catch. For example, Poland agreed not to direct any fishing effort toward river herring and to avoid fishing at times and in places where concentrations of such fish occur.

As is the case with all such agreements concluded recently, the new arrangements provide for a number of practical measures that are to be taken to avoid catching or otherwise harming the fishery resources of the U.S. continental shelf, such as lobsters and some crabs. In order to help ensure that these and other provisions in the agreement are strictly adhered to, additional arrangements permit the use of observers upon Polish fishing vessels and allow for on-board inspection of catches and gear.

Practical measures to minimize the

possibility of conflict between different types of fishing gear have been included within the agreement and, should such conflicts nevertheless occur, the new agreement continues the existing U.S.-Polish Fisheries Board, a mechanism aimed at providing for settlement of claims for damage from gear conflicts and consideration of other fisheries problems arising from the agreement.

In return for the many measures resulting in a reduction of the Polish fishery to protect resources of special interest to U.S. fishermen, the agreement continues to allow Polish vessels to conduct loading operations in the contiguous fisheries zone between 3 and 12 miles off the U.S. coast in three localities and to make limited port calls as before. A new provision permits Polish vessels a limited opportunity to exchange their crews in the Port of New York only.

The agreement entered into force 1 July 1975 and extends to 30 June 1976 and, if agreed at that time, may extend for another year. At the request of either government, it can be terminated upon 2 months notice at any time during the period of force of the agreement.

The U.S. delegation to the deliberations was headed by William L. Sullivan, Jr., Coordinator of Oceans and Fisheries in the Department of State, and included a number of representatives of the east coast fishing community. The Polish delegation was led by Deputy Minister of Foreign Trade and Maritime Affairs Romuald Pietraszek.

On 30 May, Poland, a relative newcomer to the North Pacific fisheries, agreed to maintain the level of her fishing effort in 1975 to not more than 15 vessels, of which not more than 11 vessels would fish at the same time. The 11 vessels will be dispersed in a manner designed to avoid a concentration of vessels in one locality.

Poland agreed to refrain from fishing for salmon and halibut and will not conduct specialized fisheries for other species of special importance to the United States. These species include rockfish, blackcod, flounders, soles, anchovy, Pacific mackerel, and shrimp. At the same time, Polish vessels will, during the period of the Agreement, begin to switch from bottom trawling to pelagic trawling, thereby minimizing the chances of catching bottom species which U.S. fishermen primarily seek. In addition, Poland has agreed to abide by the conservation provisions of the agreements concluded between the United States and other countries fishing in the North Pacific. Furthermore, Poland agreed to refrain from fishing in a new closed area off northern California where U.S. fishermen fish with fixed gear so as to prevent damaging the U.S. gear.

Both Governments agreed to expand their research on species of interest to both sides and to exchange biostatistical data on a timely basis. Both Governments also agreed to initiate a program whereby fisheries experts from one side could board vessels of the other side to observe their operations and collect data. In this regard, the Polish side also agreed to permit duly authorized U.S. Federal and State officials to board and conduct inspections of their vessels.

The new Agreement also spells out measures which the Polish fishermen will take to avoid taking U.S. continental shelf resources, such as king and tanner crabs. In return for the cooperation extended by the Polish side in agreeing to observe existing conservation arrangements in the North Pacific, the United States will permit Polish vessels to conduct loading operations in two localities in the U.S. contiguous fishery zone (3-12 miles).

Marine Recreation Survey Details Fishing Activity

Almost 11 million people in 13 northeastern States and the District of Columbia participated in saltwater recreational fishing activities last year, according to a survey early this year by the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). The 10,856,000 people represented 4,986,000 households, or a little more than two people per household surveyed. The combination telephone and mail survey was conducted by a private company under contract to NOAA's National Marine Fisheries Service and included the District of Columbia, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia.

New York State was most active in marine recreational finfishing and shellfishing with almost 3 million people representing over 1 million households. Vermont had the lowest activity with about 39,000 people in 18,000 households participating. The survey also determined that swimming was the most popular of all marine recreational activities, followed by finfishing, beachcombing, pleasure boating, sailing, and shellfishing.

These survey results are the first of two parts. Those people who responded to the telephone survey by indicating participation in saltwater recreational activities were sent questionnaires to learn how many and what kinds of fish and shellfish were caught and how much time and money was spent for saltwater recreational activities. The data received from the questionnaires has been analyzed and the results of the complete survey will be available soon.

More detailed information on the telephone survey is available in an NMFS report, "Participation in Marine Recreational Fishing, Northeastern United States, 1973-74," CFS No. 6236, free of charge, from the National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Washington, DC 20235.

NMFS Scientists Study Radio-Tagged Fur Seals

Scientists at the National Marine Fisheries Service's Northwest Fisheries Center, Seattle, Washington, have equipped fur seals with sound to gain more information on their feeding, movements, and behavior. Harnesses with radio transmitters were attached to 50 young male fur seals when they returned to St. George Island last July. St. George and St. Paul are two of the Pribilof Islands in the Bering Sea that are used for breeding grounds by approximately 80 percent (1.3 million) of the world's northern fur seals.

Fur seals are harvested each year on St. Paul Island by the Department of Commerce's National Oceanic and Atmospheric Administration under the provisions of the Interim Convention on the Conservation of North Pacific Fur Seals. Commercial harvesting on St. George Island was stopped in 1973 to permit scientists to study a protected population of northern fur seals.

Practically nothing is known about the normal cyclic activity of the young males because they have traditionally made up most of the annual harvest, which normally took place in June or early July. Lack of this knowledge reduces the accuracy of population estimates for young males. A count of these animals on land cannot give the total population because there are always animals feeding at sea and many arrive at the island as late as October. The census is further complicated because of differences in behavior due to age and because the ratio of the number of animals on and offshore probably changes because of weather and human disturbances.

Use of telemetry equipment becomes even more essential for studying the behavior of young males because they do not confine themselves to a particular land area as do adult males and females with pups. The young males move readily from one land area to another making it very difficult to keep an accurate record of their movements.

The transmitters have a range of about one-half mile and monitoring extended a little over three months. Each of the transmitters had a different frequency and pulse repetition permiting the scientists to identify the individual seals.

Seals equipped with the radios were between two and five years old and weighed 50 to 115 pounds. Full grown males weigh 400 to 600 pounds. The scientists planned to recover the harnesses from the seals; however, a saltwater corrosion mechanism on the harness will release it if not recovered, preventing any adverse long-term effect on the animal's movements.

Minced Fish May Soon Be Available to Homemakers

Fish as easy and convenient to use as hamburger may soon be available to the homemaker, according to the Department of Commerce's National Oceanic and Atmospheric Administration. Experiments conducted by NOAA's National Marine Fisheries Service's Utilization Research Center at Gloucester, Mass., show that minced fish can be produced that has the same texture as hamburger. It has the same nutritional value as beef, is lower in fat content, and is cheaper to produce since it can be made from a variety of fish species that are not being used to the fullest extent. Joe Mendelsohn, Project Director at the NMFS Center, said that minced fish in 1-pound frozen blocks is a highly acceptable market form and has commercial potential for both retail and institutional trades.

In the early 1970's a new technology was begun with the introduction of a meat-bone separator machine to the fishing industry. The machine removes the bones, skin, and scales from fish that have been headed and eviscerated and produces fish flesh resembling hamburger. It produces more edible flesh from a fish than can be obtained by hand or machine filleting, thereby making it cheaper to produce. As a result of this technology and a shortage of whole fillets for conventional frozen blocks, fish processors began using minced fish to produce 13.5- to 18.5-pound blocks which they use to produce fish sticks and portions.

"Because of the previous success experienced in processing large blocks into sticks and portions, the market potential for a small I-pound frozen fish block suitable for home use was investigated," said Mendelsohn. "A package would contain enough fish for one meal which the housewife could use in tested recipes provided on the package or in recipes she might develop herself."

A variety of products including fish cakes, chowders, salads, fish in spaghetti or marinara sauce, fish and rice, fish stew, and fish and beef were prepared at the Utilization Research Center, tested by families, and found to be highly acceptable. Those testing the fish commented on the convenience of the blocks and the absence of a "fishy" smell.

"The 1-pound frozen block of

minced fish is adaptable for use in most fish recipes and as an extender for hamburger," said Mendelsohn. "It is convenient, requires no preparation for use directly into many recipes, and is very economical when compared to other fish products," he concluded.

U.S. FISHERY PRODUCT IMPORTS REPORTED FOR 1974

In 1974, the United States imported 2.2 billion pounds of edible fishery products valued at slightly under \$1.5 billion. Japan and Canada accounted for almost 50 percent of imports by quantity, and over 35 percent by dollar value (Tables 1 and 2).

U.S. imports from North America and Europe declined from 1973 to 1974 in both quantity and value. Imports from South America and Africa declined in quantity, but increased in value. Imports from Asia and Australia/Oceania increased in both quantity and value (Table 3).

In 1974, the total quantity of fishery imports was 8.5 percent smaller than

| Table 1.—U.S. fishery imports, by quantity, (percentages in declining order). | | | , 1974 |
|--|------|---------------|--------|
| | Per- | | Per- |
| Country | cent | Country | cent |
| Japan | 30.5 | Malagasy Rep. | 0.8 |
| Canada | 19.4 | Australia | 0.7 |
| Mexico | 4.7 | Mauritius | 0.7 |
| Iceland | 4.3 | Portugal | 0.7 |
| Norway | 3.1 | Ivory Coast | 0.6 |
| Denmark | 2.9 | Canary Isl. | 0.5 |
| South Africa | 2.6 | Venezuela | 0.5 |
| Spain | 2.0 | Poland | C.4 |
| Taiwan | 2.0 | Nicaragua | 0.4 |
| Rep. of Korea | 1.8 | Guyana | 0.3 |
| India | 1.6 | Indonesia | 0.3 |
| Brazil | 1.2 | Colombia | 0.3 |
| Ecuador | 1.1 | El Salvador | 0.3 |
| Philippines | 1.1 | Netherlands | 0.3 |
| Panama | 1.0 | New Zealand | 0.3 |
| U.K. | 1.0 | Honduras | 0.2 |
| Br. Pac. Isl. | 0.9 | Others | 11.5 |
| | | Total | 100.0 |

Table 2.—U.S. fishery Imports, by value, 1974 (percentages in declining order).

| | Per- | | Per- |
|---------------|------|---------------|-------|
| Country | cent | Country | cent |
| Japan | 20.0 | New Zealand | 1.0 |
| Canada | 15.8 | Nicaragua | 1.0 |
| Mexico | 11.5 | Colombia | 0.9 |
| Iceland | 4.8 | Guyana | 0.8 |
| Australia | 3.7 | Indonesia | 0.7 |
| Norway | 3.4 | El Salvador | 0.7 |
| South Africa | 2.9 | Philippines | 0.6 |
| Denmark | 2.8 | Portugal | 0.6 |
| India | 2.6 | Br. Pac. Isl. | 0.6 |
| Brazil | 2.4 | Honduras | 0.6 |
| Panama | 1.9 | Mauritius | 0.5 |
| Taiwan | 1.7 | Netherlands | 0.5 |
| Spain | 1.4 | Poland | 0.4 |
| Ecuador | 1.2 | Malagasy Rep. | 0.4 |
| Rep. of Korea | 1.2 | Ivory Coast | 0.4 |
| Venezuela | 1.2 | Canary Isl. | 0.4 |
| U.K. | 1.1 | Others | 11.3 |
| | | Total | 100.0 |

in 1973; the total value of imports, however, increased by 5.6 percent during the same period.

The United States in 1974 exported 178 million pounds of edible fishery

products valued at \$195 million. This represented a decrease of over 25 percent in quantity and almost 20 percent in dollar value from the 1973 totals. Source: Fisheries of the United States, 1974.

Table 3.-Imports of edible fishery products, by continent and country of origin, 1973 and 1974.

| | 1973 | | 1974 | |
|-----------------------------|-----------|-----------|-----------|-----------|
| Continent and country | 1,000 lb | \$1,000 | 1,000 lb | \$1,000 |
| North America | | · • | | - |
| Canada | 525,700 | 301,623 | 428,242 | 233,152 |
| Mexico | 106,540 | 127,985 | 104,445 | 169,805 |
| Panama | 26,163 | 20.623 | 23,335 | 27,436 |
| Nicaragua | 7,528 | 10.697 | 9.016 | 15,030 |
| El Salvador | 5,918 | 8.011 | 6,109 | 9,686 |
| Honduras | 3 966 | 5 787 | 4 425 | 8 945 |
| Other | 60,495 | 39,114 | 47,681 | 35,706 |
| Total | 736,310 | 513,840 | 623,253 | 499,760 |
| South America | | | | |
| Brazil | 24,400 | 29,635 | 25,976 | 35,009 |
| Ecuador | 24,451 | 16,231 | 25,250 | 18,015 |
| Venezuela | 12,110 | 14,598 | 10,277 | 17,575 |
| Colombia | 7,241 | 10.051 | 6,979 | 12,997 |
| Guyana | 10.458 | 15,709 | 7.376 | 12,122 |
| Other | 81,219 | 30,605 | 66,264 | 26,083 |
| Total | 159,879 | 116.829 | 142,122 | 121,801 |
| Europe | | | | |
| Iceland | 115,408 | 72,569 | 94,902 | 70,222 |
| Norway | 106,565 | 60,736 | 68,302 | 50,059 |
| Denmark | 83.838 | 50.815 | 63.532 | 41.611 |
| Soain | 19.225 | 13.669 | 43.385 | 20.415 |
| United Kingdom | 35.078 | 24 169 | 22 495 | 16 537 |
| Portugal | 19 374 | 11 702 | 15 010 | 9.216 |
| Nothorlanda | 11 145 | 10,657 | 6.027 | 3,210 |
| Retrands | 10,140 | 10,057 | 0,037 | 7,000 |
| Other | 46,535 | 15,458 | 20,752 | 5,666 |
| Total | 447,607 | 265,191 | 343,954 | 226,633 |
| Asia | | | | |
| Japan | 619 488 | 237 074 | 675 525 | 295 864 |
| India | 25 216 | 237.074 | 26 241 | 293,004 |
| China Depublic of (Teimer) | 20,310 | 22,740 | 40,400 | 30,271 |
| China, Republic of (Talwan) | 44,999 | 24,170 | 42,432 | 24,005 |
| Korea, Republic of | 24,037 | 11,113 | 39,220 | 17,990 |
| Indonesia | 9,189 | 6,078 | 7,060 | 9,912 |
| Philippines | 24,314 | 8,341 | 24,611 | 9,339 |
| Other | 58,585 | 41,188 | 49,469 | 55,994 |
| Total | 806,528 | 350,716 | 874,664 | 451.965 |
| Australia and Oceania | 10.000 | 10.000 | 15 500 | 54.007 |
| Australia | 19,603 | 43,980 | 15,563 | 54,297 |
| New Zealand | 5,311 | 13,268 | 5,729 | 15,431 |
| British Pacific Islands | 20,648 | 9,511 | 19,402 | 9,111 |
| Other | 31,616 | 10,815 | 45,418 | 16,495 |
| Total | 77,178 | 77,574 | 86,112 | 95,334 |
| Africa | | | | |
| South Africa, Republic of | 66,016 | 35,493 | 56,756 | 43,447 |
| Mauritius | 13,575 | 6,853 | 15,027 | 7,400 |
| Malagasy Republic | 15,824 | 5,185 | 16,617 | 5,507 |
| Canary Islands | 8,146 | 3,715 | 10,299 | 5.442 |
| Ivory Coast | 12,454 | 3,620 | 12.281 | 5.283 |
| Other | 72,676 | 19,468 | 30,912 | 15,346 |
| Total | 188,691 | 74,334 | 141,892 | 82,425 |
| Grand total | 2,416,193 | 1,398,484 | 2,211,997 | 1,477,918 |

Source: Department of Commerce, Bureau of the Census.

Outstanding NMFS Papers Are Honored

Special Achievement Awards of \$300 each have been approved for National Marine Fisheries Service authors of the two Outstanding Publications of Calendar Year 1973 in the *Fishery Bulletin* and *Marine Fisheries Review.* The selections, made by the NMFS Publications Policy Board, must constitute an outstanding original scientific work which contributes to accomplishing the NMFS mission.

The second Special Achievement Award went to Donald R. Whitaker for his paper "Why the Cod Shortage? What are the Alternatives?" in the November 1973 issue of *Marine Fisheries Review* (Volume 35, Number 11). He is with the Fishery Products Research and Inspection Division, NMFS, NOAA, Washington, D.C.

Receiving Honorable Mention for Fishery Bulletin papers were William W. Fox, Jr. for "A General Life History Exploited Population Simulator with Pandalid Shrimp as an Example" (Volume 71, Number 4) and Wesley J. Ebel, Donn L. Park, and Richard C. Johnson for "Effects of Transportation on Survival and Homing of Snake River Chinook Salmon and Steelhead Trout" (Volume 71, Number 2). William N. Lindall, Jr. won Honorable Mention for his paper "Alterations of Estuaries of South Florida: A Threat to its Fish Resources" in the October 1973 issue of Marine Fisheries Review (Volume 35, Number 10).

U.S. Fish Catch Up, Prices Down in 1974

Commercial fishery landings at U.S. ports by U.S. fishermen increased 4 percent in 1974 over 1973, according to

preliminary figures released by the National Oceanic and Atmospheric Administration (NOAA). The Commerce Department agency reported, however, that the 4.9 billion pounds, worth \$898.5 million, was about 1 percent less in value than the 1973 landings.

Larger landings of fish for industrial use was the major reason for the increase in volume while a sharp decrease in the price fishermen received for higher valued shellfish and a decline in industrial fish prices contributed to the slight decrease in total value. The data collected by NOAA's National Marine Fisheries Service indicates the per capita consumption of fishery products dropped from the record high of 12.7 pounds in 1973 to 12 pounds in 1974. The 1974 per capita consumption remained slightly higher than the past 5-year average of 11.9 pounds, however.

Total imports of fishery products reached a record high of \$1.69 billion, up 7 percent over the previous record high of \$1.58 billion set in 1973. The value of fishery products processed in the United States from both domestic and imported raw materials was a record \$2.8 billion, up 2 percent from 1973. Edible fresh and frozen products accounted for 44 percent, edible canned products 39 percent, cured products 3 percent, and industrial products 14 percent of the total processed.

The nation's most valuable fishery was the domestic shrimp industry which accounted for 20 percent of the total off-vessel value of U.S. landings. The value of shrimp landings, \$177.9 million, was 19 percent less than the 1973 record value, however.

Tuna landings of 386.2 million pounds at U.S. ports were 44.1 million pounds (13 percent) more than in 1973. Landings of all species except bluefin tuna increased sharply. An additional 165 million pounds of tuna were landed by U.S. fishermen in Puerto Rico.

The 1974 top 10 ports with commercial landings in millions of pounds were:

| San Pedro, Calif. | 438.9 |
|------------------------------|-------|
| Cameron, La. | 405.2 |
| Empire, La. | 243.8 |
| Pascagoula-Moss Point, La. | 241.8 |
| Dulac-Chauvin, La. | 206.1 |
| Morgan City, La. | 141.5 |
| Gloucester, Mass. | 121.0 |
| Kodiak, Alaska | 112.9 |
| Beaufort-Morehead City, N.C. | 78.8 |
| San Diego, Calif. | 78.7 |

The top 10 ports in terms of value of landings in millions of dollars were:

| San Pedro, Calif. | 78.8 (record) | |
|---------------------|---------------|--|
| Kodiak, Alaska | 29.1 | |
| Brownsville, Tex. | 23.2 | |
| San Diego, Calif. | 22.1 | |
| New Bedford, Mass. | 21.2 | |
| Aransas Pass, Tex. | 19.8 | |
| Cameron, La. | 18.7 | |
| Dulac-Chauvin, La. | 16.8 | |
| Astoria, Ore. | 13.7 | |
| Bayou La Batre, Al. | 13.1 | |

Details of these and other preliminary data dealing with U.S. fisheries are included in *Fisheries of the United States, 1974.* Single copies may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, for \$1.70.

NMFS Slates Marine Recreational Fishing Survey in Southeast

The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) has initiated a survey to determine the number of saltwater recreational fishermen in the Southeast United States. The survey is being done by Chilton Research Services under contract to NOAA's National Marine Fisheries Service and is being conducted in the eight coastal States of the Southeast and Gulf of Mexico, beginning with North Carolina and ending with Texas.

In addition to an estimate of the number of recreational fishermen in the area, the survey will provide an estimate of the number and pounds of fish and shellfish caught in each State, the use made of that fish and shellfish, the number of days spent fishing, and expenditures by saltwater recreational fishermen. Three techniques will be used in the survey: (1) a telephone screening to establish a sample of saltwater recreational fishermen; (2) a questionnaire sent to a sample of the fishermen identified in the screening survey asking detailed questions on numbers and pounds of fish caught by species, amount of time spent fishing, and other information; and (3) a telephone followup to individuals who do not return the questionnaire asking the same questions that are asked on the mail questionnaire.

Results of the telephone screening part of the survey are expected to be

published soon and the final results of the complete survey in the spring of 1976. Information gained from the survey will be used in cooperative State/Federal efforts to develop fishery management programs. Details of the survey can be obtained by contacting Statistics and Market News Division, National Marine Fisheries Service, NOAA, Washington, DC 20235.

Current Fishing Industry Market Prices Available

Fishery Market News Reports are now available by subscription according to the National Oceanic and Atmospheric Administration's National Marine Fisheries Service. The reports publish pertinent information on current wholesale market prices, exvessel prices, landings, imports, and movements of fishery products both in the United States and abroad. The data are gathered daily by the Commerce Department agency, through telephone and personal contact with key fishing ports and markets for fishery products.

In addition to marketing information, Fishery Market News Reports contain news items of interest to people in the fishing industry. The reports are published in five cities: Boston; New York; New Orleans; Terminal Island, Calif.; and Seattle, on Monday, Wednesday, and Friday. In addition to the daily information, a weekly summary for each of the cities is published on Fridays.

The New York report specializes in wholesale prices for fresh and frozen fishery products traded in New York merchandising centers. The Boston report carries the Boston fish auction prices, the New Bedford auction prices, exvessel prices, landings in selected New England ports, Chicago market receipts, and frozen wholesale prices for the New England and Chicago areas. The New Orleans report carries Gulf shrimp landings and exvessel prices and the Terminal Island report specializes in data pertaining to the tuna industry. The Seattle report contains information on the halibut, salmon, groundfish, king crab, and shrimp fisheries in the northwestern United States as well as Alaska. The Seattle report also publishes data on British Columbia fisheries.

Annual subscription rates for three reports per week plus the weekly summary is \$35.00 per report (i.e., Boston, New York, New Orleans, Terminal Island, or Seattle). The weekly summaries are available for \$15.00 per year per report.

Subscriptions may be started by making checks or money orders payable to the Department of Commerce, NOAA, and mailing them to the U.S. Department of Commerce, NOAA, National Marine Fisheries Services, F2x1, Room 404, Page Building 2, Washington, DC 20235.

Foreign Fishery Developments

Aid Eyed for Italy's Ailing Marine Fishery

During the past 2 years the Italian high-seas fisheries have been facing increasing difficulties, particularly because of the trend toward the extension of fisheries jurisdictions off West Africa, the traditional grounds for Italian fishing vessels, according to Mario Iandoli, President, Italian National Federation of Fishery Enterprises (FEDERPESCA), writing in La Pêche Maritime. This development has forced the Italian fleet to travel to more distant and less abundant grounds off North America and Southern Africa. The Italian fisheries are becoming noncompetitive because of declining catch rates and the lengthening of the distances between home ports and overseas fishing grounds. The time required for each trip has tripled (from 40-50 days to 150-160 days) and costs have increased sharply, reducing profits and causing losses.

Two years ago, 95 Italian vessels fished the Atlantic. The development of such a large fleet had been made possible by assistance from the Government, which gave a 130-150 million lire (US\$200,000-220,000) subsidy for each high-seas freezer trawler and facilitated the payments on up to 50 percent of the construction costs.

Today, the total number of Italian high-seas fishing vessels has decreased to 65. The vessels having small gross tonnage (particularly those having less than 600 GRT) can no longer operate profitably. Their costs are almost equal to those of larger vessels while their catches are much less. Many such vessels have been sold or were decommissioned.

Several proposals have been made to assist the ailing fishing industry. Joint operations with West African coastal countries have been suggested. Such ventures would especially benefit Italian shipyards and fishing gear factories, and would also permit Italian fleets to continue operations along the West African coast and an Italian entry into African fishery markets. This option would require considerable investments. The Italian government will have to study the possibility of financial and technical assistance to the industry as is being done by the Governments of France, Spain,

Portugal, Greece, Norway, and Japan.

A proposal to build up an Italian fleet of 100 large fishing vessels with a total gross tonnage of 160,000-200,000 tons has been made. The emphasis on larger vessels with an average of 1,600-2,000 GRT was made because vessels of lesser tonnage are no longer profitable. The annual catch could then double from 75,000 to 150,000 metric tons and would be worth over 30 billion lire (\$45 million). This would help to eliminate deficit imports of fish and other fishery products.

The restructuring of the Italian fishing fleet, however, requires a plan of coordination under which the Government provides at least a part of the investments especially in the form of easy credit. Large and effective grants must be made to compensate partially for the disadvantages resulting from longer trips to grounds very far from Italy.

Urgent action is necessary. Delivery contracts for fish cannot be deferred the processing industry must continue to produce, or it runs the risk of depriving the market of an important source of food, and causing strikes. Positive action would help Italian shipyards, repair yards, and related industries.