



## International

### INTERNATIONAL NORTH PACIFIC FISHERIES COMMISSION

FIRST MEETING AT WASHINGTON: The International North Pacific Fisheries Commission opened its first meeting in Washington on February 1, 1954, a State Department press release states. The Commission was established pursuant to a Convention between Canada, Japan, and the United States, signed in Tokyo on May 9, 1952. The Convention is the first international agreement made by Japan as a sovereign nation after the war. It is concerned with the conservation of the high seas fishery resources of the North Pacific Ocean.

The Canadian Commissioners are Stewart Bates, Deputy Minister of Fisheries of Canada; John Murdoch Buchanan, President, British Columbia Packers, Ltd.; James Cameron, Pender Harbour, B.C.; and Roger Thompson Hager, President, The Canadian Fishing Company, Ltd. The Canadian group is led by J. Watson MacNaught, the Parliamentary Assistant to Canada's Minister of Fisheries.

The Japanese Commissioners are Ryuji Takeuchi, Minister Plenipotentiary, Charge d'Affaires ad interim of Japan, Washington, D.C.; Iwa Fujita, Vice Chairman, Japan Fisheries Association, Chairman, Japan Whaling Association; and Kyuhei Suzuki, President, Japan Marine Products Company, Ltd.

The United States Commissioners are Edward W. Allen, Attorney of Seattle, Washington; Milton E. Brooding, Director of Industry Relations, California Packing Corporation, San Francisco, California; and John L. Farley, Director, Fish and Wildlife Service, Department of the Interior, Washington, D. C.

This first meeting was organizational in nature, and the Commissioners were concerned with the development of operational machinery to enable them to put into effect the provisions of the Convention. Early in the meeting the Commission elected the following officers who will serve for a term of one year:

Chairman - Stewart Bates of Canada  
Vice Chairman - Iwa Fujita of Japan  
Secretary - Edward W. Allen of the United States

These officers and the other Commissioners discussed such organizational matters as the selection of an Executive Director and staff, selection of a headquarters site, rules of procedure, financial regulations, and budgets.

The scientific purposes of the Convention are of prime importance and involve problems of great complexity. The scientific advisers to the Commission, among whom are some of the foremost experts in the field of fishery conservation in Canada, Japan, and the United States, have begun discussions of the research problems which may come before the Commission.

The Commission on February 5 decided to locate its headquarters for the time being at the University of British Columbia in Vancouver, B.C. The Commission accepted the offer of these temporary facilities from the University of British Colum-

bia. Similar offers from the Japanese Government, the Canadian Government's fishery research station at Nanaimo, B.C., and the University of Washington at Seattle were declined with the thanks of the Commission, a February 5 release from the State Department reports.

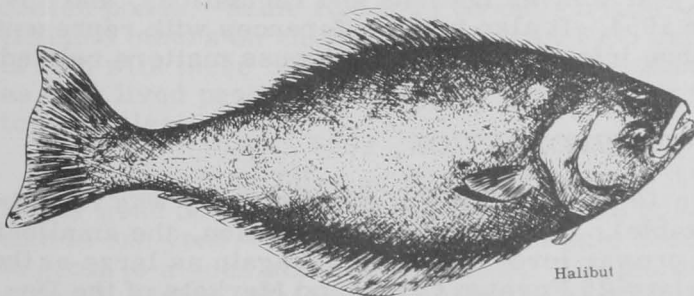
The Commission's headquarters will be located on the edge of the Pacific Ocean, the area with which it is concerned, close to several Canadian and United States fishing ports of first importance. The headquarters will also be close to several major marine research institutions studying the fisheries of the North Pacific Ocean. These are the Canadian Government's research station at Nanaimo, B.C.; the International Pacific Salmon Fisheries Commission at New Westminster, B.C.; the International Pacific Halibut Commission in Seattle; the Fisheries Research Institute of the University of Washington in Seattle; and the Pacific Salmon Investigations of the U. S. Fish and Wildlife Service in Seattle.

After the Commission discussed and completed its organizational structure, it turned its attention to the consideration of the broad aspects of its responsibilities in the field of research. Rules of procedure were adopted and two important standing committees established. A Standing Committee on Finance and Administration, consisting of one Commissioner and one Adviser each from Canada, Japan, and the United States, were set up to advise the Commission on financial and administrative matters. A Standing Committee on Biology and Research, consisting of one Commissioner and two scientists each from Canada, Japan, and the United States, was also established to advise the Commission on the research problems laid before it in the provisions of the International Convention for the High Seas Fisheries of the North Pacific Ocean.

The scientific advisers to the several commissioners met continually during the week, discussing the fishery research problems of the North Pacific Ocean, the research programs which each of the three countries now has in being, and research methods and facilities which might assist the Commission in its work.

#### INTERNATIONAL PACIFIC HALIBUT COMMISSION

PACIFIC COAST HALIBUT FISHERY REGULATIONS FOR 1954 PROPOSED: The Pacific Coast halibut fishing season this year will open on May 16, according to the



general fishing regulations adopted for the 1954 season by the International Pacific Halibut Commission at its annual meeting in January at Seattle, Wash. The regulations are not effective until promulgated by the Canadian and United States Governments. In 1953 the season opened on May 17, in 1952 on May 14, and in 1951 and 1950 on May 1.

The Commission after a review of the significant evidence submitted by its staff, considers it possible to take a further step toward attaining "maximum sustained yield." It proposes increasing the catch limits in certain of the fishing areas in the North Pacific, and adjusting the fishing seasons to permit certain of the stocks of halibut to be fished later in the season than has been the case for the past several years. In the main season in Area 2, the Commission is recommending to the two Governments an increase of one million pounds over the 1953 season. In addition, extending the fishing season to later in the summer will permit a further increase in the total 1954 catch.

Accordingly, the general fishing regulations for the 1954 season adopted by the Commission for recommendation to the Canadian and United States Governments are as follows:

1. Changes in boundaries of the fishing areas to be:  
Former Areas 2A, 2B, and 2C are to be incorporated as one area, i. e., Area 2. The existing Area 4 (the Bering Sea) is to be incorporated into Area 3B. The northern boundary of Area 1A will be Hecate Head instead of Cape Blanco.
2. Catch limits for the 1954 season to be:  
Area 2--26,500,000 pounds (1953 catch limit was 25,500,000 pounds); Area 3--28,000,000 pounds (same as in 1953); no catch limits to be established for Areas 1A, 1B, and 3B.
3. The opening date for halibut fishing in all areas established by the Commission to be May 16.
4. Area 1B will close when the catch limit for Area 2 (26,500,000 pounds) will have been reached. Area 3B will close when the catch limit of Area 3A (28,000,000 pounds) will have been reached.
5. In addition to the above open seasons, based on the attainment of the catch limits for Areas 2 and 3A, further fishing seasons will be allowed as follows:  
Area 2 to be reopened on August 1 for a period of 8 days.  
Area 3A and 3B to reopen on August 1 for a period of 10 days.  
Area 3B to again be reopened on August 15 for a period of 25 days. Area 1 to open on May 16 and remain open until the final closure date of Area 3B, i. e., September 9.
6. Notices of closure during the first open fishing season to be 10 days for Area 2 and 18 days for Area 3A.

The new Halibut Convention between Canada and the United States specifically obligates the Commission to endeavor to establish "maximum sustained yield." In addition, the new North Pacific Fisheries Convention between Japan, Canada, and the United States covering the fishing of the north Pacific Ocean throws new serious responsibilities on the International Pacific Halibut Commission.

It is understood that Canada, in recognition of the importance of the situation and the economic soundness of the halibut fishery program, is prepared to grant the necessary increase in appropriation in order to carry out this essential work.

During the meeting the Commission dealt with organizational and administrative matters, reviewed the results of last year's investigations and regulations, and approved an investigational program for 1954. It also held conferences with representatives of the halibut industry to exchange information and to discuss matters related to regulations.

#### WORLD MARINE-OIL PRODUCTION, 1953

The world output of marine oils in 1953, estimated at 890,000 tons, was roughly 10 percent smaller than in 1952 (see table). The estimated production, the smallest since 1950, was 16 percent below the prewar level although half again as large as the 1945-49 volume, according to the January 25 Foreign Crops and Markets of the Department of Agriculture.

World Marine-Oil Production, 1953 (Estimated) with Comparisons						
Commodity	1953 <sup>1/</sup>	1952 <sup>2/</sup>	1951 <sup>2/</sup>	1950 <sup>2/</sup>	Average	
					1945-49 <sup>2/</sup>	1935-39 <sup>2/</sup>
	(1,000 short tons)					
Whale oil .....	420	460	435	425	280	545
Sperm-whale oil .....	50	80	120	55	40	30
Fish (including liver) oil ..	420	435	455	380	275	480
Total .....	890	975	1,010	860	595	1,055

<sup>1/</sup>Preliminary.

<sup>2/</sup>Revised.

Whale-oil production in 1953 was down from 1952 mainly because of the reduced whale catch during the Antarctic pelagic (open sea) season. The reduced outturn of sperm oil reflects the low prices for oil in relation to production costs that tended to discourage sperm whaling.

Fish-oil production in 1953 was down primarily because indicated production in Norway, the world's major producing country, was reduced. However, in the United States the output was greater than in 1952.

## FOOD AND AGRICULTURE ORGANIZATION



INDO-PACIFIC FISHERIES COUNCIL MEETS IN BANGKOK: The role of plankton in fishery development was one of a number of topics discussed at the Fifth Meeting of the Indo-Pacific Fisheries in Bangkok, Thailand, January 22-February 5, 1954. Others included fish culture, various problems related to marine fisheries, the seaweed industry, and the need to set up a regional center for training master fishermen.

Hormones Suggested as Stimulant for Spawning in Indo-Pacific Ponds: Sex hormones may be used to stimulate spawning of carp. Certain species of carp from India and China refuse to spawn in confined waters, and sex

hormones may be used to stimulate spawning, the Indo-Pacific Fisheries Council was told at this meeting. A Food and Agriculture Organization program is to breed more fish in order to increase the supply of protein-rich food for hungry thousands in Asia.

In Brazil, it was reported, fisheries experts have achieved some success in using sex hormones on another species of fish. Delegates from Japan and India reported similar experiments in their countries, but said it was still too early "to draw any conclusions from the results."

The Fisheries Council also discussed another suggestion for making the best use of fish ponds. Some fish feed on the surface, others on the bottom; some on vegetation and others on animal matter. An FAO expert has proposed that various species of fish with these different characteristics should be put in the same pond--so long as they lived peacefully together. In this way the resources of the pond would be used to the fullest extent.

The Amazing Tilapia: A popular fish in Southeast Asia is the amazing tilapia. Under good conditions one pair of matured tilapia may produce as many as 10,000 fish in one year. Moreover, it takes only about four months for the young fingerlings to grow to a good size for the table. Tilapia originally came from the tropical waters of South Africa, states a pamphlet by an FAO expert. About 20 years ago, a few tilapia were introduced into Indonesia where they grew so fast and reproduced so quickly that the Indonesian Government has paid great attention to their culture. Since World War II, this fish has provided thousands of tons of good-quality protein food every year.

About three years ago, the Royal Thai Fisheries Department imported a few tilapia from Penang, and two years ago, another 200 were imported from Singapore. Again, tilapia boomed. Now, the FAO expert has helped the Government of Thailand build 16 new fish ponds and remodel 10 others in experiments with the fast-breeding tilapia and in the distribution of fingerlings to farmers for stocking rice paddies, ponds, and swamps.



The FAO expert says that tilapia live well in many kinds of water, require no particular feed, and that their meat is "firm and delicious with few bones, and excellent for fresh consumption."

Another interesting fish experiment reported by the FAO recently from the Southeast Asia region was in Indonesia. There, it was thought that ponds could be freed of malarial parasites by combining two species of fish, and that production would be increased by 4.4 million pounds a year.

Training School Proposed for Fishermen: At the Bangkok Indo-Pacific Fisheries Council meeting, it was suggested that the Council set up a regional training school for master fishermen, as a step towards increased mechanization of the fish-  
ing industry.

Shrimp in the Far East: Shrimp boats and shrimp also entered the Council's discussions. It appears that shrimp prefer to live over muddy bottoms and that in the Far East almost all "shrimping" is carried out inshore. The result is that the shrimp boats are obstructed by the mud. It was suggested that devices developed in Australia and the United States to deal with this problem might help out in the Far East.

The Meeting was opened by Field-Marshal Phin Chunahavan, Minister of Agriculture and Deputy Prime Minister of Thailand.

The meeting was attended by 13 delegates, 9 alternates, 16 advisers, and 5 observers (one of whom was acting in a dual capacity)--a total of 43. The countries represented were: Australia, Burma, France, India, Indonesia, Japan, Republic of Korea, Netherlands, Pakistan, Thailand, United Kingdom (for Federation of Malaya, Singapore, North Borneo, Sarawak, and Hong Kong), United States, and Vietnam.

At the Fifth Meeting, Technical Committee I (Hydrology and Biology) consisted of three panels: Panel "A" - Inland Fisheries; Panel "B" - Sea Fisheries; and Panel "C" - General Biology, Hydrology and Miscellaneous Fisheries. Technical Committee II (Technology) was divided into three panels also: Panel "A" - Craft and Gear; Panel "B" - Food Technology; and Panel "C" - Socio-Economics, Marketing and Statistics.

Some of the resolutions of general interest adopted by the Council were:

**RESOLUTION NO. 2:** In view of the fact that great changes have occurred in faunal distributions throughout the world's seas, as evidenced especially by changes in the abundance of sardine-like fishes in many areas, including the Mediterranean, the Pacific and Indian Oceans, as well as changes in the distribution of the cod-like and tuna-like fishes, and others, in the Atlantic and elsewhere; and since the causal factors associated with these faunal changes with the changes in hydrological and meteorological conditions is little understood at present,

The Council Resolves:

- (1) That Member Governments be invited to give consideration to these matters as being of major significance in relation to world fisheries production.
- (2) That Member Governments be requested to explore means by which evidence of such faunal changes and phenomena related thereto might be fully documented.
- (3) That the Fisheries Division of FAO be requested to explore the possibilities of obtaining similar information from Governments and organizations

outside the immediate zones of interest of the Indo-Pacific Fisheries Council.

**RESOLUTION NO. 3:** In view of the intensity of national programmes for the development of both primary and secondary industries, and as the unwise discharge of waste products into rivers, estuaries and bays appears frequently to have resulted in serious damage to commercial fish stocks by pollution of the water or by other deleterious changes in the aquatic environment.

The Council Resolves:

That the attention of Member Governments be drawn to the information on this subject already assembled by the Council;

That Member Governments be requested to explore ways and means for the further study of actual extent of damage which may be caused to fish populations by industrial or other pollution and suitable remedial action, and further,

That the advice of competent workers as to methods for avoiding or overcoming such damage should be given consideration when plans for urban, rural and industrial development are under review.

Further, the Council is aware that certain recommendations on this subject were made by the FAO Regional Meeting on Land Utilization in Tropical Areas of Asia and the Far East and the Islands of the Pacific convened by the Food and Agriculture Organization of the United Nations in Ceylon, 1951, and suggests that Member Governments may consider it desirable to bring the views of the Council to the attention of national Land Utilization Committees where these exist.

**RESOLUTION NO. 4:** The Council feels greatly concerned about the possible adverse effects on the inland fisheries of the Indo-Pacific Area of water development projects and endorses the active policy pursued by the Executive Committee in cooperating with the Flood Control Bureau of ECAFE of the United Nations in the matter of fisheries requirements in connection with multi-purpose river basin development. In view of the fact that insufficient information regarding the biology of riverine fisheries of the Indo-Pacific Region is available and that some of the fisheries measures such as fish ladders which are in use in Western countries have often been found to be unsuitable to the rivers of this area,

The Council Resolves:

That the attention of Member Governments be drawn to the urgent need for conserving and exploiting the fishery resources associated with river basin projects by rectifying the adverse effects on the resources caused by dams and other ob-

The Sixth Meeting of the Council is scheduled for October 1955 in Tokyo, Japan. It was resolved that only one symposium be held in connection with the Sixth Meeting and that the subject be on the various aspects of the shrimp fisheries, including trawling in deep and shallow waters, life history, and shrimp-paste manufacture. It was also suggested that, wherever possible, models of gear and samples of products be exhibited by authors.

#### ICELAND-POLAND TRADE AGREEMENT INCLUDES FISHERY PRODUCTS

A trade agreement between Iceland and Poland, involving fishery products, was signed in Reykjavik on January 27, extending the 1949 payments agreement to cover calendar year 1954.

The commodity list for 1954 is considerably expanded and diversified as compared to 1953. Icelandic exports of salted and frozen herring valued at £225,000 (US\$630,000) in 1953 were considered equivalent to 2,360 metric tons of frozen herring and 1,500 metric tons of salted herring. These quantities were increased for 1954 to 3,000 metric tons of frozen herring and 1,000 metric tons of salted herring. The quantity of Icelandic fish meal exports remain the same--2,000 metric tons.

Three new fishery products items were included in the list of Iceland's exports: (1) medicinal cod liver oil--1,300 metric tons; (2) industrial oil (fish oil)--500 metric tons; and (3) frozen fish fillets--no quantity specified.

Poland's list of commodities for export to Iceland does not include any fishery products, the U. S. Legation at Reykjavik reported on February 3.

structions through preventive, remedial, and restoratory measures and developing fish production in the reservoirs and ancillary waters,

To achieve this the fishery requirements relating to each dam should be determined by careful survey and experimentation by senior fishery biologists and engineers, without the indiscriminate adopting of conventional fish ladders and other measures, the suitability of which to Asiatic conditions is questionable, and the findings arising from the investigations should be implemented.

**RESOLUTION NO. 7:** As mechanized gear is being introduced into many countries of the Indo-Pacific area and the absence of suitably trained personnel for operating this gear is proving a serious handicap to fishery projects requiring the use of powered vessels, the Council is of the opinion that there is an urgent need for the provision of suitable facilities within the area to provide the necessary trained personnel.

Therefore the Council Resolves:

That the Food and Agriculture Organization be requested to take urgent steps for the establishment within the Indo-Pacific area of center (s) for training in mechanized fishing on a sub-regional basis, when possible taking advantage of the facilities existing in certain countries and when necessary seeking close cooperation with other international or intergovernmental agencies.



## Australia

**CONSUMPTION OF FISHERY PRODUCTS:** The total Australian fish catch during 1952/53, (July-June) was 73.0 million pounds landed weight, about 14.1 percent or 9.0 million pounds more than in 1951/52. Imports of fish and shellfish amounted to 9.7 million pounds as compared with 16.8 million pounds the previous year; and exports were negligible as usual. Canning production was between 3 and 4 percent larger. No information is available on frozen fish inventories, but frozen fish are expensive to store and it is believed that changes in these stocks are of minor importance. It seems probable that per-capita supplies of fresh fish were about the same in 1952/53 as in 1951/52, and that the present more liberal import policy will result in larger imports and slightly larger per-capita supplies during 1953/54 (see table).

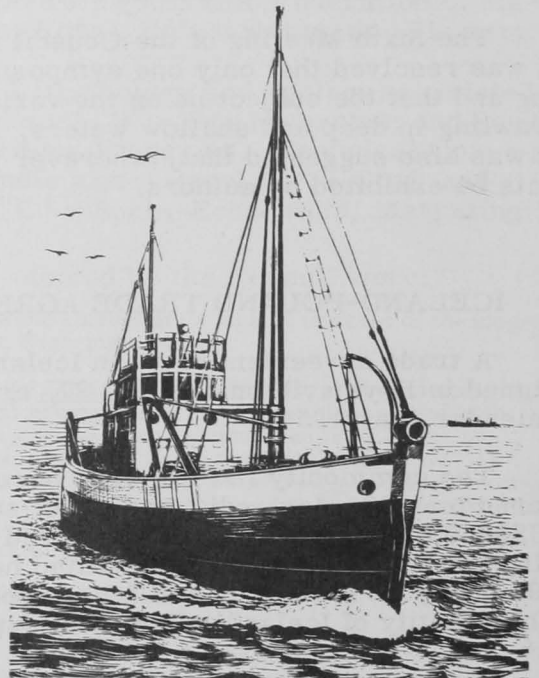
Australia's Available Supplies of Fishery Products (Edible Weight), 1951/52-1953/54			
Item	1953/54 <sup>1/</sup>	1952/53 <sup>2/</sup>	1951/52
	(Pounds per capita) . . . .		
Fresh fish . . . . .	5.7	5.6	5.6
Shellfish . . . . .	0.6	0.6	0.6
Cured fish (smoked and salted) . . . . .	0.9	1.0	1.0
Canned fish and shellfish:			
Domestic . . . . .	0.7	0.7	0.7
Imported . . . . .	1.9	1.4	2.6
Total . . . . .	9.8	9.3	10.5

<sup>1/</sup>Forecast.      <sup>2/</sup>Estimated.

Production of crustacea (crayfish, shrimp, and crabs) was 8.6 percent larger in 1952/53 than a year earlier and aggregated 19.9 million pounds. Oyster production was 19 percent larger. Imports were negligible, but exports increased by 24 percent and totaled 4.2 million pounds. Per-capita supplies were probably about 2 percent larger. Little change is expected during the 1953/54 season.

Imports of canned fish and fish pastes were about 73 percent smaller during 1952/53 than the previous year, due primarily to import controls. Stocks were undoubtedly drawn down, but it appeared probable that per-capita consumption of imported canned fish fell by almost 50 percent during the year. Imports in 1953/54 are about a third greater than a year earlier at the moment, and some recovery in consumption was expected during the current year.

Production of canned fish in Australia was 3.4 percent greater during 1952/53, while exports were 3 percent less. Per-capita consumption probably increased by 3 or 4 percent. Cannery operations in 1953/54 are at a lower level than a year ago, and no increase in per-capita supplies of domestically-canned fish is expected.



Australian trawler.

Imports of smoked fish, which are about 15 times greater than domestic production, were 1 percent less in 1952/53 than a year earlier, while production increased by almost 50 percent. Exports were of little importance. Per-capita sup-



plies of smoked fish were apparently slightly lower, but would still be about 1.0 pound. Imports were lighter during the first of the 1953/54 year, and a drop to 0.9 pound per person during 1953/54 seems probable, according to the American Embassy at Sydney.



## Canada

**HIGH TARIFFS HINDER PURCHASE OF FOREIGN VESSELS:** Dutch shipyard owners have been trying to interest Canadian firms in new fishing vessels, but the 25-percent Canadian customs duty on foreign vessels makes the price situation difficult, a bulletin from the Fisheries Council of Canada states. Canadian shipyards have maintained pressure for such protection. When the St. Lawrence seaway opens up, it is likely that they will seek even greater concessions to counter competition from the vessels of other nations which will then have access to additional Canadian ports. It is believed that such additional protection to Canadian shipyards, if granted, would bear heavily on the Canadian fishing industry.

The Fisheries Council of Canada points out that in order for the Canadian fishing industry to remain competitive with other nations, it is becoming more important that they have an equal opportunity of purchasing the vessels they need wherever they can be obtained at a reasonable cost. This is particularly true in the case of the larger vessels. "Costs of construction in Canada in many areas have reached the point where the return on investment does not justify the expense. Customs duties on foreign-built vessels practically limits construction to the United Kingdom.

"Given an opportunity, the shipyards of other countries could do some business in Canada. This would help to provide such countries with Canadian dollars, many of which would be spent to increasing Canadian exports," states the Council.

However, prior to 1953 imports of new trawlers from countries other than the United Kingdom were banned entirely. A four-year ban on imports of new trawlers from countries other than the United Kingdom was lifted by the Canadian Government early in 1953. At that time the Minister of Fisheries also announced that Canada's used trawler policy was also being revised to allow all members of the General Agreement on Tariffs and Trade to participate in concessions previously granted to Great Britain and the United States.

The most important aspects of the measures, officials said at the time, affected purchases of new trawlers. Fishing licenses, previously only granted on new trawlers built in Canada or Great Britain, are now granted on new trawlers built in any GATT country.

Commonwealth-built and registered trawlers enter Canada duty free. The change in licensing policy does not affect the advantage enjoyed by those purchasing Commonwealth-built and registered trawlers, according to the Minister of Fisheries. When imported, these ships are entitled to duty-free entry. However, there is still a tariff duty of 25 percent ad valorem on a trawler imported from a most-favored-nation country.

The policy announced early in 1953 provides that:

- (a) New trawlers may be imported from the United Kingdom or any most-favored-nation country.
- (b) For each keel laid in Canada, a used trawler may be imported from the United Kingdom or any most-favored-nation country.
- (c) Where only one trawler is required by the applicant, a used trawler may be imported from the United Kingdom or any most-favored-nation country.



## Colombia

**FOREIGN-VESSEL FISHING LEGISLATION DELAYED:** Pending fishing legislation before the Colombian Government, which would permit fishing in Colombian waters by foreign vessels for domestic consumption or exporting the catch by obtaining a Colombian export license, is being delayed due to opposition by small local fishing companies. This delay has impeded efforts of a Colombian fish-canning firm to obtain the services of a purse seiner from a company in the United States, reports a January 14 U. S. consular dispatch from Barranquilla.



## Ecuador

**CONTRACT PROPOSED BETWEEN GOVERNMENT AND FIRM OWNED BY U. S. CITIZEN:** On December 13, 1953, the Quito newspaper Combate published the text of a proposed contract between the Government of Ecuador and a company formed in July under the managership of a United States citizen. This firm has been operating under a provisional permit since that time, purchasing fish from local fishermen at the port of Manta. The proposed contract is understood to have been approved by the Minister of Economy already and it is therefore expected that it will be promulgated in the Official Register in the near future, reports a December 17 U. S. Embassy dispatch from Quito.



A woman dressing "sierra" on the beach. Gills and viscera are removed and deep cuts along the fish from the collar bone to the tail are made for wet salting. Viscera and gills are left on the beach for the birds, goats, dogs, or pigs.

Under the proposed contract the firm will be granted fishing rights in Ecuadoran territorial waters, both continental and insular, for "all maritime species." The company may use "freezerships, fishing boats, and any other type of ship and fishing equipment," including foreign flag boats. Foreign flag boats may be used, however, for only the first two years of the contract and must thereafter be transferred to Ecuadoran registry. It might be noted that the contract as now drafted would appear to permit the use of purse-seining equipment, even though the company evidently plans to use bait boats since the article dealing with the exoneration of equipment from import duties specifies 500 fishing rods among other items.

The company plans to install a freezing plant on shore after the first year of operation of the contract and also to install a plant for the processing and canning of fishery products by the end of the fourth year of operation. The company is liable to a fine of 200,000 sucres (U. S. \$13,000) if it fails to live up to the contract, and the contract obliges the company to invest a minimum of 500,000 sucres (U. S. \$33,000) annually during the first two years of the contract. The contract will run for 10 years. The company has voluntarily bound itself to pay to the Ecuadoran Government one per-

cent of its net profits during the first five years following "the period in which it obtains commercial production" and to pay to the State two percent of such net profits in the following years.

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**FISHERY INSTITUTE FORMED:** A National Fishery Institute (Instituto Nacional de Pesca) is being formed in Ecuador for the purpose of studying, protecting, and stimulating the Ecuadoran fishery industry, a January 20 U. S. Embassy dispatch from Quito reports. The membership will apparently be composed of representatives of the Sociedad Nacional de Galapagos of the American-owned Industria Ecuatoriana Productora de Alimentos (INEPACA) and a fishermen's union. The organization's activities will be financed by members' dues and by any other income which may be obtained.



### France

**CONSUMPTION OF SALT-WATER FISHERY PRODUCTS, 1952/53:** Per-capita consumption of salt-water fishery products in France during 1952/53 amounted to 23.3 pounds as compared with 22.9 pounds in 1951/52 and the prewar period.

The sea fisheries of France in 1952/53 (July-June) produced a total of 315,203 metric tons of salt-water finfish (excludes a production of about 50,000 tons of salt cod) and 13,862 tons of shellfish, according to a December 16 dispatch from the U. S. Embassy at Paris. In the previous year (1951/52), production totaled 306,168 metric tons of salt-water finfish and 10,168 tons of shellfish.

Imports of salt-water fish and shellfish into France (including the Saar) during 1952/53 totaled 58,136 metric tons, while exports amounted to 30,746 tons. Imported marine fats and oil for the same period amounted to 17,965 metric tons and exports totaled 1,269 tons.

Paris and its environs constitute the major concentration of population and food consumption in France. Complete statistics on receipts of fishery products at Paris are not available. An idea of the amount can be obtained at the Paris central market of Les Halles where arrivals of 88,622 metric tons of fishery products were reported for 1952/53, somewhat more than the 85,974 tons which were reported in 1951/52 (direct receipts by wholesalers and retailers not located in Les Halles are not included).



### German Federal Republic

**FIRM SEEKS TO LAND FISH CATCHES AT UNITED STATES PORTS:** The Consulate General in Bremen, West Germany, recently received a request from a Bremerhaven fishing firm seeking assistance in exploring the possibility of landing fish caught on the Grand Banks off Newfoundland at United States ports. The firm is aware of United States restrictions on landings by foreign vessels, but it inquires if the possibility exists of using a U. S. firm to charter its vessels and thereby landing as U. S. flag vessels.

The firm operates a fleet of 51 modern trawlers from the ports of Bremerhaven and Cuxhaven. The largest of these trawlers fish for groundfish and halibut on the Grand Banks of Newfoundland between January and April. They have a

capacity of about 600,000 pounds each. It is the catch from this fishery that the firm seeks to land directly at United States ports.



A 590-ton German steam trawler (capacity, 275 metric tons).

According to the firm's president, it is 51 percent owned by a British-United States firm. The firm claims to be the largest fishing enterprise in Western Germany, with its own fishing fleet, fish-processing and reduction plants, and a chain of 228 retail fish shops throughout Germany.

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SALT-WATER FISH CONSUMPTION DROPPED IN 1952: The per-capita consumption of salt-water fish in West Germany in 1952 was slightly over 25 pounds, compared to the 26½-27 pounds in 1951 and during the late 1930's, reports the Fish Trades Gazette, a British fishery magazine. The highest consumption was during 1948 and 1949, when the average was 33 pounds per person each year. The general improvement in the food situation since World War II explains the drop in fish consumption over the recent four years. Meat, meat products, and other staple foods have become more plentiful and cheaper.

The consumption of salt-water fish is a comparatively recent innovation in large parts of Germany. At the beginning of the century it was consumed only in coastal areas but spread to other parts through the years. Although the present level of consumption is expected to remain steady in the immediate future, fishing interests are hoping to increase their turnover with larger deliveries to the Russian Zone of Germany. Up to now East Germany has not encouraged these "imports." Sales to East Germany in 1952 amounted to only 12,000 metric tons, a 33-percent decline from 1951.

Postwar German recovery is reflected also in the growing catches made possible by the gradual rebuilding of the fishing fleet. In 1946, only 265,000 metric tons of fish were landed by German vessels; in 1948 it was nearly half as much again; while by 1950 a total of 525,000 tons had been reached. The catches for 1951 and 1952--654,000 and 638,000 tons, respectively--are only a little below the prewar total of 687,000 tons. Total supplies, including imported fish and landings by foreign vessels, in 1952 amounted to 747,000 metric tons and sold ex-vessel for over US\$44.8 million.

Fish-meal manufacturers have been buying about one-sixth of the total landings.

German fish exports amounted to 22,000 metric tons in 1952, compared with 10,000 in 1951. This is a substantial increase from 1948 when there were practically no exports. Fish imports in 1952 totaled 96,000 metric tons, 13 percent of the total landings. This is a sharp drop from the 1951 imports, and well below the 287,000 tons imported in 1948.

Note: See Commercial Fisheries Review, September 1953, p. 24.

\* \* \* \* \*

WHALING FLEET WON'T PARTICIPATE IN 1953/54 SEASON: The German whaling expedition, which had earlier planned to sail with the 1953/54 Antarctic fleet, could not be overhauled and equipped in time to participate, a U. S. consular dispatch of December 17 from Hamburg states. The delay has been caused by its inability until recently to dispose of its excess whale oil stocks which had accumulated from the last two years' catches. The bulk of this, however, was finally sold at a price between £72 and £73 (US\$202-205) per metric ton, for the manufacture of margarine.



The German whaling fleet consists of a factoryship, the 13,019 ton Olympic Challenger (the former U. S. tanker Herman F. Whiton) and 16 catcher boats (including about 10 converted British corvettes) all manned by German seamen with Norwegian-born gunners. The Olympic Challenger and the 16 whalers are at present laid up for repairs and overhauling. This fleet operates under the Panamanian flag.



## Greenland

REVISED TRADE REGULATIONS AFFECT FISHERIES: Regulations governing the conduct of trade, including fisheries, in Greenland were revised by Decree No. 292 of November 11, 1953, issued by the Greenland Department of the Danish Prime Minister's Office. The new decree results from improved supervision and administrative methods in the development of Greenland in recent years, a U. S. Embassy dispatch from Copenhagen reports.

The more important amendments relating to fisheries are as follows:

- (a) Prohibits trawling in Greenland territorial waters, except for the catching of shrimp, herring, and "angmagssat".<sup>1/</sup>
- (b) The extension of the licensing requirement to other than resident Danish nationals shall in the future also apply to the land territory with respect to trapping and hunting, and to reloading fish, and storage thereof in Greenland territorial waters and land territory respectively. This extension of the licensing requirements does not curtail the rights already accorded to Danish, Icelandic, and other foreign vessels with respect to navigation in East Greenland waters, by virtue of Royal Announcement of July 5, 1924.
- (c) Imposes a fee on fish catches licensed under (b) for reloading and storage, which fee shall be due the Greenland Price Regulation and Trade Conditions Adjustment Fund, if the fish are not sold through the central Greenland sales organization (at the present time The Royal Greenland Commerce).

<sup>1/</sup>A local dwarf herring used as bait for line fishing.



## Hong Kong

FISHERIES REVIEW, 1952: Total landings of fresh and salted fishery products in Hong Kong during 1952 amounted to 34,448 metric tons, valued at HK\$38,517,862 (US\$6,741,000) to the wholesaler, an April 14 U. S. consular dispatch from Hong Kong states (see table). This is an increase of 14 percent in quantity when compared



with 1951, but 2 percent less in value. However, it was considered a successful year for the local fishing community as the industry supplied the Colony with sufficient fish.

Hong Kong Landings of Fishery Products and Value to the Wholesaler, 1950-52						
Year	Fresh Fish			Salt Dried Fish		
	Quantity	Wholesale Value		Quantity <sup>1/</sup>	Wholesale Value	
	Metric Tons	HK\$	US\$	Metric Tons	HK\$	US\$
1952	26,381	30,980,434	5,422,000	8,067	7,537,428	1,319,000
1951	22,138	30,424,549	5,325,000	8,017	8,687,688	1,520,000
1950	16,425	24,414,750	3,875,000	16,304	13,873,411	2,202,000

<sup>1/</sup>Product weight.

There was a similar price drop for both fresh and salt-dried fish. While fresh fish landings continued to rise in 1952, the salted fish catch remained constant. As

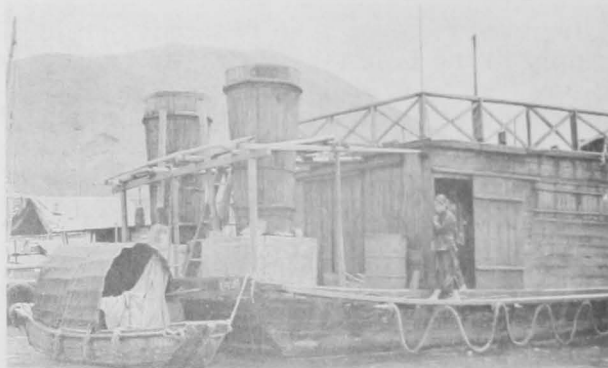


Kwong Hoi trawler from west coast of Kwangtung.



Shrimp trawler.

exports to Kwangtung continue to be restricted, salt fish was used for local consumption. The increasing mechanization of the fishing fleet has also reduced the necessity for salting fish on the homeward voyage of the fishing junk. A new mechanized drying process has also been worked out which is a marked improvement on the present method of drying the fish along the wayside exposed to the sun.



Fish drying vessel. Tubs on top are for steaming nets.



Small traps used for keeping small fish.

Toward the end of the year the Government permitted a Japanese company to send trawlers into Hong Kong and land fish up to 3,000 piculs (400,000 pounds) a month. There has also been considerable production of fresh-water fish from local ponds and the Fisheries Division exported HK\$85,000 (US\$14,900) worth of fish fry to Malaya, Thailand, and Formosa during 1952. The local oyster beds yielded about 95 metric tons of dried oysters and 24 metric tons of oyster sauce which is intended primarily for the American market. A Fisheries Research Unit was set up in September at Hong Kong University. This Unit, which has a 60-foot vessel at its dis-

posal, is expected to improve the catches made in surrounding waters and contribute in general to fisheries research in the Pacific area.

Fish produced in the Colony are sold through the facilities of the Fish Marketing Organization. The fish are brought by junk to the four wholesale markets operated by the Organization, which also provides low-interest credit facilities to the fishermen to enable them to finance the maintenance and mechanization of their junks. One credit society has been started among the Taipo purse-seine fishermen.

Note: Values converted on the basis of HK\$5.71 = US\$1 for 1952 and 1951; and HK\$6.30 = US\$1 for 1950.



## Italy

**INTERNATIONAL MARITIME EXHIBITION:** An International Maritime Exhibition will be held in Naples, Italy, from May 15 to October 15, 1954, under the sponsorship of the Italian Ministry of Merchant Marine. The exhibition is designed to show the development of fishing as well as shipping, and the possibilities of further progress in each industry. Of the eight sections into which the exhibition is organized, two deal with navigation, and one each with port organization, shipbuilding, the human factor in shipping, sea sports, fishing, and miscellaneous matters.

The Fishing Section will involve the following:

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Ocean fishing</li> <li>2. Fishing in the Mediterranean, Red, and Baltic Seas</li> <li>3. Coastwise fishing</li> <li>4. Special fishing:             <ol style="list-style-type: none"> <li>(a) Whale catching</li> <li>(b) Tuna fishing</li> <li>(c) Oyster breeding</li> <li>(d) Coral fishing</li> </ol> </li> </ol> | <ol style="list-style-type: none"> <li>5. Biological Institutes and Oceanographic researches</li> <li>6. Construction of fishing vessels</li> <li>7. Engineering on fishing vessels</li> <li>8. Fishing equipment</li> <li>9. Cold-storage industries and fish transport</li> <li>10. Canning and salting industries</li> <li>11. Fish markets</li> <li>12. Fishery byproducts</li> </ol> |
|--|---|

Full information on participation in the International Maritime Exhibition may be obtained by directing an inquiry to Dr. E. Ortona, Italian Embassy, Washington, D.C.



## Japan

**CANNED TUNA IN BRINE PRICES INCREASED:** The Tokyo Canned Tuna Sales Company has announced an increase in the f.o.b. Japan price of white-meat tuna canned in brine from \$11.20 to \$11.70 per standard case of 48 7-oz. cans. New prices on other packs of this product are as follows: 24 13-oz., \$10.65; 6 2-kg., \$12.50; 48 3½-oz., \$6.45.

There are indications that the f.o.b. Japan price of frozen tuna may shortly be increased by \$10.00 per ton.

\* \* \* \* \*

**FISH MEAL DEODORIZED:** A process for removing fishy odor from fish meal has been patented in Japan, Chemical Abstracts (March 25, 1953) reports. Saturated alcoholic iodine solution (4.2 ml.) is mixed with 10 g. glacial acetic acid, the solution diluted to 300 ml. with water and added to 1 kg. (2.2 lb.) of fish meal. After leaving overnight in a sealed container, the meal is dried to obtain a product free from fish odor.

\* \* \* \* \*

**REVIEW OF THE INLAND SEA FISHERIES:** The Inland Sea region represents one of the most intensely fished areas of Japan, a May 25 U. S. Embassy dispatch from Tokyo states. This region, bound by 3 of the 4 main islands of Japan, has long been noted as a historic site of innumerable fishermen operating small-scale fisheries. Situated among the islands of Kyushu, Shikoku, and the lower end of Honshu, it is dotted by many small islands and connected to the Pacific Ocean by two channels. The area is noted as a source of prime fishery products for the nearby large consuming areas of Osaka, Kyoto, and Nagoya, and other small communities of this highly industrial section. Its fisheries are composed of migratory species from the offshore waters, and of less migratory species confined chiefly to the Inland Sea region itself. It is a relatively important area for shellfish, especially oysters and clams. The complex system of fishing rights and privileges, many dating back to the feudal era, the legal jurisdiction



Small fishing village (Mera) near the mouth of Tokyo Bay. Typical small handpowered fishing craft used by Japanese fishermen in the coastal fisheries are shown on the beach.

of 11 prefectures facing this Inland Sea, and the interprefectural conflicts and disputes over fishing present a difficult problem in the administration of Japan's inshore and coastal fisheries. The administration, economy, and conservation of the Inland Sea region, although unique in some respects, reflect a few of the general conditions in many Japanese coastal fishing villages.

The Inland Sea region fisheries comprise:

- (a) 198,000 fishermen
- (b) 400,000,000 pounds annual catch
- (c) 3,196 fishing rights
- (d) 27 Sea-Area Adjustment Commissions
- (e) 700 fisheries cooperatives, with a membership of 110,000 and assets of ¥521,469,991 (US\$1,450,000)
- (f) 18 fisheries federations with assets of ¥325,769,643 (US\$905,000)



Drying fish (Mackerel-scad) on bamboo racks--small fishing village (Mera) near the mouth of Tokyo Bay.

This report is based on a field trip from March 23 to 27, 1953, for the purpose of spot checking fishing conditions in the region. Visits were made to several fishing villages, and interviews held with fishermen, fisheries cooperative officials, and officers of the prefectural Government fisheries. Detailed information was obtained on three representative fishing communities: Jigozen and Onomichi in Hiroshima Prefecture (Honshu), and Yoshiwa, Kagewa Prefecture (Shikoku).



Fishermen in the small communities of the Inland Sea region are concerned over the continued decreasing catch of fish, especially the average catch per fisherman, additional competition from returning repatriates, and uncertain local and national government aids. A general opinion apparently prevails that nothing much can or will be done about depletion of some of the fish stocks from over-fishing. The problem is recognized, often vaguely, as one which involves not only practical conservation measures but equally complex questions of economics and sociology. A steady decline in the catch obviously affects the fisherman, his family, and the community of which he is a part.



Typical small Japanese fishing boat used for set-net fishing in coastal waters.

The biggest problem is over-fishing. According to the fishermen, the answer is propagation of shellfish and seaweeds. These non-migratory fisheries resources can be stacked out, planted, cultivated, harvested, and managed much like farmland. Administration can be much more effective. Conservation measures and regulations for increasing the stocks of some fish are difficult to apply in a complex area such as the Inland Sea. The concentration on propagation of shellfish and other forms of aquatic life which can be adapted to the "farm method" appears to be a sensible approach to at least a part of the fishermen's problem.

With regard to the rehabilitation of "repatriates," progressive steps are being taken in some areas, especially in Kagawa Prefecture. As more repatriates return, and resume or engage in fishing for the first time, the problem of "too many fishermen and too little fish" is intensified. The policy actively being enacted in Kagawa Prefecture gives material support in the resettlement of repatriates in fishing areas less crowded than the Inland Sea.

General conclusions based on the observations made during the Inland Sea trip follow:

1. Fishermen and their families constitute a significant part of the population of many of the communities in the Inland Sea (10 to 45 percent). The fisherman-family averages five individuals, with an average of two fishermen<sup>1/</sup> per family. Gross annual income per fisherman-family (based entirely on proceeds from fishing) ranges from ¥155,000 to ¥260,000 (US\$430-720); gross annual income per fisherman is from ¥77,500 to ¥130,000 (US\$215-360).
2. Outgo of gross income is principally for living expenses (50 to 55 percent), with food (rice) the leading item (30 percent). The remainder of the income is divided between cost of fishing materials (35 to 47 percent) and local and national taxes (1 to 10 percent).
3. Generally speaking, there is no unemployment in the usual sense. Most fishermen in the Inland Sea region, as elsewhere in Japan, continue to fish even though their efforts often result in poor catches, financial loss, and increasing debt. The part-time fisherman usually engages in farming. When the catch is exceptionally poor, some fishermen may turn to odd jobs or any type of manual labor for daily or other brief periods.
4. Production in two of the three communities surveyed is higher than the prewar level, amounting to 83 and 43 percent. This is attributed to emphasis on the production of shellfish and a larger number of fishermen with a greater total catch (but less catch per fisherman as compared to that before the war). The decrease in catch in the third community is charged to "overfishing." The current increase in fisherman as compared to the prewar period ranges from 18 to 50 percent, depending on locality. The principal reason is the arrival of the repatriates. Fishing supplies (nets, rope, petroleum) were reported in sufficient quantity, but fishermen are not in a financial position to purchase their full requirements. Prices of fishing materials in 1952, when prices were decontrolled, were in most cases higher than the controlled prices of 1951, but somewhat below the black market prices of the price-control period. A considerable percentage of net, rope, and other products was purchased through the black market when prices were controlled. Hence the fishermen feel prices have declined in comparison with 1951.
5. Financing is an ever-present problem with large or small fishermen in Japan, and especially

<sup>1/</sup>"Fisherman" is defined, according to the Cooperative Law, as one who engages in fishing 30 to 90 days over a period of 1 year.



with the small fishermen who characterize the Inland Sea fisheries. Most of these fishermen are dependent on their local cooperatives or private individuals for loans or credit to meet operational and other expenses. In borrowing from cooperatives, assistance is usually in the form of nets and other supplies, the cost of which is deducted from the catch when landed at the cooperative's dock. In the areas sampled during the field trip, fishermen (collectively) borrowed from 12 to 100 percent of the total merchandise needed for their most important seasonal fishing. Approximately 50 percent or more was borrowed from the local cooperative, the remainder from local private individuals. Interest rates ranged from 11 to approximately 15 percent per annum on loans from the cooperative. Loans from private individuals in the small fishing villages are dependent on the friendly relationship and long acquaintance between the borrower and the lender. Fishermen often borrow from one another even though at times the amounts involved are pitifully small.

6. Marketing of the catch in the areas visited is mostly local (80 to 100 percent). However, the Inland Sea region provides substantial fishery products to the large consuming areas of Kobe and Osaka. All local sales are on a cash basis; remit-

tances on consignments to the Osaka and Kobe markets are usually within 7 days, indicating prompt payment for shipments sold in these large wholesale markets.

7. Fishery Reforms, in the form of fisheries cooperatives and redistribution of fishing rights, are of considerable interest to fishermen of the Inland Sea. The area has approximately 700 fisheries cooperatives with 110,000 members, and assets valued at approximately ¥521,000,000 (US\$1,450,000). There are 18 fisheries federations, with a membership of 796 cooperatives (cooperatives may be members of more than one federation), and assets totaling ¥325,800,000 (US\$905,000). Some of the principal problems facing the cooperatives are: (a) the need for merging small-membership cooperatives into larger units--this would provide a more substantial financial position of advantage in procuring loans and other financial assistance; (b) better administrative management and personnel training for this purpose; (c) more assistance and guidance from Federal sources in the development and implementation of programs for better health and welfare of fishermen and their families; and (d) assistance in better marketing (handling and distribution) of catches.

JAPANESE GOVERNMENT



## Republic of Korea

**TERRITORIAL LIMITS BILL:** A bill which passed the Republic of Korea National Assembly on December 1, 1953, defined the territorial limits similar to that now recognized as the "Rhee Line." The bill, which has not been promulgated into law yet, is referred to as the "Fishery Resources Protection Law" and reads as follows:

"Art. 1. For the protection of fishery resources the area delimited as follows by boundary lines linking the Korean peninsula and its adjacent islands are designated to be jurisdictional waters (hereinafter so referred to).

"a. The line starting from the peak of the Hamyong mountain in Kyonghung-gun, Hamkyong Pukto, extending to 42°15' north latitude, 130°45' east longitude.

"b. The line starting from 42°15' north latitude, 130°45' east longitude to 38° north latitude, 132°50' east longitude.

"c. The line starting from 38° north latitude, 132°50' east longitude extending to 35° north latitude, 130° east longitude.

"d. The line starting from 35° north latitude, 130° east longitude extending to 34°40' north latitude, 129°10' east longitude.

"e. The line starting from 34°40' north latitude, 129°10' east longitude, extending to 32° north latitude, 127° east longitude.

"f. The line starting from 32° north latitude, 127° east longitude extending to 32° north latitude, 124° east longitude.

"g. The line starting from 32° north latitude, 124° east longitude extending to 39°45' north latitude, 124° east longitude.

"h. The line starting from 39°45' north latitude, 124° east longitude extending to the western tip of Maan Island (Shindo archipelago in Yongch'ongun, Pyongam Pukto).

"i. The line starting from the western tip of Maan Island extending north to the Manchurian boundary.

"Art. 2. Those persons desiring to carry on fishing operations within the jurisdictional waters must have permission from the Minister concerned for such operations.

"Art. 3. Trespassers of the foregoing Article will be subjected to imprisonment with or without hard labor up to 3 years of a fine amounting to a maximum of 500,000 hwan, plus confiscation of fishing boat, equipment, and the entire haul of fish and items produced therefrom.

"Art. 4. The investigation of criminal cases created by a violation of the foregoing Article will be conducted by navy officers and men, or other officials so designated by the President, who are on duty aboard a navy patrol boat. If it is deemed necessary to conduct a more complete investigation, an offending fishing boat will be directed to proceed to port. If suspected of trespassing under Article 2, even a boat with a military pass can be ordered to halt, and can be searched, inspected or otherwise.

APPENDIX

"All licenses acquired and held as of February 19, 1952 are considered valid under this law.

"The law will be effective from the date of promulgation."

\* \* \* \* \*

**UNKRA REPORT ON RECONSTRUCTION PROGRAM:** The Agent General of the United Nations Korean Reconstruction Agency (UNKRA) said January 16 in a press conference at Seoul that "an effective start" has been made toward assisting the Republic of Korea to rebuild its destroyed economy. He noted that a considerable portion of the Agency's 1953 expenditures was for long-range projects now under way which will be completed in 1954 or later. Among these are a \$1,400,000 fisheries program, and a \$500,000 allocation for procuring fishing boats.



Mexico

**REVIEW OF THE FISHERIES, 1953: Landings, January-June:** The total landings of fish and shellfish in Mexico during the first six months of 1953 amounted to 47,739 metric tons, valued at 138.2 million pesos (US\$16.0 million), reports a U.S. Embassy dispatch from Mexico (table 1). The total catch for the entire year 1952

Table 1 - Mexican Landings of Fish and Shellfish, January-June 1953 and Comparisons

Species	Jan.-June 1953			12 Months 1952			12 Months 1951		
	Quantity	Value		Quantity	Value		Quantity	Value	
	Metric Tons	Million Pesos	Million US\$	Metric Tons	Million Pesos	Million US\$	Metric Tons	Million Pesos	Million US\$
Abulon (abalone) . . . .	460	1/	-	1,220	1/	-	2,782	1/	-
Albacora (albacore) .	8	0.1	-	4,167	11.4	1.3	4,335	12.9	1.5
Atun (tuna) . . . . .	18,953	52.9	6.1	41,194	76.8	8.9	47,726	129.9	15.0
Barrilete (tuna) . . . .	1,590	4.2	.5	10,349	23.6	2.7	12,492	31.2	3.6
Jurel . . . . .	546	1.3	.1	3,654	9.6	1.1	1,266	3.1	.4
Lisa . . . . .	275	1/	-	1,023	1/	-	1,423	1/	-
Mackerel, Pacific ..	21	1/	-	410	1/	-	1,895	1/	-
Mero . . . . .	715	1/	-	1,131	1/	-	1,595	1/	-
Mojarra . . . . .	941	1.8	.2	1,806	3.0	.3	1,609	2.7	.3
Robalo (Gulf pike) . . .	1,315	4.2	.5	2,038	4.4	.5	2,489	6.3	.7
Sardines . . . . .	1,945	1.0	.1	9,275	-	-	18,700	3.0	.3
Sierra . . . . .	581	1.7	.2	1,602	0.7	.1	1,951	3.1	.4
Lobster, spiny . . . .	493	1.2	.1	754	0.5	.1	876	2.2	.3
Oysters . . . . .	3,459	12.7	1.5	4,674	-	-	5,485	5.7	.7
Shrimp . . . . .	7,932	38.0	4.4	18,348	32.9	3.8	22,323	64.9	7.5
Miscellaneous . . . . .	8,505	17.5	2.0	13,062	22.2	2.9	13,601	25.3	3.0
Total . . . . .	47,739	138.2	16.0	114,707	189.0	21.9	140,548	292.2	33.7

1/Value included in miscellaneous.

amounted to 114,707 metric tons, valued at 189 million pesos (US\$21.9 million), and in 1951 landings totaled 140,548 metric tons, valued at 292.2 million pesos (US\$33.7 million). (It is generally admitted that considerably more fish and shellfish are landed but not officially reported, therefore, the above figures are probably too low.)

**Leading Species:** The most important fish landed in Mexico is atun (tuna). During recent years the catch of atun has varied from 41,000 to 49,000 metric tons, with a record of 84,000 tons in 1950. But the atun catch declined to 41,000 tons in 1952. The catch during the first half of 1953 was about 19,000 tons--slightly lower than the 1952 rate.

The second most important species is shrimp. The 1951 catch established a record of 22,300 metric tons, but declined to 18,300 in 1952 and to 7,900 during the first half of 1953. The shrimp catch along the coast of Guaymas in the north part of the Gulf of California was sharply reduced in the 1952/53 season. Trawlers from that area had to go far south off the coast of southern Mexico to get shrimp. The catch in the fall of 1953, however, was reported to be somewhat improved. Shrimp fishing off the coast of Campeche in the Gulf of Mexico continued to be relatively good.

Sardine was the third most important item in 1952, but the catch has declined sharply. The sardine fishing area is in the Pacific off the north coast of Baja California. A similar sharp reduction occurred in sardine fishing off the United States coast. (A considerable discrepancy exists in the Government's data on sardines for 1952. The catch was shown originally as only 2,375 metric tons, but the quantity used for canning in 1952 as reported by Marina is 9,275 tons. Reports indicate that the five canning plants handled 13,021 metric tons of sardines in 1952 and will handle 10,569 metric tons in 1953. Probably the latter figures as to the quantity canned are more nearly correct and to this extent the data on total fish catch as shown in table 1 are too low.)

Canning: Table 2 shows the quantity of fish used for canning in 1951 and 1952. The volume for 1953 is expected to be about the same as that in 1952. Only five

Table 2 - Mexican Canned Fishery Products Production, 1952 and 1951

Item	Quantity		Value			
	1952	1951	1952		1951	
	Metric Tons	Metric Tons	1,000 Pesos	1,000 US\$	1,000 Pesos	1,000 US\$
Sardines .....	9,275	18,678	1,876	217	3,004	347
Mackerel, Pacific	1,542	1,894	324	37	303	35
Abulon (abalone) .	1,067	1,528	1,977	229	2,647	306
Barrileta (tuna) .	599	71	944	109	121	14
Atun (tuna) .....	203	62	322	37	114	13
Total .....	12,686	22,233	5,443	629	6,189	715

items are listed as being canned, but it is known that some shrimp also are canned although no data are available. The production of canned sardines (all sold on the domestic market) was by far the most important item in 1951, but declined sharply in 1952 as the result of the reduced catch. Canned mackerel, the second most important item in 1951, also declined sharply. Canned abulon decreased appreciably.

Foreign Trade: Mexico exports 40 to 70 times more fishery products than it imports. The value of these exports during recent years has accounted for 5 to 10 percent of Mexico's total exports (table 3).

Table 3 - Mexican Foreign Trade in Fishery Products, 1950, 1951, 1952 and 10 Months 1953

Year	Quantity				Value							
	Imports		Exports		Imports				Exports			
	From U.S.A.	Total	To U.S.A.	Total	From U.S.A.		Total		To U.S.A.		Total	
	Metric Tons	Metric Tons	Metric Tons	Metric Tons	1,000 Pesos	1,000 US\$	1,000 Pesos	1,000 US\$	1,000 Pesos	1,000 US\$	1,000 Pesos	1,000 US\$
10 Mos. 1953 ..	73	1,010	1/	66,331	392	45	7,024	812	1/	1/	239,215	27,655
1952 .....	449	1,880	78,593	78,750	2,449	283	12,547	1,450	262,219	30,314	262,906	30,394
1951 .....	84	1,385	89,823	89,823	570	66	9,807	1,134	314,911	36,406	315,848	36,514
1950 .....	60	200	135,014	135,646	498	58	1,606	186	399,204	46,151	401,114	46,372

1/ Not available.

Exports declined from 1950 through 1952, but in 1953 probably will be at about the same level as in 1952. The most important export item is fresh fish, which accounted for about 77 percent of the weight and about 60 percent of the value of all

fishery products exports (table 4). Second in importance was frozen shrimp, which accounted for about 33 percent of the total value. Next were canned abulon, (about 5 percent) and cooked spiny lobster meat (about 1 percent).

Table 4 - Mexican Exports of Fishery Products, 1951, 1952, and First 10 Months 1953

Item	Quantity			Value					
	10 Mos. 1953	1952	1951	10 Mos. 1953	1952		1951		
	.... (Metric Tons) ....			1,000 Pesos	1,000 US\$	1,000 Pesos	1,000 US\$	1,000 Pesos	1,000 US\$
<b>In natural state, unprepared:</b>									
Almejas .....	531	36	67	559	64.6	45	5.2	73	8.4
Lobsters .....	-	-	1	-	-	-	-	2	.2
Turtles .....	133	265	239	35	4.0	50	6.9	59	6.8
<b>Prepared:</b>									
Fish fillets .....	187	176	35	331	38.3	248	28.7	63	7.3
Fish, fresh .....	51,244	61,216	68,517	137,435	15,888.4	162,698	18,809.0	180,987	20,923.3
Fish, dry, salted, smoked ..	157	78	30	949	109.7	459	53.1	47	5.4
Lobster, spiny, cooked ....	461	617	743	2,767	319.9	2,381	275.3	3,329	384.9
Frog legs .....	7	1/	-	23	2.7	4	.5	-	-
Crustaceas .....	3	43	7	4	.5	91	10.5	9	1.0
Shrimp {dried .....	2	21	8	12	1.4	122	14.1	31	3.6
{fresh .....	117	106	588	657	76.0	439	50.8	2,848	329.2
{frozen .....	11,458	13,916	16,129	84,403	9,757.5	85,174	9,846.7	84,813	9,804.9
Mollusks .....	18	63	69	22	2.5	73	8.4	81	9.4
<b>Canned:</b>									
Abulon (abalone) .....	2,008	2,197	3,450	11,986	1,385.6	11,018	1,273.7	12,876	1,488.6
Shrimp .....	1	1	5	6	.7	5	.6	12	1.4
Sardines .....	1/	1/	165	1/	1/	1/	1/	349	40.3
Other .....	3	15	14	26	-	88	-	67	7.7
Grand Total .....	66,331	78,750	90,067	239,215	27,654.9	262,906	30,393.7	315,846	36,513.9

1/ Less than 1 metric ton.

Exports of each of these products during the first ten months of 1953 were at a rate about equal to that in 1952. Higher prices for shrimp, however, will establish a new record in value of shrimp exports in 1953.

Nearly all of the exports in 1951 and 1952 were to the United States. Principal exports to other countries were small quantities of dry, salted, or smoked fish, canned crab meat, and about 4 percent of the exports of canned abalone.

Imports, although relatively small, rose sharply in 1952 but declined in 1953. Imports consist largely of dried codfish from Norway and other dried, salted or smoked fish from Portugal, Norway, France, and Spain. These two categories accounted for about 95 percent of the quantity imported. Imports from the United States consisted of only small quantities of fresh fish and some salmon and caviar.

**Prices:** Shrimp prices to fishermen at Mazatlan were reported as 12.00 pesos per kilo (63 U.S. cents per pound) for white and red shrimp, and 11.00 pesos (58 U.S. cents per pound) for brown shrimp. At Topolobampo, Sinaloa, an average of 4.00 pesos per kilo (21 U.S. cents per pound) is paid for all sizes of canal shrimp. At Tampico ocean shrimp were quoted at 5.00 pesos (26 U.S. cents per pound), and lagoon shrimp at 2.23 pesos per kilo (12 U.S. cents per pound).

Prices for fish to boat owners at the two Gulf ports of Matamoros and Tampico were reported as follows:

Species	Matamoros		Tampico	
	..... (Per metric ton) .....			
	Pesos	US\$	Pesos	US\$
Red snapper .....	4,000	462	4,800	555
Trout .....	4,000	462	3,800	439
Pike (robalo).....	-	-	3,700	427
Sheepshead .....	4,000	462	-	-
Croaker .....	2,500	289	1,800	208
Catfish .....	2,250	260	3,000	347
Carp .....	2,250	260	-	-
Drumhead .....	1,700	197	-	-
Mullet .....	-	-	1,000	116



Frozen shrimp delivered to the United States were reported by Mazatlan as averaging US\$0.95 per pound.

The breakdown of cost involved in shipping frozen shrimp to the United States are reported by one Mazatlan plant as follows:

	<u>U. S. cents</u> <u>per pound</u>
Cost of shrimp .....	55.0
Freezing and packing .....	6.3
Boxes and markers .....	2.0
Freight charges to New York	6.5
Icing car, trucking, and customs agent at Nogales ..	0.7
Insurance .....	0.5
Export tax .....	5.0
Sales commission in U. S. ..	9.5
	<u>85.5</u>

Prices for fresh fish refrigerated for export to the United States along the north Gulf coast are reported as follows:

Species	Matamoros Mexican Export Price		Tampico U. S. Price c. i. f. Brownsville, Texas
	Pesos per kilo	U. S. cents per pound	U. S. cents per pound
Red snapper .....	4.00	21	20-30
Robalo .....	-	-	17-27
Sea trout .....	4.00	21	18-35
Sheepshead .....	4.00	21	-
Croakers .....	2.50	13	12-18
Catfish .....	2.30	12	16-21
Carp .....	2.30	12	-
Mullet .....	-	-	9-12
Drumhead .....	1.70	9	-
Shrimp (size 15-20 count)	-	-	70

Outlook: The Mexican Government is giving increased attention to its fishery resources and has heralded a program of "March to the Sea." This program includes the development of ports, fishing fleets, refrigeration and other handling and transportation facilities. The program is still in the development stage and little information is available as to what is to be accomplished. Recent announcement was made, however, that the Government has decided to construct four new freezing plants at the following ports: Veracruz, Coatzacoalcos, Salina Cruz, and Manzanilla.

During 1953 a study was made of the revision of the Mexican fishing law. This subject is a very controversial one and apparently the drafts of the new legislation have been changed repeatedly with no indication yet as to what the new law will be. Reports from Mazatlan claim that fishing interests in that area are uncertain as to the future, particularly pending the enactment of the new law. In the meanwhile no freezer or fleet expansion is planned. Under the present law, fishing cooperatives reportedly have exclusive rights to all commercial fishing and are advocating that the entire industry be placed under their control. The boat owners, however, are advocating that the cooperatives' exclusive rights should be terminated and fishing should be made free to everyone.

In some ports the lack of ice for fishing vessels and lack of refrigeration facilities are factors limiting expansion. In Tampico a second small canning plant has

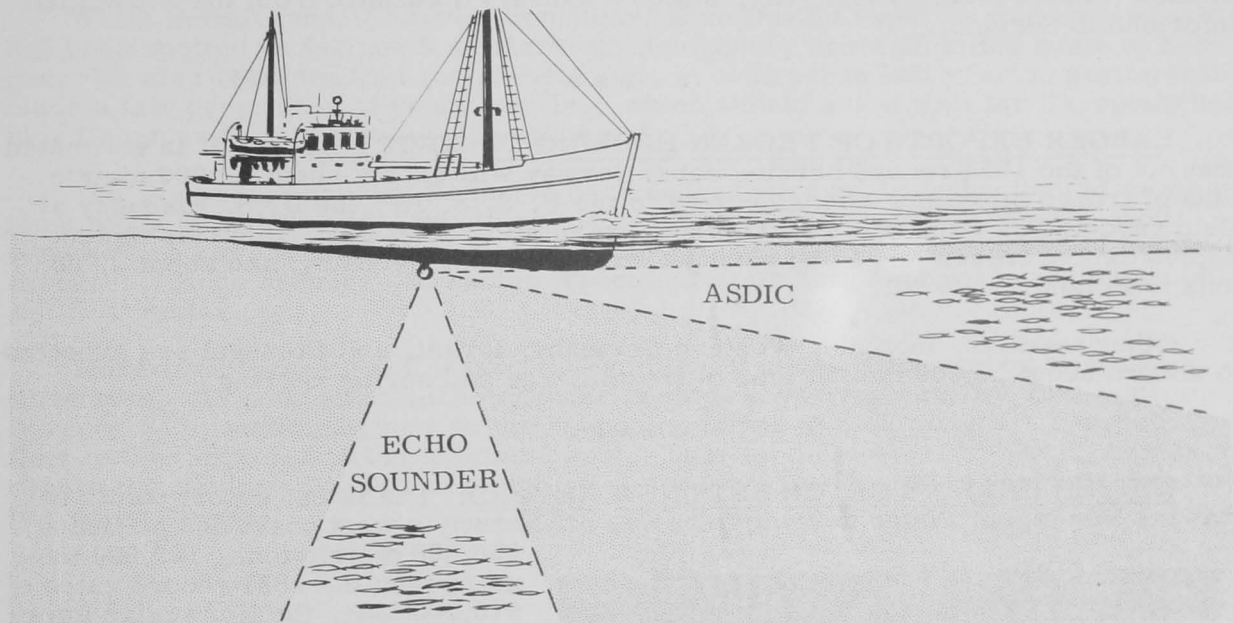
been completed and began operating in September 1953. Cannerymen complain of the high cost of good quality cans; imported cans are subject to high duty and local cans reportedly are of inadequate quality.

Official data on the size of the catch would indicate a per-capita consumption of less than  $4\frac{1}{2}$  pounds. Assuming that considerable additional unreported quantities are caught, estimates point to a per-capita consumption of 6 pounds. This figure is extremely low for a country with so extensive a coastline.



## Norway

MORE DETAILS ON FISH-LOCATING DEVICE (ASDIC): A combined echo sounder and ASDIC especially designed for fishing vessels has been announced in recent issues (Dec. 2 and Dec. 8, 1953) of Fiskaren, a Norwegian trade paper. According to the advertisements, the equipment consists of a well-known Norwegian



Artist's conception of how the combined "echo sounder" and "ASDIC" can be operated to locate fish horizontally or vertically.

echo sounder with accessory equipment for horizontal scanning. As an echo sounder or depth finder the equipment has two ranges: 0 to 660 feet and 0 to 3,300 feet. Used as ASDIC, the scanning zone is a half circle from port to starboard with a maximum diameter of 3,300 feet.

The equipment is designed to register on either dry or wet paper as the user desires. Dry paper is said to have advantages simply because it is dry, while wet paper provides a more delicate registration.

An ASDIC echogram is said to be somewhat more difficult to interpret than the usual echogram. With horizontal scanning one can obtain echoes from the bottom, from land, changes in temperature and salt content, and currents. Tests and demonstrations are said to have shown, however, that fishermen easily learn the basic rules concerned with ASDIC scanning.

Shifting to the ASDIC part of the equipment is reported to be simply a matter of turning a knob, setting the range for 3,300 feet, and using the maximum paper speed. The ASDIC transducer is operated manually and directed from the pilothouse. When it is not in use, it can be drawn up into a protective shoe on the vessel's bottom. It requires only a 2½-inch hole in the hull.

The ASDIC equipment without accessories costs Kr. 10,600 (US\$1,480), including electrical installation. Accessories for the ASDIC equipment costs Kr. 4,900 (US\$685), exclusive of installation.

Note: Also see Commercial Fisheries Review, January 1954, p. 33; August 1953, p. 37; and April 1953, p. 53.

\* \* \* \* \*

FISHERIES PRODUCTION DOWN IN 1953: Norway's total fish catch in 1953 was about 1,300 million metric tons, a substantial drop from the 1,630 million tons landed the previous year. The setback was due mainly to the poor catch of the winter herring fisheries and the Lofoten cod fisheries. Exports of fishery products also declined from a value of about Kr. 900 million (US\$126 million) in 1952 to Kr. 720 million (US\$101 million) last year, states a January 7 bulletin from the Norwegian Information Service.

\* \* \* \* \*

LARGER EXPORTS OF FROZEN HERRING TO SOVIET BLOC: It is estimated that out of the 1954 record herring catch Norway will export about 10,000 metric tons of frozen large and spring herring to the U. S. S. R., the U. S. Embassy at Oslo reported on February 12. Other shipments to Soviet Bloc countries include 12,500 tons of frozen large and spring herring to East Germany; and about 2,700 tons to Poland.

Other markets, including Western Germany, Israel, and Portugal are expected to absorb about 10,000 metric tons of frozen large and spring herring.

\* \* \* \* \*

WINTER HERRING CATCH SETS NEW RECORD: The latest report points out that the Norwegian winter herring fisheries off Norway's west coast had produced 860,000 metric tons, 190,000 tons more than the 1951 record catch of 670,000 tons, the Norwegian Information Service stated on February 18.



Homeward bound with full load of herring.

After only six days of fishing landings totaled approximately 120,000 metric tons of winter herring, valued at about Kr. 20 million (US\$2.8 million). Last year when the fisheries did not start until January 24 less than 50,000 tons had been landed by the end of the first six days, the Norwegian Information Service reported on January 28.

Under favorable circumstances the 500 purse seiners and about

1,600 drift gill-netters (manned by 20,000 fishermen) participating in the current fisheries can land well over 100,000 tons a day, more than ever before. The processing



and storage capacity of the industry is also larger. Meal and oil plants between Egersund and Trondelag have a storage capacity of 400,000 tons, and can process some 30,000 tons of herring a day.

Working day and night, herring meal and oil plants along Norway's west coast can process some 30,000 tons a day, but even so they are unable to keep pace with deliveries. And, with landings ranging from 20,000 to 75,000 tons, the combined 400,000 tons storage capacity is quite inadequate. Early in February when piers, storages, and processing plants became glutted with herring, landings were deliberately slowed down. Both fishermen and shore crews were showing signs of exhaustion after working well over two weeks at a stretch with only the briefest of breaks. Meanwhile, many fishing vessels and transports are bringing their valuable herring cargoes to plants in North Norway.

The Fisheries Committee of the Norwegian Parliament, accompanied by the Fisheries Director and other representatives of the Ministry of Fisheries, early in February visited the banks off Aalesund aboard the ocean research vessel G. O. Sars, which subsequently continued its search for winter herring in waters farther north.

While in Aalesund, fisheries consultant Finn Devold reported that huge shoals had been spotted as far south as Marstein lighthouse, some 25 miles south of Bergen. He also reported that the present run, in contrast to last year's, seems to include a fair proportion of young herring, which should augur well for the spring herring fisheries from February 15 until April.

The Norwegian herring fisheries have undergone a rapid technological development since World War II, largely as the result of the introduction of echo depth sounders, sonar, and ship-to-shore radiotelephone, coupled with streamlined ocean research. Echo sounder and radiotelephone are now found aboard every purse seiner and drift netter.

Modern technique has fostered a new spirit of cooperation among Norwegian fishermen. As soon as the echo sounder records a herring run, the find is promptly reported by radiotelephone to the nearest clearing station ashore. The fishing fleet is then directed to the indicated spot. The radiotelephone also enables masters aboard the fishing vessels to receive vital weather reports and to exchange information on prospects.



## Panama

**REVENUE FROM BAIT FISHING LICENSES INCREASED IN 1953:** Licenses for tuna bait fishing in 1953 returned to the Panamanian Government the total of B/. 132,002 (US\$132,002) from 72 vessels, a February 5 U. S. Embassy dispatch from Panama states. In 1952 a total of 98 tuna boats purchased licenses for which they paid B/. 100,400 (US\$100,400).



## Portugal

**FISH CANNING TRENDS:** Catches of fish for canning were reported below normal in the 1953 season in southern Portugal and in northern Portugal (where production is usually heavy), reports the December 19, 1953, Foreign News, a Canadian Government publication. Overseas demand was reported dull. Prices dropped and buyers tended to speculate. Portuguese fish canning factories went into production

on May 1, 1953, after the closed season of three months stipulated by law. However, production of skinless sardines (chiefly exported to the United States) did not begin until June 15 and ended on November 15, 1953.

With falling prices and sizable stocks on hand, packers were reported to be seeking official action to stabilize and regulate production and sales. The Commercial Treaty with the United Kingdom involved purchases of some 500,000 cases of canned fish, and it was expected that at least 250,000 cases would be shipped during the first half of 1953. However, official figures show that only 1,065 cases were shipped to the United Kingdom from January to May 1953.

Total exports during the first five months of 1953 were about 13,000 metric tons as compared with 12,500 tons during the same period of 1952 and 15,800 tons in 1951. The respective values were 208,740 contos (US\$7.3 million) in 1953; 230,795 contos (US\$8.2 million) in 1952; and 291,117 contos (US\$10.0 million) in 1951.

**AGAR-AGAR INDUSTRY:** *Gelidium* (for use in agar-agar) in two forms (*Gelidium corneum* and *Gracillaria*) is found all along the coast of Portugal, a July 3 U. S. Embassy dispatch from Lisbon states.

At present most of that used in the production of agar-agar is gathered by fishermen along the coast north and south of Oporto and sold to the only producing company located in Oporto. That company buys about 100 metric tons a year, from which it produces 18 to 20 tons of agar-agar in powder form. Another type of algae, *Chondrus crispus*, is also gathered to the extent of about 100 tons a year, partly for export in its raw state and partly for use in manufacturing a gelose used as a filler by domestic cotton mills.

There is also one company in Lisbon which is authorized to make agar-agar.

The industry is subject to "condicionamento" under Decree Law No. 37876 of July 5, 1950. This means that no other company can engage in the industry without the Portuguese Government's approval.

The Oporto firm, organized in 1942, and a group of Government agricultural engineers in the Algarve started independently to experiment in the manufacture of agar-agar in 1942, when supplies from Japan were shut off. The firm started production in 1945 and at present has a capacity estimated at about 55,000 pounds of agar-agar.

In 1945 the Government engineers also arranged for production by the Lisbon firm under an agreement whereby all profits would be given to the fishermen's organization. The firm already had refrigerating equipment available and invested in other equipment necessary for the production of agar-agar. It also is said to have a capacity of about 55,000 pounds. It produced agar-agar for a few years with production reaching as high as 4,000 to 5,000 tons in strips, but the arrangement was unsatisfactory since it used up a substantial amount of refrigerated space and yielded no profit. In 1949 the company discontinued production, which has not been resumed.

Domestic consumption of agar-agar is at the rate of about 19,800 pounds a year, mainly in food preservation (tomato paste) and in filtering wine. It is estimated that it could be increased to as much as 44,000 pounds a year, but the Oporto firm lacks the necessary capital to increase its purchases of algae (which must be paid for with cash) and also it apparently wants to continue supplying its foreign customers. New capital is hesitant to go into the industry, fearing increased Japanese competition.

Imports of agar-agar are negligible, the average for the past five years being about 81 pounds.

Exports of agar-agar from Portugal in the past six years are shown in the table.

Year	Quantity Lbs.	Total Value	
		Escudos	US\$
1952 ...	20,027	591,263	20,424
1951 ...	13,446	522,350	18,043
1950 ...	17,602	828,927	28,627
1949 ...	11,539	822,765	28,420
1948 ...	14,978	1,015,776	35,087
1947 ...	5,133	388,720	13,427

The principal buyers of Portuguese agar-agar in 1952 were the United States, the United Kingdom, and foreign vessels; in 1951, Belgium-Luxemburg. In 1952, the U. S. received a total of 2,620 pounds of agar-agar, valued at 60,184 escudos (US\$2,080), and none in 1951 and 1950. The Oporto firm reported that its stocks were exhausted and its production sold to the end of this year.

Exports of *Gelidium* are not permitted. Exports of *Chondrus crispus* are permitted and the principal buyer at present is the United States.



## Rumania

**FISHERIES DEVELOPMENT PROGRAM:** Plans are under way in Rumania to exploit its fisheries resources in the Black Sea and the Danube Delta (traditional haunt of the caviar-bearing sturgeon), and the mountain trout streams, reports the July 25 Fish Trades Gazette, a British trade magazine.

A scientific survey of the Black Sea has already begun under the guidance of the newly-formed Rumanian Pisciculture Institute at Constantza in association with the Institute of Food and Fish Research Investigations, according to Rumanian press reports. This includes the study of the most suitable fishing methods, fish breeding, canning processes, and marketing.



The fact that important byproducts apart from food can be obtained from fish is also mentioned. These include medicinal oil, yielding vitamins A and B. The dolphin, a fish particularly numerous off the Rumanian coast is considered valuable in this respect. Oil used in the textile and tanning industries is extracted from its fat and the skin can be used for fancy leather work.

The Black Sea with its area of 280,000 square miles is claimed to be as yet relatively unexploited as far as fishing is concerned, and certainly within reach of the Rumanian coast. Prewar figures show that of the annual catch, which then amounted



to 100,000 metric tons, the Rumanian share was only 5,000 tons, compared to 52,000 tons for the U. S. S. R.

In addition, the productivity of the sea, in the amount of fish caught per square miles of area, is only a fourth of the Caspian, and considerably lower than in the Mediterranean Sea. This is in part due to the extreme depth of the Black Sea and also to the low salinity, which makes the water too fresh for some sea fish, while being too salty for river fish. Fish life is also affected by the presence of hydrogen sulphate.

Nevertheless, the Rumanians consider that with modern equipment the Black Sea is capable of greater yields than hitherto. It is known to contain more than 80 species of fish. One group includes sturgeon, herring, mullet, and skate. Other fish found in quantity are tuna, kampsii, sardines, stavride, blue herring, and dolphin. The latter fish have been relatively little affected by the fishing fleets.

The fast-moving tuna, averaging about 2 feet long and 25 pounds in weight, have hitherto been beyond the capacity of the old-type Rumanian fishing craft. Larger and faster vessels, able to venture farther out to sea, are needed. Up to recently 80 percent of the catch was taken within three miles of the coast by small sailing craft, while the remaining 20 percent were caught in larger craft venturing no more than 30 miles out to sea. As bigger craft come into service, it is expected that previously unexploited reserves of this fish can be reached.

About 200,000 dolphin are caught each year in the Black Sea, mainly by Soviet and Turkish vessels. These fish consume up to 25 pounds of smaller fish each day, and they multiplied considerably during the war when fishing was discontinued. Experts put the possible dolphin catch for the Black Sea at about 700,000 annually, without danger of exhausting the reserves.

Definite steps for improving both variety and number of fishing craft and gear have been taken by the Rumanian Government in order to increase the fish yield of the Black Sea, although specific figures have not been published. But the launching of a number of seagoing Diesel-engine craft has been reported. Deep-sea fishing is also assisted by a mothership named Red October, which is apparently fitted with a refrigeration plant capable of storing the catch of smaller craft. The location of shoals by aircraft is also mentioned as being likely within a year or two. A considerable training program for fishing-fleet personnel has also been inaugurated.

River fishing is also an important industry and is undergoing expansion as well. It is mainly concentrated in the Danube Delta, where 10,000 of the 15,000 Rumanian professional fishermen live. They catch the sturgeon and herring that enter the Delta to spawn or to seek food. Ninety percent of the sturgeon and 80 percent of the herring caught in Rumania come from this area.

Efforts are now being made to increase the average yield. These include the construction of dykes to retain flood water and thus increase the area for breeding, and the artificial breeding of fish, mainly trout, for restocking mountain rivers.

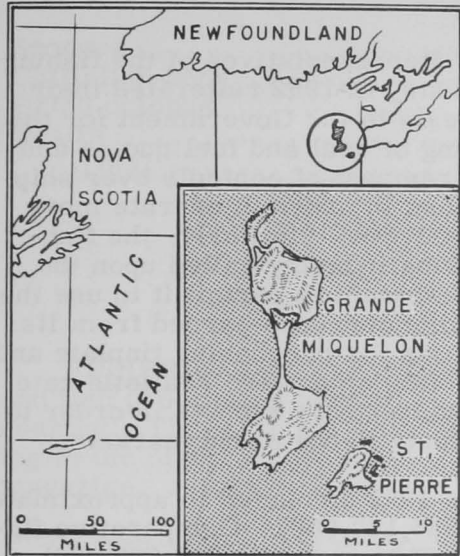
As a result of Rumania's big hydroelectric projects, an area of over 100,000 square acres of reservoirs will be created on the lower Danube. About a quarter of this area is expected to yield as much as 100 pounds of fish per acre each year. The river control projects and rational organization of the fishing industry are expected to make the Danube Delta yield a regular annual supply of 12,000 to 15,000 metric tons of fish.





## St. Pierre-Miquelon Islands

**FILLET PLANT GETS DUTCH-BUILT TRAWLER:** The Dutch-built trawler Galantry arrived at St. Pierre Island late in December 1953 in order to fish for the French fillet plant located there, a bulletin from the Fisheries Council of Canada states. St. Pierre is part of the French Colony of Saint Pierre-Miquelon Islands off the south coast of Newfoundland. It is reported that two or three more similar vessels will also be built in Holland and purchased by the French Government for the St. Pierre plant.



The Galantry was built in the summer of 1953 in a shipyard at Woubrugge, The Netherlands. A Dutch crew delivered the trawler and will instruct the new owners in its operation. The Galantry is 111 feet long, powered by a 460 hp. Diesel engine, and has a capacity for 200,000 pounds of fish. The vessel is rigged for fishing on the starboard side only, leaving the port side free. The Galantry joins the French trawler Bearn which is already fishing for the St. Pierre fillet plant.



## Spain

**FISH CANNING TRENDS, OCTOBER-DECEMBER 1953:** Fish canning plants in the Vigo area of Spain purchased during December 580 metric tons of fish, about 15 percent of the total catch entered at Vigo. This compares with 1,267 metric tons in November and 1,821 metric tons in December 1953. The decline in the purchases by the canneries is due to smaller catches of species for canning, reports a January 7 U. S. consular dispatch from Vigo.

Fish canning plants purchased 1,267 metric tons of fish (mainly anchovy and jurel) for processing in November 1953. Sardines, while available in small quantities in that month, sold at prices almost prohibitive for canning. Purchases for canning amounted to 2,838 metric tons in October and 627 metric tons in November 1952. The decrease in November 1953 was due to light landings of species suitable for canning.

The Spanish canning industry is optimistic about the future, especially now that it has been unofficially assured by Central Government officials that supplies of tin plate--the industry's principal need for a number of years--will be available in increasing quantities. Unofficial reports state that out of the recently announced dollar allowance granted Spain under the United States aid program, the sum of US\$450,000 is being made available for the purchase of tin plate for fish canning. The industry is anxiously awaiting Government action on the revision of established export rates to facilitate the expansion of Spanish exports.

\* \* \* \* \*

**REVIEW OF THE FISHERIES, 1952:** The total catch of fishery products in Spain during 1952 amounted to approximately 583,647 metric tons as compared with 595,313 metric tons in 1951 (see table), according to a May 21 U. S. Embassy dispatch from Madrid. Exports of fishery products in 1952 amounted to 10,334 metric tons as compared with 11,964 metric tons in 1951.

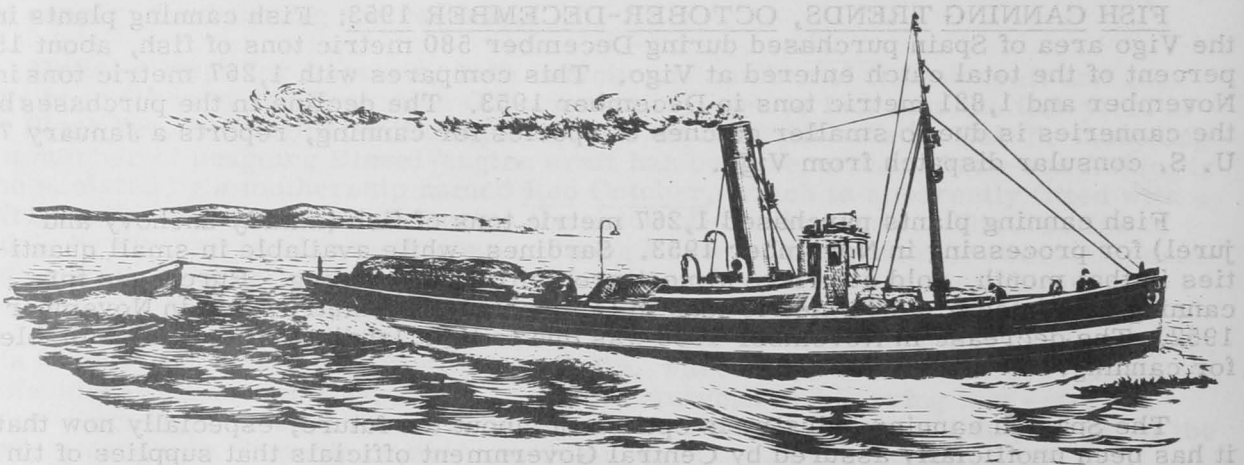
The Spanish fishing industry viewed the 1952 catch as unsatisfactory. The large schools of sardines from Spanish coastal waters disappeared and catches of cod were only fair. These facts emphasized the necessity for a modernized fishing fleet capable of extending operations into deeper waters and for longer periods of time.

Spanish Fishery Products Landings and Exports, 1952 with Comparisons		
Year	Total catch <sup>1/</sup>	Exports <sup>2/</sup>
	..... (Metric tons) .....	
1952 .....	3/ 583,647	10,334
1951 .....	595,313	11,964
1950 .....	576,487	7,335
1949 .....	550,952	6,451
1931-35 average.	4/ 325,053	34,485

1/Includes crustaceans, shellfish, and tuna caught in offshore nets.  
 2/Includes fresh, preserved, and canned fish.  
 3/Estimated.  
 4/Average 1930-34 (data for 1935 catch is not available).

Representatives of the fishing industry in 1952 reiterated their appeals to the Government for the lifting of coal and fuel quotas and the removal of controls over ship fittings in order to operate more effectively. Similarly, the fish-packing industry called upon the Government to permit it to use the foreign currency earned from its exports for purchasing tinplate and to establish a more realistic rate of exchange on exports in order to compete in the world markets.

Total catches entering the Vigo Fish Exchange in 1952 amounted to approximately 46,364 metric tons, valued at 245,389,100 pesetas (US\$6,190,000). Comparative figures for the previous year are 53,104 tons at 317,453,000 pesetas (US\$8,006,000). The average price of fish auctioned at the exchange in 1952 was 5.36 pesetas per kilo (6.1 U.S. cents per pound), as compared with 5.95 (6.8 U.S. cents per pound) in 1951.



Typical Spanish sardine mothership, "galeo," (about 40 gross metric tons and 66 feet in length) used large seine net which occupies most of the deck space.



## Tunisia

**FISHERY PRODUCTS EXPORTS TO U. S., 1953:** Tunisian exports of fishery products to the United States in 1953 amounted to 196,000 pounds, valued at \$94,273 (see table), a January 4 U. S. consular dispatch from Tunis reports. In 1952 exports totaled 190,400 pounds, valued at \$81,290. Snails led in volume and sponges in value during both years.

Tunisian Exports of Fishery Products to the United States, 1953 and 1952

Item	1953		1952	
	Quantity	Value	Quantity	Value
	Lbs.	US\$	Lbs.	US\$
Sponges .....	5,000	36,333	6,900	36,216
Cuttlefish bone.....	82,000	28,415	54,500	13,017
Dried octopus .....	5,000	2,250	5,000	2,250
Snails .....	104,000	27,275	124,000	29,807
Total .....	196,000	94,273	190,400	81,290



Turkey

**FISHERIES DEVELOPMENT PLANNED:** Turkey plans to develop its fishing and fish processing industries, potentially two of the most highly productive in the country. Three United Nations Food and Agriculture Organization experts are aiding in the plan, according to the January 23 Fish Trades Gazette, a British fishery magazine.

A fish-meal plant at Trabzon on Turkey's Black Sea coastline could produce and process some 100 metric tons of anchovy into fish meal per day. Canning and refrigeration facilities could make full use of the remainder of the anchovy that abound in that area.

Another plan aims at expanding the export of canned tuna from Turkey, with canned bonito and sardines for the domestic market. There are also the almost untapped resources of fresh-water fish, such as blue trout and carp, in Turkey's inland lakes and rivers.



Union of South Africa

**CANNED PILCHARD MARKETS ACTIVE:** South Africa is profiting from an active market for canned pilchards in the United States and elsewhere, due largely to the complete halt in California production and despite continuing competition from Japan and the State of Maine. California formerly produced and sold 5 million cases of pilchards a year, so the sale of the present South African output of 1½ million cases and the contemplated production of 2 million cases a year should present no difficulties, states Foreign Trade (January 23), a Canadian Government publication.

Total Union of South Africa catch of pilchards in the last three calendar years were: 1951--220,902 metric tons; 1952--300,560 tons; 1953--244,127 tons.

There have been temporary setbacks in some markets, as in Britain, where the Minister of Food has returned the trade to private hands, and the demand there has switched from one pound to half-pound packs. But these setbacks appear to be temporary. Profits reported by the fishing companies certainly show no sign of diminishing. There have been complaints about the prices the companies have to pay for tins which, the argument runs, are higher than they should be if prices for South African pilchards are to be really competitive.

South Africa's Director of Fisheries has denied that talk of the pilchard fisheries declining has a basis in fact. He said that the present measures--a four-months' closed season from September to December, a limitation on the number of boats and



fish-meal factories allowed to operate, and a quota production of 250 thousand tons-- have proved successful. Another restriction which will soon come into force is a limitation of the number of canners. Research shows that there has been no diminution of stocks and the slight decrease in last season's catch stemmed from the natural fluctuation of the fish schools, which this year were found farther south.



## U. S. S. R.

STURGEON BREEDING "FARMS" DEVELOPED: Russia has established new sturgeon breeding "farms" on the Caspian and Azov Seas, the Soviet Food Ministry announced recently. These are expected to increase Russia's caviar supplies by 50 metric tons in 1953, reports the December 19 issue of The Fishing News, a British fishery magazine.



## United Kingdom

CANADIAN CANNED SALMON TO BE PURCHASED: The United Kingdom will make a bulk purchase of canned salmon in Canada, the British Minister of Fisheries announced on February 9. While the Minister did not specify the amount, he believed it would consist of about 30 percent red and 27 percent pink salmon. He also stated that it would be "considerably larger than last year's purchase," which amounted to 205,000 cases, valued at C\$4.25 million, the U. S. Embassy at Ottawa reported on February 11. Earlier reports had indicated that United States salmon packers were to be given an opportunity to offer on this purchase.

British authorities were quoted in the Ottawa Citizen of February 10 as stating that "the new order is expected to run to about C\$4.9 million." Informed observers believe that this would amount to approximately 245-250 thousand cases of salmon.

At the time the 1953 purchase was made, the British Chancellor of the Exchequer expressed the hope that the Canadian fishing industry would buy more British goods to enable Britain to earn dollars for the purchase of salmon in Canada. The Fisheries Association of British Columbia took action on this suggestion and by August 1953 had prepared an order for C\$4½ million of new British purchases of tin plate, mechanical equipment for plants and boats, and fishing gear. Following the preparation of this order, a delegation representing the British Columbia fishing interests went to London to see if there was more equipment available.

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THREE-MILE TERRITORIAL LIMIT TO BE CONTINUED: The British Government does not propose to alter the limits of territorial waters under its jurisdiction, states the December 19 issue of The Fishing News, a British fishery magazine. The Minister of State made this announcement in the House of Commons on December 14. It means that the Moray Firth and the Firth of Clyde will remain open to fishing by foreign trawlers, and several Scottish M. P.'s expressed their disappointment at the decision.

The Minister told the House that the Government sympathized with the inshore fishermen and were conscious of the effect on them of their decision, but said: "Wider considerations arising out of the naval, mercantile, and deep-sea fishery position of this country, and like interests in the other territories concerned, must take precedence."



The territorial waters around the coasts of the United Kingdom and overseas territories for which the British Government is responsible would therefore continue to be delimited by a line drawn three miles from low-water mark, or in the case of bays and estuaries, from a closing line drawn at the first point where they narrowed to 10 miles in width, said the Minister.

The Minister said it was the Government's view that it ought not to be inferred from the judgment delivered by the International Court of Justice in the Anglo-Norwegian fisheries case that, as a principle of international law, a base line drawn in the manner authorized in that particular case would necessarily be applied to all or any other coasts.

The Government considered the true interests of all sea-faring nations were best served by the greatest possible freedom to use the sea for all legitimate maritime activities, and viewed with concern the increasing encroachment on the high seas which had taken place in recent years in many parts of the world.

He added: "At the same time H. M. Government will continue to cooperate in securing the fullest possible measure of conservation of fisheries by means of international agreement through the commissions set up under the International Fisheries Conventions."

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LANDINGS OF ICELANDIC-CAUGHT FISH MEET RESISTANCE: The attempt by a London businessman to beat the ban on Icelandic-caught fish in Britain was tougher than he anticipated, reports the December 12 Fish Trades Gazette, a British trade magazine. New undisclosed proposals for handling the fish were made to the Icelandic trawler owners' representatives in Britain, who then returned to Iceland for further consultations. "I know I can beat the ban on their fish if they give me their full backing, but the fight is tougher than I thought it would be," the businessman said.

The businessman indicated that it was not possible to disclose exactly what he had asked the Icelanders to do or the terms under which he was prepared to continue to handle their fish. He had promised that he would not reveal the terms until after he had received a reply. There had been much speculation and estimates as to what he had lost in handling the Icelandic fish, but he described them as "absolute nonsense." However, it was disclosed that the Icelandic trawler owners have partly financed the break-the-ban operation, and they are unwilling to lose additional money in the venture.

The Icelandic Fisheries Attache at Grimsby in a recent address stated: "What has happened in fact has been that the ban on Icelandic supplies and the boycott of all those who handle the fish has become so completely watertight that it has presented the Icelanders. . . ."with a very much heavier problem than was envisaged. Now a complete overhaul of outlook on the matter is called for."

Later reports indicate that no new agreement was reached and that Icelandic trawlers discontinued landing at the British port of Grimsby late in December.

The London businessman has contacted parties in Belgium, Norway, and Denmark in an attempt to purchase fish. The Danes have sent a party to London to discuss the matter. The London businessman comments; "Their prices are a bit high but I think I can do business with them." The Norwegians have indicated that they can sell more fish than they can catch.



## International

### FOOD AND AGRICULTURE ORGANIZATION

#### REPORT ON SEVENTH SESSION OF CONFERENCE:

**Fisheries Panel:** Numerous fishery matters of interest to the domestic industry were discussed at the Seventh Session of the FAO Conference which concluded its meetings in Rome on December 12. A. W. Anderson, Chief of the Branch of Commercial Fisheries, U. S. Fish and Wildlife Service, and Charles Carry, Director, Fishery Products Division, National Cannery Association, were the fishery advisers on the United States Delegation. The former was elected Chairman of the Fisheries Panel and the latter acted as United States spokesman during its meetings. Representatives of about 30 countries participated in the fisheries meetings.

The Report of the Fisheries Panel expressed general satisfaction with the progress of the program of the Fisheries Division of FAO with certain recommendations as to future emphasis. In this connection it called attention to an article entitled "Improving the Fisheries Contribution to World Food Supplies" in the September-October issue of FAO's *Fisheries Bulletin*. The lengthy and detailed article indicates that world fisheries production can be increased substantially but that there are many problems (which it lists) which must be solved before potential production can be achieved. It was indicated that the article is the basis for the probable approach of the Fisheries Division staff toward future fisheries programming in FAO.

In general, the Fisheries Panel stressed projects that would obtain quick results, such as promotion of fish-cultural practices, improved management of inland fisheries, and work towards improving fishing boats, landings, marketing and distribution facilities, and fishing gear and methods, especially in those countries in which there was need to increase protein food supplies for the indigenous population.

In addition, the Fisheries Panel also emphasized the value of the preparation of a world series of fisheries maps in connection with the proposed Survey of Marine Resources, and suggested that international cooperation in the exploration of unexplored areas be placed before the Meeting on Fishery Resources to be convened in 1955.

In the economics field the Fisheries Panel emphasized that the solution of marketing problems and the development of efficient distribution facilities were equal in importance to increasing production. It was suggested that consideration be given to annual rather than biennial publication of the *Yearbook of Fisheries Statistics*, and that a brief guide on the collection and preparation of statistics be developed for use in those countries lacking adequate statistical systems.

Where similar bodies are not already in existence, the Fisheries Panel stated that Regional Fisheries Councils provided an excellent means for promoting contacts between fishery experts and advancing fisheries development. It also believed

that future consideration should be given to asking participating countries to contribute to part of the costs incurred by FAO in supplying the secretariat to the Regional Councils.

The Expanded Technical Assistance Program, or "action" program of the Fisheries Division, was endorsed with the expressed hope that Technical Assistance Reports on fishery matters could be released from the restricted category for more general use by other countries.

With regard to the Current World Food and Agricultural Situation the Conference concluded that

"In most countries with developed fisheries industries production has levelled off in the last two years owing to increasing difficulties in disposing of fishery products for human food, though there has been a continuing strong demand for fish meal for animal feeding. In less developed fisheries areas increases of considerable local significance have been achieved due to improved catching methods, but inadequate marketing facilities and purchasing power have retarded development."

With respect to the production, marketing, and distribution of fish, the Conference noted that although the fisheries resources of the world contribute only about 10 percent of the total human intake of animal protein, these resources could undoubtedly make a much larger contribution to world food supplies. In certain parts of the world, techniques have already been developed in the culture, capture, and utilization of fish supplies which could quickly bring about a considerable increase. Advanced fishing industries already have the capacity to produce up to the level required to meet the 1960 targets set forth in the FAO *Second World Food Survey*, but lack the incentive of profitable marketing opportunities. The increase in productive capacity must, therefore, take place mainly in those areas where the fisheries industries are largely underdeveloped, where protein needs are most urgent, and where low levels of economic activity and education have hitherto restrained the application of modern commercial practices and equipment. In these areas particularly, there is a clear need for governments to take the initiative in breaking the vicious circle of poverty and low productivity by means of financial assistance and extension work and, above all, by the creation of incentives to produce more. The Conference felt that in many countries there is no clearly understood fisheries policy, that administrative services are inadequate and untrained, and that there is a corresponding absence of contact between the government and the fisherman. The Conference adopted the following resolution:

Recognizing that world fishery resources are capable of yielding a much greater contribution to world supplies of animal protein,

Bearing in mind the great advantage of relieving the heavy pressure on the use of land thereby,

Being convinced that the necessary knowledge and technical means exist and could bring about significant increases in a relatively short period of time,

Having noted that due regard must be paid to certain economic, social and political factors which at present retard the rate of increase in many areas,

Considering nevertheless that the present rate of development could be accelerated by the application of measures more closely adapted to local conditions in the fisheries, and by increased technical advice as well as the use of demonstration equipment,

Recommends that Member Governments should observe the need to:

1. review the prospects for a more rational utilization of fishery resources,
2. establish well-defined policies in respect of these resources,
3. set up permanent fishery services staffed by suitably qualified personnel, endowed with adequate authority and financial support and working in close liaison with all sections of the fishery industries,
4. promote and coordinate measures designed to increase the availability and consumption of fish and its products at costs commensurate with the purchasing power of the potential consumers,
5. report frequently and comprehensively on the progress achieved and the problems encountered.

The importance of the early rehabilitation of Korea's agriculture, forestry, and fisheries was recognized by the Conference and the report of the FAO/UNKRA Mission welcomed with the recommendation that the fullest practicable use be made of the information therein.

Measures to combat protein malnutrition of mothers and children were discussed, and it was pointed out that the development of fisheries can help increase the supplies of protein. In some countries fish culture is an effective method of achieving this end. Special reference was made to antimalarial projects in which intensive cultivation of fish served two purposes: the destruction of mosquito larva and the production of more food. It was recommended that the work of FAO in fisheries, among other fields, be intensified in order to solve the problem of malnutrition.

Monaco and Tunisia were accepted as new members of the General Fisheries Council for the Mediterranean.

Washington Meeting on Surplus Disposal: A direct outgrowth of the discussions on disposal of

accumulating stocks that occupied so much of the attention of the Conference is a meeting of an eight-member Working Party of FAO's Committee on Commodity Problems in Washington scheduled to begin February 23. The members of the Working Party are: Argentina, Egypt, France, India, Netherlands, New Zealand, United Kingdom, United States:

The Working Party is to consider two points--the most suitable means of disposing of surpluses, such as consultative machinery to facilitate disposal; and the principles which should be observed by member nations so that surplus disposal will not have a harmful effect on normal patterns of production and international trade.

Budget Set at \$6,000,000: After an exhaustive review of the proposed program and budget of the Organization for the next two years (1954 and 1955), the Conference resolved a number of different points of view on the budget level by establishing it at \$6,000,000 for each of these years. This is a substantial increase over the \$5,250,000 level of the past two years, the first such major increase since the level was set originally at \$5,000,000 in 1945.

U. S. Percentage Contribution Unchanged: At each Conference, the percentage which each member government contributes to the Organization comes up for review and determination for the next two years. The United States share has been 30 percent for the past two years. A number of delegations have felt that there should be uniformity in this percentage contribution among organizations in the UN system. The United States contributes 33-1/3 percent to the UN.

After a thorough discussion, the United States share was set again at 30 percent for the next two years, but the Conference asked the Council to consider the whole question before the next Conference.

New Director-General: Dr. Philip Vincent Cardon of the United States was unanimously acclaimed the new Director-General of FAO on December 9 during the Seventh Session of FAO's Conference in Rome, Italy.

Dr. Cardon, former Administrator of the Agricultural Research Administration of the U. S. Department of Agriculture, has been closely associated with FAO since its inception. He attended the Hot Springs, Va., meeting in 1943, which laid the groundwork for the organization; the first FAO Conference at Quebec, Canada, in 1945; and four subsequent Conferences. He has been chairman of three FAO groups--the Coordinating Committee, the Working Party on Program of Work and Associated Long-Term Problems, and the Standing Advisory Committee on Agriculture.

The new Director-General is FAO's third administrator. He succeeds Norris E. Dodd of the United States, who has served for the past five years. FAO's first Director-General was Lord Boyd Orr of the United Kingdom, who served from 1945 to 1948. Dr. Cardon will take office early in 1954.

Membership Now 71: FAO's membership has grown from 42 countries which signed the consti-



tution at Quebec in 1945 to 71 countries. Three countries--Libya, Iran, and Yeman--were admitted as members during FAO's Seventh Conference November 23-December 11.

**Food Production Programs:** A change of emphasis in food production programs was the keynote of the Seventh FAO Conference. Delegates agreed that the emphasis on general expansion of food production, vital in the postwar crisis, must now give way to a more selective approach. Pro-

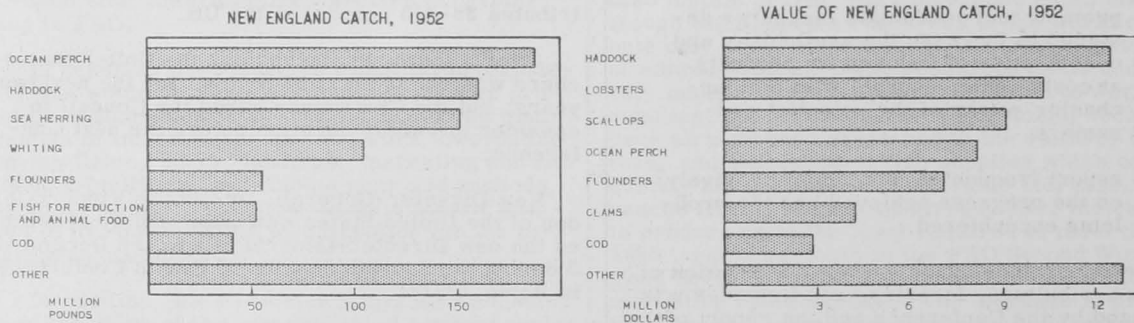
duction must be increased in the areas of greatest need, and in the commodities for which expanded consumption is needed and possible.

A second recommendation to member countries from the Conference is that measures must be taken to enable consumers to buy more of the foods now abundant. These measures may include increased purchasing power, reduced production costs, more efficient marketing including reduced distribution costs, and more flexible price policies.



### NEW ENGLAND FISHERIES--1952

New England Fisheries--1952, C.F.S. No. 966, is an annual summary of the New England fisheries for 1952. It includes tables summarizing the catch by species and by states, catch of certain shellfish in numbers and bushels, operating units by states, and lists the pounds of meats per bushel for certain shellfish. The bulletin also lists the annual catch of the principal species for the past 25 years.



The 1952 catch of fish and shellfish in the coastal areas of the New England States (Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut) totaled 954,562,500 pounds, valued at \$67,293,273 ex-vessel. This represents an increase of nearly 38 million pounds or 4 percent in quantity, but a decrease of \$138 thousand or less than 1 percent in value as compared with the landings of the previous year. Ocean perch landings (189,042,000 pounds) were over 69 million pounds less than they were in 1951, while haddock landings (161,341,000 pounds) were approximately 8 million pounds greater than during the previous year. Herring (153,513,000 pounds) increased nearly 89 million pounds during the year, compared with 1951.

Copies of C.F.S. No. 966 are available free upon request from the Division of Information, U. S. Fish and Wildlife Service, Washington 25, D. C.