



International

YUGOSLAVIA AND ITALY TO SETTLE FISHING DISPUTE

Italy and Yugoslavia commenced negotiations in December 1954 to solve the 2½-year old Adriatic fishing dispute, reports the December 17, 1954, issue of The Fishing News, a British fishery paper.

Between the summer of 1952, when a former fishing agreement lapsed, and the Trieste settlement in October 1954, Italian fishing craft and Yugoslav patrol boats had frequent brushes off the eastern Adriatic rich fishing grounds. In 1953 and the first half of 1954 the Yugoslavs seized over 50 Italian fishing craft alleged to have been in Yugoslav waters, which they claim extend for 10 miles from their coast.

The Italian trade Minister said the negotiations would also include a new trade agreement.

LATIN AMERICA

COOPERATIVE MARINE BIOLOGICAL RESEARCH PLANNED: A group of Latin American specialists in marine biology met in Concepcion, Chile, September 15-17, 1954, in order to study the possibility of establishing an international network of marine biological laboratories in Latin America, and other ways of facilitating the collaboration in this field among the Latin American countries. The meeting was convoked by the Unesco Science Co-operation Office for Latin America and was a sequel to the recommendations for setting up international and regional laboratories made at a meeting held in Montevideo in 1952 upon the initiative of the Unesco Office. The scientists attending the meeting were from Argentina, Brazil, Chile, Cuba, Mexico, Peru, Venezuela, and Uruguay. The Regional Office in Santiago, Chile, of the United Nations Food and Agriculture Organization collaborated in arranging the meeting.

After studying the present situation of research in marine biology in Latin America and its future possibilities, the delegates entered on an extensive discussion about the possibilities and ways of establishing an international network of laboratories. It was unanimously decided to create immediately under the auspices of the Unesco Science Co-operation Office a Latin American Committee to coordinate and facilitate the research work in marine biology. The Committee would remain in office until a permanent organization had been set up. The meeting requested the Unesco Office to prepare a draft convention for an international network of laboratories and convoke a meeting of official delegates in order to establish the corresponding organization, according to the November 27, 1954, issue of Nature, a British scientific journal.

The meeting also studied what other steps could be taken immediately pending the realization of the more far-reaching recommendations, in order to promote research in marine biology, and advised the Unesco Office that two training courses on the methodology of marine biology research and a symposium on plankton should be organized in 1955. It was also recommended that the Marine Biology Journal,

issued by the Montemar Station in Chile, should be widened in scope with a Latin American editorial board.

The Brazilian representatives to the meeting have been duly authorized by the Governor of the State of Sao Paulo to put at the disposal of the Unesco Science Co-operation Office for international research work the complete network of marine biological laboratories and stations and research vessels of the State of Sao Paulo. This offer will make it possible to initiate shortly international research and training programs in marine biology under the auspices of the Unesco Office.

PACIFIC SCIENCE ASSOCIATION

USE OF METEOROLOGICAL OBSERVATION SYSTEMS TO FORESEE FISHERY FLUCTUATIONS IN PACIFIC OCEAN: A plan to study the use of established systems of meteorological observation to foresee fishery fluctuations in the eastern, northern, and tropical Pacific Ocean was the subject for discussion at an informal conference of the Pacific Science Association held at the Scripps Institution of Oceanography in California on November 2 and 5, 1954. The meeting was held to see what could be done to coordinate the efforts of institutions engaged in oceanographic and fishery research in a large-scale long-term program to discover the meteorological and oceanographic causes of the major fishery fluctuations.

Tentative plans include:

1. Norpac: A summer synoptic oceanographic survey of the North Pacific, north of approximately 20° N. latitude, previously projected for 1954 but cancelled owing to physical inability of some of the organizations to participate, was now considered feasible for August 1955. With possible participation from Far Eastern organizations it might be extended to the Asian coast.

2. Eastropic: A southern counterpart of Norpac will be planned for October-November 1955. It is considered that completion of the synoptic studies based on "Shellback" (Scripps Institution of Oceanography, May-August 1952) and on "Mid-Pacific Oceanography" (Pacific Oceanic Fishery Investigations, January 1950-August 1952) will have provided a general understanding of the gross oceanographic features of this area so that Eastropic can advance to a special type of observation designed to give detailed descriptions of current interface phenomena, and to elucidate causes of changes in location and intensity of circulatory features. Coverage is to extend from Baja California to Peru and westward along the equatorial current system to 160° W. longitude.

Eastropic, in addition to the value it would have of itself, would be invaluable preparation for operations in the Geophysical Year. Members of the group will be keeping the Geophysical Year in mind in their planning and it will be a major agenda item for the next annual meeting of this group.

3. Time Series: Ultimate success in relating meteorological, oceanographic, and fishery phenomena will depend on adequate systems observing key events in each field. In meteorology the intensity of the observation in the eastern tropical Pacific is far below that necessary for good description and prediction of events. Since the tuna fleet operates in the area, their participation in reporting weather would greatly augment the intensity in this crucial area.

In oceanography the paramount problem is knowing what kind of continuing information would be useful. Norpac and Eastropic should advance the solution of this problem. The tide-gauge program and the Cabot-type operation planned for the Geophysical Year should advance it further. The group considered it desirable to look forward to tide-gauge operation continuously beyond the Geophysical Year.

In fisheries, difficulties exist in relating the fluctuations in time, place, and rate of capture to oceanographic events for want of sufficient knowledge on the reactions of fishes to physical, chemical, and biological elements in their environment. Laboratory experiments and intensive field observations on reactions are by their nature undertakings by individual institutions, but ready exchange of information on methods and results would facilitate progress.

Organization: It was proposed for further consideration that the various oceanographic and fishery research groups join themselves in a major group, to be known as the Eastern Pacific Oceanic Council, for the purpose of furthering oceanographic and biological investigations in the eastern Pacific for the benefit of fisheries. The functions of the Council, which would be a completely informal group with no official domestic or international governmental status, would be to assist in coordinated planning and execution of work at sea and to exchange information on research program results.

Participation: Persons from the following institutions participated in the November conference: Peruvian Hydrographic Office; Inter-American Tropical Tuna Commission; Scripps Institution of Oceanography; American Tunaboat Association; California Department of Fish and Game; South Pacific Fishery Investigations, U. S. Fish and Wildlife Service; Stanford University; California Academy of Sciences; Pacific Marine Fisheries Commission; Oregon Fish Commission; University of Washington, School of Fisheries and Department of Oceanography; Pacific Biological Station, Nanaimo, and Pacific Oceanographic Group, Nanaimo; University of Hawaii; Pacific Oceanic Fishery Investigations, U. S. Fish and Wildlife Service; Office of Naval Research, Geophysics Branch; Branch of Fishery Biology, U. S. Fish and Wildlife Service; State Department; George Vanderbilt Foundation.

TERRITORIAL WATERS

BRITISH PROTEST PERUVIAN 200-MILE CLAIMS: The British Government was questioned in the House of Commons on December 20, 1954, concerning its representations to Peru as a result of the latter's claims to a territorial waters limit of 200 miles, states a December 23, 1954, U. S. Embassy dispatch from London. The Secretary of State for Foreign Affairs replied:

"... Her Majesty's Government do not admit the claim of the Peruvian Government to 200 miles of territorial waters or indeed to anything outside the normal 3-mile limit. The Peruvian Government were so informed in Notes delivered on 6th February, 1948; 15th October, 1952; 21st August, 1953; and 31st August, 1954. In these Notes it was stated that H. M. Government cannot recognize that British nationals and British vessels are subject to any form of control or restriction imposed by the Peruvian Government outside a 3-mile limit."

The Secretary of State for Foreign Affairs was also asked how many cases have been brought to his notice of countries making abnormal claims over the waters around their coasts, and he answered:

"Chile, Peru, Ecuador and El Salvador have claimed territorial waters of 200 miles in breadth. Argentina, Costa Rica, Honduras, South Korea, Nicaragua and Panama have made unspecified claims to waters lying above the Continental Shelf.

"Twenty-two other countries in Latin America, the Middle East and Europe have made claims to territorial waters of a breadth between three and twelve miles. The most recent note from the British Government (August 31, 1954) is as follows:

BRITISH EMBASSY, LIMA.
August 31, 1954

ATTITUDE OF HER MAJESTY'S GOVERNMENT TOWARDS THE DECLARATION OF THE MARITIME ZONE OF THE SANTIAGO CONFERENCE OF 1952.

Your Excellency,

With reference to Mr. Donnelly's Note No. 11 of the 6th of February, 1948, and Sir Oswald Scott's Notes No. 113 of the 15th of October, 1952, and No. 32 of the 21st of August, 1953, relating to territorial waters and the Continental Shelf, I have the honour to invite your attention to Supreme Resolution No. 179 of the 11th of April, 1953, in which the Peruvian Government approved the Declaration on the Maritime Zone signed at Santiago de Chile on the 18th of August, 1952, on the occasion of the first conference on the exploitation and preservation of the maritime riches of the South Pacific.

In this declaration the Governments of Peru, Chile and Ecuador purport to claim exclusive sovereignty and jurisdiction over the sea which washes the coasts of their respective countries up to a distance of 200 sea miles, in which exclusive sovereignty and jurisdiction they also include exclusive sovereignty and jurisdiction over the soil and sub-soil in the maritime zone or area defined. The declaration further purports to make provision for the regulation of fishing and whaling in the maritime zone.

Her Majesty's Government regret that they cannot recognize the validity of these claims, and wish to remind the Government of Peru of the attitude of Her Majesty's Government concerning territorial waters, sovereignty over areas of the sea bed and sub-soil and the regulation of fishing.

Her Majesty's Government do not in principle recognize claims to a greater limit of territorial waters than three miles from low watermark, or, in the case of bays and estuaries, from a closing line drawn at the first point where they narrow to ten miles in width. Her Majesty's Government regard all sea areas outside these limits as part of the High Seas, on which (apart from exceptions not here material) vessels are subject solely to the jurisdiction and control of the State of their flag, and would therefore be unable to admit the claim of the Government of Peru to exercise jurisdiction and control in these areas over any vessels other than Peruvian vessels.

Her Majesty's Government, while not opposed in principle to claims for the exercise of sovereignty over the seabed

His Excellency Dr. D. David Aguilar Cornejo,
Minister of Foreign Affairs, LIMA.

contiguous to the coast of Peru, are unable to accept the claims set forth in the declaration of August 18, 1952, which purports to define the Continental Shelf as extending to the unprecedented distance of 200 nautical miles from the coast of Peru without regard to the depth of the sea. Her Majesty's Government would refer in this context to the article on the Continental Shelf adopted by the International Law Commission at its fifth session. Article I states that the term "Continental Shelf" as used in the Articles refers to the seabed and subsoil of the submarine areas contiguous to the coast, but outside the area of the territorial sea, to a depth of 200 metres. Article III states that the rights of the coastal state over the Continental Shelf do not affect the legal status of the superjacent waters as high seas. Article VI, section 1, states that the exploration of the Continental Shelf and the exploitation of its natural resources must not result in any unjustifiable interference with navigation, fishing, or fish production. In the opinion of Her Majesty's Government these articles are in general accordance with accepted principles of International Law.

Her Majesty's Government also recognize that the conservation of natural resources in the high seas outside territorial waters may be a legitimate interest of the coastal State; but this is only on condition that Conservation is effected by agreement with those States to whose nationals the conservation measures are to be applied. Her Majesty's Government note however with regret that the declaration of August 18, 1952, claims to establish conservation over the high seas in concert only with the Governments of Chile and Ecuador, without any such agreement with the other governments which may be concerned. Her Majesty's Government are therefore obliged to place firmly on record with the Government of Peru that, until an agreement has been reached to which Her Majesty's Government are a party they do not recognize, and will not consider their nationals as being subject to, any measures of restriction or control over the high seas outside territorial waters as recognized by Her Majesty's Government which the Government of Peru may see fit to promulgate in pursuance of the declaration.

I avail myself of this opportunity to renew to Your Excellency the assurance of my highest consideration.

(SIGNED) W. H. MONTAGU-POLLOCK.

TRADE AGREEMENTS

ITALIAN-IRANIAN AGREEMENT INCLUDES FISHERY ITEMS: Representatives of Iran and Italy in Tehran on September 15, 1954, signed a new list of goods (including fishery products and fishing twine) to be exchanged under the provisions of the Trade and Payments Agreement of 1952 which remains in effect, according to a U. S. Embassy dispatch (November 18, 1954) from Tehran. Under the agreement Italy will export to Iran fishing twine. Iran will ship to Italy the following fishery items: caviar valued at US\$30,000 (with Government authorization); mother-of-pearl, shells, and raw shells, \$60,000; smoked salmon and fish flours with no values specified.

UNITED NATIONS

EXPERTS MEET TO ARRANGE INTERNATIONAL FISHERIES CONSERVATION:

A group of experts appointed to advise the Secretary-General of the United Nations on the preparation of a technical conference on the conservation of fisheries and other resources of the sea met at United Nations Headquarters in New York City on January 10-13, 1955.

The advisory group, composed of 8 experts and 2 observers, discussed the agenda and other technical problems connected with the convening of the conference, officially titled, "International Technical Conference on the Conservation of the Living Resources of the Sea," which will meet in Rome in April 1955. The Secretary-General will now invite all United Nations members as well as member states of the specialized agencies to participate in the conference.

The results of the Rome conference, under the terms of General Assembly resolutions adopted during its ninth session, will be referred to the International Law Commission. The International Law Commission has had under study the wider problems relating to the high seas and territorial waters, etc., and the Assembly considered that the problem of the resources of the sea is linked to their solution. All U. N. member states and member states of the specialized agencies are invited to participate in the forthcoming conference.

The advisory group, presided over by Dr. Ansgar Rosenborg, Acting Director of the U. N. Division of Economic Development, was composed of the following experts:

Professor Umberto d'Ancona (Italy), Chairman, General Fisheries Council for the Mediterranean, Rome;
 Dr. Nestore Bernardo Cacciapuoti (Italy), Deputy-Director, Natural Sciences Department, UNESCO, Paris;
 Dr. Donovan B. Finn (Canada), Director, Fisheries Division, FAO, Rome;
 Dr. Arni Fridriksson (Denmark), Secretary-General, Permanent International Council for the Exploration of the Sea, Charlottenlund Slot, Denmark;

Dr. John L. Kask (Canada), Chairman of the Fisheries Research Board of Canada, Ottawa;
 Dr. Cecil Miles (United Kingdom), Secretary, Indo-Pacific Fisheries Council, Bangkok;
 Milner B. Shaefer (United States), Director of Investigations, Inter-American Tropical Tuna Commission, La Jolla, California;
 Dr. Enrique del Solar (Peru), Sociedad Nacional de Pescaria, Ministry of Foreign Affairs, Lima, Peru.

The two observers participating were:

William C. Herrington (United States), Special Assistant for Fisheries and Wildlife to the Under-Secretary of State, Department of State, Washington, D. C.;

W. Vincent J. Evans (United Kingdom), Legal Adviser to the United Kingdom Delegation to the United Nations New York.

WHALING

ICELAND AND JAPAN OBJECT TO BAN ON BLUE WHALE: In an effort to prevent extinction, the International Whaling Commission at its last meeting at Tokyo in July 1954 recommended the total prohibition of the taking of blue whales in the North Atlantic and North Pacific oceans for a period of five years. That recommendation was made because of the depleted numbers of the mammal through the heavy toll taken over the years, according to The Fishing News (November 19, 1954), a British fishery magazine.

According to a press notice issued by the International Whaling Commission, both Iceland and Japan object to this proposed control. In the case of Japan they have intimated that while rejecting the prohibition they will take voluntary steps to conserve whaling resources in the North Pacific area.

The three main Japanese whaling companies have agreed to send only one fleet to that area in 1955 although two operated there in 1954.

In the case of Iceland, no reason has been given for its refusal to cooperate in the conservation of the blue whale.

Under the procedural rules of the International Whaling Commission, the prohibition recommended would have become operative in the absence of objections after a period of 90 days of notice given which was due to end at midnight, November 7, 1954.

Because these two objections have been received, another 90 days' notice is required during which the other parties interested in conservation (who have not objected to the control) may consider their course of action. The other parties in the North Atlantic area are Norway, Faroe Islands (Denmark), West Greenland (Denmark), Newfoundland (Canada), and Great Britain.

The blue whale, the largest of all whales and the most gigantic land or sea animal known to have lived or to be living, is threatened with total extinction. It can obtain a length of about 100 feet, but its average size is between 80 and 85 feet. A good specimen yields from 100 to 120 barrels of oil.

The North Atlantic catch of blue whales in 1954 was Iceland 5, Norway 7, Faeroes 2, West Greenland 1, Newfoundland and Great Britain none. The total catch in the area was thus only 15 blue whales. At that rate the species is obviously in grave danger of extinction.

The Japanese catch in the North Pacific of blue whales in 1954 was 22. It was 47 the year before, 7 in 1950, and 14 in 1949.



Algeria

FISH AND SHELLFISH SUPPLY AND CONSUMPTION, 1953: Algerian production of fish and shellfish in 1953 totaled 233,000 metric tons, total imports amounted to 63,000 tons, and exports 70,000 tons. This made a total of 226,000 tons available for human consumption, a U. S. consular dispatch (November 17, 1954) states.



Australia

DYNAMITE INEFFECTIVE IN REPELLING SHARKS: When carbide and gelignite charges were used to repel sharks at Point Cloates whaling station (Western Australia), the sharks were hardly affected, and the experiments proved a failure, says the Australian Fisheries Newsletter.

Charges of gelignite consisting of four 8-inch plugs with a 16-second fuse were used. When the first charge was thrown into the water about 20-feet from the whales, which many sharks were attacking, sharks near the charge were able to swim away before it exploded. Some continued to feed off the whales and none seemed to suffer any effects from the blast.

When a second charge was exploded close to five sharks, one was blown over on its back but quickly recovered and swam away. The other four were not affected. All the shark repellants so far tried at the station have proved ineffective.



Benelux Countries

FISHERY PRODUCTS SUPPLY AND CONSUMPTION, 1953/54: Total production of fresh and canned fishery products (including mussels and oysters) in Belgium and Luxembourg during 1953/54 (August-July) amounted to 66,000 metric tons, according to a November 16 U. S. Embassy dispatch from Brussels. In the same period net imports of fishery products totaled 52,000 metric tons. The consumption of fishery products during the period was estimated at 118,000 metric tons. Estimates for the year 1954/55 place production of fresh and canned fishery products at 63,000 metric tons, net imports 48,000 tons, and total consumption 111,000 tons.

Net imports of fish oil into the Benelux countries in 1953/54 totaled 18,000 metric tons. Since about 3,000 tons were for nonfood use, consumption for food amounted to 15,000 tons. Net fish oil imports for 1954/55 are estimated at 14,000 tons.



Brazil

FISHERY PRODUCTS SUPPLY AND TRENDS, 1954: The estimated Brazilian fish catch in 1954 amounted to about 200,000 metric tons as compared with 190,000 tons in 1953 and 174,630 tons in 1952. Total Brazilian imports of fishery products in 1954 were estimated at 25,000 metric tons, while imports in 1953 amounted to 22,527 tons and in 1952 totaled 49,193 tons.

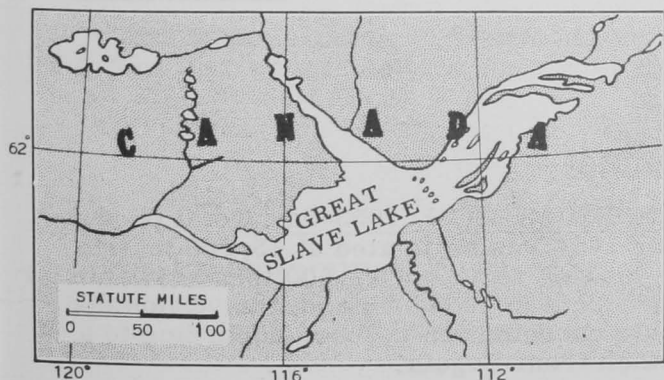
Fish is available in Brazil mainly in sea ports or in rivers near the source of the catch. There is little freezing or canning and present transportation and storage facilities are inadequate for proper handling. Fish catches nevertheless have been increasing. Fish is not commonly a part of the poor man's diet as prices are very high, usually considerably higher than meat.

The Klein-Saks mission had several recommendations to make on Brazil's fishing industry, such as introducing salting and drying procedures for greater fish utilization in the interior, building freezer warehouses to preserve large catches, research and mapping to locate fishery resources, and eliminating the present 8 percent marketing tax.

Brazil imported 22,500 tons of dried fish in 1953 and would probably import at least this quantity in 1954. Dried-fish imports are less of an exchange problem since imports can be made from European countries in trade-agreement currencies.



Canada



GREAT SLAVE LAKE CATCH SHOULD CONTINUE LARGE: Great Slave Lake in Canada's Northwest Territories will continue for years to come to yield an enormous annual catch of about 9 million pounds of fresh-water fish in the opinion of Canadian fishery scientists. This lake covers an area of 11,070 square miles and is the deepest lake on the North American continent. It is also the continent's largest producer of lake trout and whitefish.

combined. The report states that the lake is unique in that it supports the only known large fresh-water commercial fishery studied from its inception and regulated according to scientific findings. Commercial fishing opened on the Lake in 1945 and most of the catch finds its way into United States markets, according to a recent release from the Canadian Department of Fisheries.

The Director of the Central Fisheries Research Station, Winnipeg, reported to the annual meeting in Ottawa of the Fisheries Research Board of Canada that Great Slave Lake is not being overfished at the present rate of exploitation.



Ceylon

JAPANESE LONG-LINE VESSEL MAKES GOOD TUNA AND COD CATCH OFF CEYLON: A Japanese-operated long-line vessel in the first experimental trip off Ceylon caught 14 metric tons of fish, mainly large tuna and cod, according to the November 19 issue of The Fishing News, a British fishery magazine. The vessel used 35 miles of long lines and covered 550 miles in 10 days. Fishing was done on alternate days, allowing time for the crew to dress and preserve the fish on ice.

This test cruise is part of a joint Japanese-Ceylonese research program conducted by a Japanese research team which is concentrating on tuna fishing. Experiments in various aspects of fishing such as wind velocity, water currents, and tides have been made. If the survey proves favorable, a Japanese firm will be allowed to set up a fish-canning factory in partnership with Ceylonese interests. The necessary permission has already been granted by the Ceylonese Government. Ceylonese fishermen will be trained to operate the fishery.

The corporation intends to can fish, make maldive, and dry fish, and establish a boat-building yard. One of the Ceylonese promoters stated that he was in touch with U. S. interests to supply yellowfin tuna to the United States market.

Note: See Commercial Fisheries Review, December 1954, p. 56.



Chile

FIVE FISHING VESSELS BOUGHT FROM SPAIN: Chile has acquired from Spain five small fishing vessels for service on the Chilean coast, according to a Chilean press report. These vessels, which were expected to arrive in Chile early in December 1954, are equipped with 250-hp. motors, have a storage capacity of 60 metric tons, and accommodations for 10 men. Cost of each vessel is estimated at 10 million pesos (US\$50,000), reports the December 25, 1954, Foreign Trade, a Canadian Government publication.



Colombia

FISHERY PRODUCTS SUPPLY AND CONSUMPTION, 1953-54: Total production of fishery products in Colombia during 1954 was estimated at 15,000 metric tons and imports amounted to 2,500 tons, making a total of 17,500 tons available for food. There were no exports of fishery products in 1954. In addition, Colombia imported 500 tons of marine oils for ultimate consumption in food, according to a November 29, 1954, U. S. Embassy dispatch from Bogota.

Colombian production of fishery products in 1953 totaled 15,000 tons and imports amounted to 2,100 tons; the total supply available for food was 17,100 tons. Marine oil imports in 1953 totaled 500 tons.



Costa Rica

STATUS OF THE FISHERIES: Although Costa Rican waters abound with fish, domestic consumption of fresh fish is small and canned fish is largely imported. Tuna is the most valuable commercial fish, and is the only variety which figures largely in exports. However, the tuna are caught, processed, and shipped abroad by North American companies. Fisheries byproducts, such as fertilizer, would be useful to the country but are not available in sufficient quantity, according to a recent U. S. Department of Commerce economic report on Costa Rica.

A rough estimate of the value of the salt-water fishing industry to Costa Rica in 1949, including boat licenses, export taxes, contract payment on export of frozen tuna, and miscellaneous items, amounted to nearly US\$79,000, approximately 15 percent of the recorded value of fish exports. The total revenue derived by Costa Rica from fisheries in 1949, both salt water and fresh, including items for export and domestic consumption, was about US\$300,000.

One of the unfavorable aspects of the 1953 economy was the increasing decline of the fishing industry in Puntarenas. Restocking of the Gulf of Nicoya with bait fish appeared by the end of 1953 to have been a success, but it remained to be seen whether the United States tuna fleet would resume putting into Puntarenas in anything like its former numbers. Deliveries of the small fleet of Costa Rican tuna boats to Puntarenas' small cannery were insignificant, and local shrimp boats seemed unable to locate or exploit any sizable banks. At the end of 1953 the Ministry of Agriculture was debating measures to stimulate and expand Pacific Coast fishing.

The following figures point to the decline in Costa Rica exports of fishery products since 1948:

Tuna:	1951	1948
Frozen	US\$19,498	US\$676,665
Canned	11,677	131,395
Shark livers	15,057	42,753
Fish livers	1/	11,728
Live turtles	12,135	4,126
Total exports	58,367	866,667

1/ Data are not available.

Source: Direccion General de Estadistica; Estadistica de Comercio Exterior, 1948 and 1951.

Costa Rican exports of frozen and canned tuna to the United States in 1951 totaled 3.0 million pounds as compared with the 1949 total of 9.0 million pounds.



Denmark

FISHERY PRODUCTS SUPPLY AND CONSUMPTION, 1953/54: Total production of fishery products in Denmark during 1953/54 (August-July) amounted to 351,400 metric tons, an increase of 20 percent as compared with the previous year. All of this

increase was in fish for reduction, a November 12, 1954, U. S. Embassy dispatch from Copenhagen points out. Danish imports of fishery products in 1953/54 totaled 32,200 metric tons, bringing the total supply available during the year to 383,600 metric tons. Stocks on hand at the beginning and end of the period are not available but usually are very small and fluctuate very little.

Danish fishery products (except canned) used for domestic consumption during 1953/54 totaled 50,000 metric tons, and fish used for canning amounted to 30,000 tons. Fish reduced to fish meal and oil totaled 199,200 tons; while the remainder of the supply (104,400 tons) was exported in 1953/54.

Estimates for the Danish fish supply in 1954/55 are: production (minus waste) 325,000 metric tons, imports 30,000 tons, and exports 95,000 tons.



Egypt

SPONGE FISHERY PRODUCTION, 1954: Production of sponges during the 1954 Egyptian sponge-fishing season totaled 36,987 pounds, reports a U. S. consular dispatch (November 27) from Alexandria. The concessionaire had expected a yield of about 55,000 pounds. Owing to the delay alleged to have been caused by indecision

Egyptian Sponge Production by Types and Grades, 1954				
Type	1st Grade	2nd Grade	3rd Grade	Total
	(In Pounds)			
Honeycomb	12,100	6,050	3,025	21,175
Turkey cup	6,875	2,475	1,650	11,000
Zimoca (zimouha)	3,025	1,375	412	4,812
Total	22,000	9,900	5,087	36,987

of the Egyptian authorities in negotiating the concession, actual fishing operations were retarded, and the Greek fishermen available when the concessions were granted were less capable than the average Dodecanesian sponge fishermen. It is said that the best fishermen operated in waters off the Libyan coast (40 boats) since their permits were granted very early in the year.

The Egyptian Government granted 16 sponge-fishing permits at £E1,000 each (US\$2,880) for a total of £E16,000 (US\$46,080).



Finland

FISHERY PRODUCTS SUPPLY AND UTILIZATION, 1953/54: Total Finnish production of fishery products in 1953 amounted to 61,400 metric tons round weight-- comprised of a salt-water catch of 42,500 tons in home waters and 1,200 tons in Icelandic waters, and a fresh-water catch of 17,500 tons. Finnish imports of fishery products (product weight) in 1953/54 (August-July) totaled 12,200 tons, and the stocks on hand August 1, 1953, were 300 tons, according to a November 23, 1954, U. S. Embassy dispatch from Helsinki. The total supply of fishery products available during 1953/54 was estimated at 73,900 tons.

The utilization of the 1953/54 supply included 56,100 metric tons consumed as food, 3,500 tons for fish meal, 14,000 tons lost in processing, and a 300-ton supply on hand at the end of the period (July 31, 1954).

Production of fishery products in Finland during 1954/55 is estimated at 60,000 metric tons. Estimates of utilization are: human consumption 56,000 tons, fish meal 3,500 tons, loss in processing 14,000 tons, and carryover at the end of the year 300 tons.

Formosa (Taiwan)

REVIEW OF THE FISHERIES, 1954: Production, January-October: Total production of fishery products in Formosa (Taiwan) during the first 10 months of 1954 amounted to 131,384 metric tons.



Formosan-built trawlers. To increase the fish catch of the island, the United States Foreign Operation Administration has earmarked funds for construction of 30 ocean-going fishing vessels.

Of this, offshore fisheries accounted for 22,901 tons, inshore fisheries 35,558 tons, coastal fisheries 39,647 tons, and fish culture 33,278 tons. The Formosan fisheries production goal for 1954 was 140,000 metric tons. The Formosan fisheries production of 130,593 tons in 1953 established a new record in volume, surpassing the previous record of 119,520 tons in 1940 which was during the Japanese administration.

Mechanization of Small Fishing Craft: Some 7,500 sampans and 14,000 bamboo rafts are engaged in coastal fishing in Formosa. A program is now under way to install Diesel engines of 4 to 6 horsepower on the sampans. Low interest loans are provided by the Fisheries Bureau and the Joint Commission on Rural Recon-

struction to the fishermen for procuring the engines (mostly made in Japan). Up to the end of 1954, a little over 100 sampans were thus mechanized. The result has been very satisfactory. In some localities the fishermen on mechanized sampans are making $2\frac{1}{2}$ times as much money as the fishermen on sampans without engines.

New Research Vessel: Construction of the 100-ton research vessel M/V Hai Ching in Japan was completed, and the vessel was brought to Formosa in April 1954. The Hai Ching belongs to the Taiwan Fisheries Research Institute, and is equipped with mechanical refrigeration, fish finder, direction finder, radiotelephone, etc. It has already made two fishing trips to the fishing grounds north of Formosa and one trip to the South China Sea. Exploratory fishing was the main purpose of these trips.

--T. P. Chen,
Joint Commission on Rural Reconstruction
Taipei, Taiwan

FISHERIES OUTLOOK: Significant increases in fisheries production have been achieved in Formosa during recent years, reports a November 19, 1954, U. S. Embassy dispatch from Taipei.

The Government's Four-Year Plan (1953-56) includes provisions for the increase and improvement in all the pertinent aspects of the industry including boats, equipment, shore facilities, refrigeration, and fish-pond culture. The policies of the Agricultural Four-Year Plan as they affect fisheries are:

1. To utilize fully the amount of United States aid funds available in constructing fishing vessels and shore installments, with the objective of turning the prevailing restricted fishery production, consisting chiefly of coastal fishery and fish culture, into broadened and full-scale production, including deep-sea, inshore, and coastal fisheries and fish culture.

2. To increase the supply of fish locally for the purpose of improving the diet of the military and civilian population and to save the current disbursements of foreign exchange on the import of dried cuttlefish and salted fish.

3. To carry on the construction of fishing harbors and shore installations in order to afford better facilities and opportunities for fishermen.

It is estimated that the funds required for the fisheries programs will total NT\$46.0 million (US\$336,000) in fiscal year 1955, and NT\$41.3 million (US\$550,000) in fiscal year 1956.



Fish auction at Fisheries Rehabilitation Administration fish market in Keelung, Formosa.

Formosan Fisheries Production Goals, 1955-56		
Fishery	1955	1956
	.(Metric Tons) .	
Deep sea	39,000	45,000
Inshore	42,000	44,000
Coastal	42,500	43,000
Fish culture	36,500	38,000
Total	160,000	170,000

Formosan fisheries production goal for 1955 is set at 160,000 metric tons and for 1956 at 170,000 tons (see table):

The total value of Formosan sea products imports in fiscal year 1955 is estimated at US\$4.0 million and in 1956 at US\$5.0 million. The value of fish-meal imports during the same years is estimated at US\$3.0 million and US\$5.0 million, respectively.

The value of Formosan exports of sea products in fiscal year 1955 and 1956 are estimated at US\$350,000. The value of fish-liver oil exports for fiscal years 1955 and 1956 are estimated at US\$100,000 for each year.



France

FISHERY PRODUCTS SUPPLY AND CONSUMPTION, 1953/54: Total French production of sea fish (excluding salted cod production of 50,000 tons) in 1953/54 (July-June) was estimated at 327,000 metric tons and shellfish at 10,000 tons. Imports exceeded exports of sea fish by 17,000 tons, shellfish by 1,390 tons, and canned fish and shellfish by 25,174 tons; but exports exceeded imports of salted, dried, and smoked sea fish by 23,327 tons. The net import trade balance for all fishery products was 20,237 tons. Per-capita consumption of all fishery products in 1953/54 was estimated at 21.3 pounds.

During 1952/53, French production of sea fish (excluding salted cod) totaled 315,000 metric tons and shellfish 14,000 tons. Imports exceeded exports of sea

fish by 13,124 tons, shellfish by 3,514 tons, and canned fish and shellfish by 25,676 tons; but exports exceeded imports of salted, dried, and smoked sea fish by 12,690 tons. The net import trade balance for fishery products was 29,624 tons. Per-capita consumption of all fishery products in 1952/53 amounted to 23.8 pounds, somewhat higher than the consumption of 21.3 pounds the previous year and the prewar consumption of 22.9 pounds.



French Morocco

SARDINE FISHERY TRENDS, OCTOBER-DECEMBER 1954: Production: The French Moroccan sardine fishing fleet had poor success during the last quarter of 1954, reports a December 28, 1954, U. S. consular dispatch from Casablanca. Catches were particularly light during the fall months, and the quality was mediocre.



According to reliable information, the total French Moroccan sardine catch at the end of September 1954 was 54,000 metric tons, compared to 84,000 tons at the end of September 1953. The industrial fishing ports of Agadir and Safi were at a particular disadvantage because of the fishing situation; the former port reported sardine catches through early October 1954 of 25,000 metric tons, compared to nearly 40,000 metric tons at the same time in 1953.

One-third of the Agadir fleet was reported to be covered with provisional seizures for debts totaling over 100 million francs (US\$286,000). A similar situation existed at Safi where the debts of the fleet owners were even higher.

The sardine schools appeared to have partially abandoned the southern Moroccan coast, since relatively better catches were frequently made farther north near Mogador and Mazagan, but even in

Typical sardine vessel used for purse seining by Moroccan fishermen.

these ports the season was not encouraging.

Canning: The sardine and tuna catches delivered to French Moroccan canneries have been of mediocre quality and insufficient quantity to permit the industry to produce and export under normal conditions, hence, the income of this industry for 1954 was considerably reduced. Nevertheless, owing to the reorganizational agreements which entered into effect in July 1952 and will continue through mid-1955, the industry appears to be as prepared as possible to withstand present difficulties. With a view to the renewal of these measures and agreements governing the formation of canners associations and their continuation in effect during another five years at least, the Director of Commerce in June 1954 issued a decision designed to modify these relationships and to give them a more solid juridical framework. The principal provisions of this decision are:

- (1) The 600,000-case duty-free import contingent for the French metropolitan market for 1955/56 will be distributed among producers on the basis of their average exports during the period June 1949 through June 1953;
- (2) A right of examination is assured to the federation of canners and the Protectorate administration to insure that agreed minimum export prices are respected by shippers;
- (3) Each producer must fill an assigned annual quota of sales outside the Franc zone; if he succeeds in selling more than his quota his portion of the French contingent will be increased proportionately (to a maximum of 8 percent) or reduced (to a maximum of 5 percent) in the event of failure to fill the quota;
- (4) Injustices which have resulted from the distribution of the French contingent according to the system in effect since 1952 will be remedied by distributing 5 percent of the 1955/56 contingent among producers thus disadvantaged.

During September 1954 another governmental measure appeared which affected the fish-canning industry. The Office Cherifien de Controle et d'Exportation, the official agency controlling the standard of foodstuff exports, decided that henceforth canned fish exports will be classified and shipped according to quality and grade in accordance with the preferences and standards of the various foreign markets for which they are destined. Thus a particular foreign customer will be more likely to receive the quality and size of sardine which best suit his taste, and to find this product preserved in the oil or sauce of his preference.

Exports: Total French Moroccan exports of canned fish during the first nine months of 1954 amounted to 22,096 metric tons, nearly 25 percent lower than the 29,396 tons exported in the corresponding period of 1953, according to official statistics. This development was due to the absence of stocks from other years combined with the consequences of a poor fishing season in French Morocco and a favorable fishing and canning season in Portugal. The local industry was preoccupied in obtaining sufficient good-quality fish to supply existing markets, hence it appeared unlikely that efforts to develop foreign markets could again be made before the beginning of the 1955 fishing season.

Published reports covering the first six months of the year showed more specifically that French Morocco had exported 528,000 cases of sardines--270,000 fewer than in the first half of 1953--while Portugal exported some 777,000 cases, or 113,000 cases more than in 1953. French Moroccan producers sold 136,000 fewer cases of sardines to Indochina, 104,000 fewer cases to metropolitan France, and fewer cases to the United States. Exports to Great Britain, on the other hand, reportedly rose to 27,000 cases during the first six months, compared to less than 1,000 cases in the corresponding period of 1953, following the placing of this commodity under the Open General License regulations in that country.



German Federal Republic

WHITE FISH LANDINGS BY ICELANDIC VESSELS PLANNED TO STABILIZE MARKET: In an attempt to counteract severe fluctuations in the domestic fish market, the West German Federal Government has been endeavoring to adapt fish supply to actual demand through a bilateral trade agreement concluded with Iceland in July 1954. This agreement provides for increased and better-timed landings of white fish¹ by Icelandic vessels, a November 10 U.S. consular report from Bremen states.

¹The term white fish covers all species of marine fish, except herring and shellfish.

White fish comprises about 50 percent of all sea fish consumed in West Germany. The bulk of all white fish consumed in West Germany is caught by German fishermen. Imports from other countries of this type of fish play a minor role in quantity, but they are important as a stabilizing factor on the German market. Landings of white fish by German vessels during the past 3 years averaged 270,000 metric tons as compared with annual imports from other countries of 13,500 tons, equal to 5 percent of the total white-fish supply. In the past 3 years Iceland has supplied between 50-57 percent of these imports. Other important fishery products import items in 1953 were: fresh herring and sprats 54,500 tons, pickled herring 10,280 tons, fish preserves 14,896 tons.

During the first seven months of the year landings of white fish by German vessels are plentiful. However, from about the beginning of August until the end of December, when a large part of the German trawler fleet catches herring only, there is a noticeable lack of white fish, invariably resulting in steep price increases. According to the trade, these fluctuations in supply and price have had a tendency to scare consumers away from the fish shops, a condition running directly counter to the endeavors being made both by the fish trade and the Government to promote fish consumption.

In order to deal with the problems involved in bringing about a uniform supply of fish to the German market, a committee was formed several years ago consisting of representatives of the fishing trade--producers, processors, and distributors--under the chairmanship of an official of the Fish Section in the Foreign Trade Division of the Federal Food Ministry. This committee worked out plans under which only a certain percentage of the trawler fleet should be diverted from the white fish trade for the catching of herring. But even under this plan, which has more or less been adhered to by the fishing companies, the supply of white fish was found to be inadequate. As a result, during the second half of each year fish processors and traders are usually clamoring for additional imports of white fish from other countries to offset the temporary shortage in domestic landings and to stabilize prices. Of all European fish-producing countries, Iceland seems to be the only potential additional supplier of white fish.

In past trade agreements between Iceland and the West German Federal Republic, ample provisions had been made for the importation of Icelandic white fish. Unfortunately, these quotas have never been utilized in full by the Icelandic producers principally because of low returns received. Reportedly, Icelandic fish landings in West German ports have not always met the quality standards and much was sold to fish-meal factories. Icelandic producers thus received less for their fish in German auctions. This discouraged them from landing more fish in West German ports. There have also been complaints that Icelandic trawlers received discriminating treatment in German ports as they were not unloaded until all German trawlers in port were unloaded first; further that discharging fees for Icelandic catches were 50 percent higher than for comparable German landings, and that the auction fee was 4½ percent instead of the 4 percent charged for auctioning German-caught fish. On the other hand, German fishery officials have stated that the Icelandic supplies very often arrived at inopportune times, when ample supplies were arriving by German trawlers.

To overcome all these difficulties, an agreement worked out between Iceland and the West German Federal Republic was added in the form of an additional protocol to the trade agreement between the two countries which became effective July 1, 1954. In accordance with this agreement, steps have been taken by the authorities in Germany to avoid any discriminatory treatment of Icelandic fishing vessels or catches. The German Committee for Market Supply regularly issues recommendations as to when and what quantities of Icelandic fish are needed to fill the gap in the German white fish catch. The Icelandic vessels have agreed to follow these recommendations. In both countries a central authority has been instituted, whose func-

tion is to properly time the arrival of Icelandic fish catches in German ports, since experience has shown that the arrival of too many trawlers at one time and the resultant acute oversupply tends to depress prices considerably. Icelandic fishermen agreed to a stricter adherence to German quality standards for edible fish.

During September and October 1954 landings of Icelandic white fish in West German ports totaled 5,301 metric tons as compared with 2,897 tons and 4,546 tons for the same month in 1953 and 1952, respectively.

It was reported that in November 1954 there was expected to be a further increase in landings of Icelandic fish. In the recent trade agreement the West German Government has declared its preparedness to license imports of Icelandic white fish up to DM7.5 million (US\$1.8 million). The same amount was stipulated for 1952 and 1953, but in each year white fish supplies from Iceland did not exceed DM2.8 million (US\$670,000). Icelandic supplies in 1954 through October were valued at approximately DM2.5 million (US\$600,000). It had not been possible, though, to determine yet whether Iceland would ship fish up to the full quota in 1954. The Federal Food Ministry indicated that it would not come as a surprise if Iceland were unable to supply the full amount, since that country has entered into contracts with Soviet Russia and the Eastern Zone of Germany for large supplies of sea fish after its fish exports to Great Britain collapsed over the disagreement about the Icelandic fishing zones.

* * * * *

MARKETING PLAN TO CONTROL FISH CATCH AND IMPORTS: A law recently passed in Germany authorizes the Federal Minister for Food and Agriculture to set up annually a supply plan determining the quantities of fish available from domestic deep-sea fishing and the quantities to be imported. The new law (Gesetz ueber den Verkehr mit Fischen und Fisch aren, Fischgesetz--Law on the Marketing of Fish and Fish Products--Document No. 213) also provides for the establishment of an advisory board of representatives from the Federal Government, the Laender concerned, the fishing industry, and the consumers. The advisory board would assist the Minister in implementing the marketing law, states a January 6, 1955, U. S. consular dispatch from Bonn.



Greece

FISHERY PRODUCTS PRODUCTION AND SUPPLY, 1954/55: Greek production of fishery products in 1954/55 (July-June) will total 60,000 metric tons (including salted, dried, and canned fish converted to landed weight). Greek imports of fishery products during the fiscal year are expected to exceed exports by 25,100 metric tons. The total available supply of fishery products during 1954/55 will amount to 85,100 tons, reports a U. S. Embassy dispatch (November 25, 1954) from Athens.

For the year 1953/54 the Greek supply of fishery products was estimated at 77,600 metric tons, consisting of a production of 60,000 metric tons and an excess of imports over exports of 22,600 metric tons.

Annual per-capita consumption of fishery products (landed weight) is expected to increase from 9.4 kilograms (20.7 pounds) for fiscal year 1953/54 to 10.2 kilograms (22.4 pounds) for fiscal year 1954/55.

Preliminary statistics for calendar year 1954 show a production of fishery products (including salted, dried, and canned fish converted to landed weight) of 60,000 metric tons, compared to 55,000 tons in 1953 and the prewar 1935-38 average of 35,000 tons.

Iceland

FISHERIES FUND ACT REVISION: A Fisheries Fund for loans to assist in the promotion and development of the fishing industry in Iceland (Act No. 34) was passed in 1943. Objections developed to Act No. 34, principally on the basis that it did not provide sufficient funds, and on April 12, 1954, two Althing resolutions were passed concerning revision of the Act. As a result, the Minister of Fisheries appointed a committee to present new legislation for consideration in the next session of the Althing, a December 17 U. S. Legation dispatch from Reykjavik points out.

The bill developed by this committee was presented to the Althing on November 1 and completed its first reading on November 5, 1954. Due to the powerful governmental support behind the bill it is expected to be passed in substantially the form as presented. Final action is expected in February or March 1955.

The principal provisions of the bill are as follows:

The purpose of the Fisheries Fund of Iceland is to aid Iceland's fishing industry, particularly the motorboat industry, with favorable capital loans. The source of income for the Fund is export fees on fishing products amounting to about IKr. 7 million (US\$429,000) per annum and the interest received on loans granted by the Fund. The Fund is permitted to borrow capital for its operation and the State Treasury is authorized to guarantee loans of as much as IKr. 50 million (US\$3.1 million) for this purpose, an increase from the IKr. 4 million (US\$245,000) provided under the previous bill.

The Fund shall grant loans only to:

(a) Fishing vessels, including open motorboats; vessels under 200 tons shall have priority.

(b) Processing plants for sea products and other projects which improve conditions for fisheries and utilization of sea products. The loans shall be only against first mortgages and may amount to as much as two-thirds of the cost or assessed price of new fishing vessels and three-fifths of the price of new fish-processing plants and other real estate for the fishing industry. Loans for fishing vessels built locally may amount to as much as three-fourths of the cost or assessed price. The maximum loan from the Fund is IKr. 1,250,000 (US\$766,000) for fishing vessels and IKr. 600,000 (US\$37,000) for real estate; the maximum loan period is 20 years. Interest shall be at 4 percent on loans for vessels and 6 percent on other loans, payable in advance. Interest on defaulted payments is $\frac{3}{4}$ percent for each month overdue. The normal interest rate in Iceland is 7 percent.

The remainder of the bill gives details concerning the internal operations of the Fund and the method of collection of amounts overdue. The Fisheries Fund is to be an independent institution under the supervision of the Minister in charge of Fisheries. The Fisheries Bank of Iceland, Ltd., Reykjavik, is to manage the Fund's administration and operation.

The following is a statement of the estimated operations of the Fund during 1955:

		IKr.	US\$
Estimated loans as of January 1, 1955	-	60,000,000	3,700,000
Loans promised but not granted as of January 1, 1955	-	10,000,000	600,000
Additional loans during 1955:			
Renewal of motorboat fleet	-	17,000,000	1,100,000
Purchase of engines	-	7,000,000	400,000
Fishermen's sheds and processing buildings	-	4,000,000	200,000
Total Additional Loans	-	28,000,000	1,700,000
Grand Total	-	98,000,000	6,000,000
Less installments $\frac{1}{20}$ of IKr. 60,000,000	-	3,000,000	200,000
Net credit extended on December 31, 1955	-	95,000,000	5,800,000

It is estimated that over a period of five years total loans will increase to IKr. 180 million (US\$11.0 million). In addition, the fisheries loan department of the National Bank of Iceland has about IKr. 70 million (US\$4.4 million) out on loan. The capital of the fisheries loan department was originally IKr. 100 million (US\$6.1 million), principally for the purchase of new trawlers. It is proposed that the capital of the fisheries loan department be increased again to that amount and consideration be given to combining the Fisheries Fund and the fisheries loan department of the National Bank of Iceland.

At the end of September 1954 funds totaling IKr. 55 million (US\$3.4 million) were out on loan and another IKr. 8.5 million (US\$520,000) was promised for fishing vessels under construction. Additional applications had been submitted for 12 fishing vessels to be constructed in Iceland and 26 fishing vessels to be built abroad. The total loan requirement for these vessels is estimated at IKr. 25-27 million (US\$1.5-1.7 million). Additional applications under preparation were for 35 vessels, valued at approximately IKr. 25 million (US\$1.5 million). It is estimated that the annual construction of new motorboats will total about 1,000 tons requiring new loans of IKr. 17 million (US\$1.1 million) a year.

Loans for new motors to recondition the existing fleet are estimated to total about IKr. 7 million (US\$400,000) annually, based on the experience of previous years.

The financing of fishermen's sheds is a new field of operation for the Fund. These sheds are needed for the motorboat fleet at its base of operation and are used for storing fishing gear and for baiting the lines on shore. The number of such sheds is inadequate in many places.

Considerable funds are needed for the construction of processing buildings--freezing plants and buildings for processing salted fish and stockfish. The construction of fish-processing plants has not kept pace with the demand. The need for processing plants has increased because the catch has been increasing and, due to the British landing ban on fresh fish on ice, a large percentage of Iceland's fish is now being processed instead of exported as caught.

The total need for new loans is felt to be beyond the capacity of the Fisheries Fund so an agreement has been made between the Fund and the Development Bank of Iceland providing for the Bank, as funds become available, to grant loans for the construction and improvement of larger fish-processing plants and freezing plants. Smaller construction will be financed by the Fisheries Fund.

The Icelandic Government has given a high priority to the expansion of activities of the Fisheries Fund in order to give maximum support to the fishing industry which is basic to the economy of Iceland.



India

STATUS OF FISHERIES DEVELOPMENT: By means of several Government-sponsored projects, the Government of India is attempting to enlarge the surprisingly small contribution which fish is making to the national diet. Consumption of fish in India has been roughly estimated at 1 million metric tons, which is the equivalent of only about 3 calories per capita per day, despite the fact that India is almost entirely surrounded by water. The value of the total catch of fresh-water fish in 1950/51 has been estimated to be about Rs. 160 million (US\$33 million) and of sea fish Rs. 120 million (US\$25 million). In addition, Rs. 66 million (US\$14 million) has been nationally estimated as the value of fish caught by persons other than fisher-

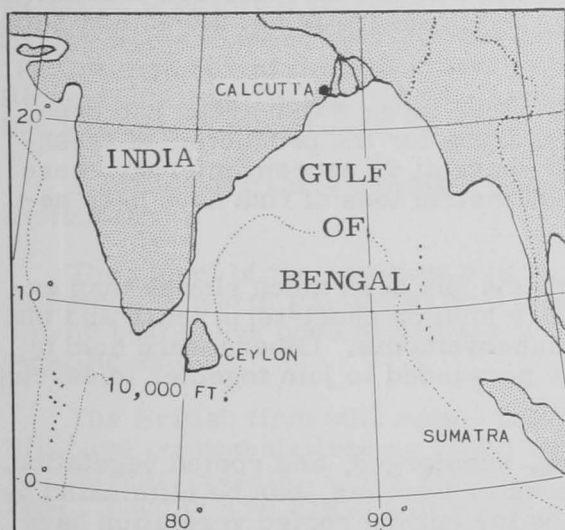
men. Annual imports, mostly from Pakistan, are worth about Rs. 16 million (US\$3 million). These values are extremely small in relation to the estimated value of India's agricultural production, namely, Rs. 49 billion (US\$10 billion) in 1950/51. They are also small in comparison with meat production valued at Rs. 800 million (US\$167 million) despite the fact that many Indians who have scruples against eating meat will eat fish, a January 10, 1955, U. S. Embassy dispatch from New Delhi points out.

According to the Five Year Plan Progress Report for 1953/54, Rs. 51.4 million (US\$10.7 million) were provided for fishery development by the states and by the Center, but only about 25 percent had been spent in the first three years of the Plan. For developing inland fisheries, a vast number of fry and fingerlings have been stocked in the waters of Madras, Bombay, Bihar, and Orissa. For developing marine fishing, boats are being equipped with engines in Bombay, Madras, and Travancore-Cochin. The Deep Sea Fishing Station at Bombay is operating two cutters and two boats for charting 12,000 square miles within the 40-fathom line of the Bombay and Saurashtra coasts. These vessels landed 410 tons of fish in 1953/54, which is about double the quantity landed in 1951/52. Exploratory fishing is also being carried out by the West Bengal Government with two cutters which landed 363 tons in 1953/54 as compared with less than 200 tons in 1950/51. A Japanese trawler has undertaken commercial fishing operations on the West Coast. Services of Japanese and Norwegian experts have been obtained under the U. S. Technical Aid Program and the Norwegian Aid Program.

* * * * *

FISHERIES DEVELOPMENTS IN WEST BENGAL: Next to rice, fish is the staple food of the Bengli of West Bengal, India. With the loss of extensive inland fishing grounds in East Pakistan upon Partition, the supply of fish to the Calcutta market dropped considerably. It is estimated that of the total supply of 96 metric

tons of fresh fish received daily in Calcutta, 61 tons formerly came from the fisheries of East Pakistan. At the same time Calcutta's food problem was complicated by the influx of a large number of refugees who streamed into West Bengal from East Pakistan. The Government of West Bengal is presently sponsoring a number of research schemes, all designed to increase the yield of fish both from fresh water and salt water, states a U. S. consular dispatch from Calcutta.



Deep-Sea Fishing: Various studies have been made of the waters of the Bay of Bengal. In 1950 two Danish trawlers, the *Skaneklit* and the *Christian Schroder* were purchased and came, under their own power, to Calcutta. Renamed the *Sazarika* and *Baruna*, respectively, they left on their first

exploratory trips on December 26, 1950. Up to December 1953 these vessels made 50 exploratory trips and brought 2.1 million pounds of fish to the Calcutta market. They located 12 potential fishing grounds, found that the period from November to March is the best fishing season, located plentiful supplies of six different kinds of fish--pomfret, mackerel, shrimp or prawn, chanda, bholla and phasa--and found that the haddock trawl net gives the best results in quality and quantity of catch. In addition, the Danish experts who accompanied the trawlers to India trained 16 Indian crewmen, 2 engineer mates, and 2 pilots, and also trained 12 local fishermen in the technique of making different type nets for deep-water fishing.

Encouraged by the results of their research the West Bengal Government has ordered three additional bull trawlers under the technical assistance program.

Marketing of the Catch: From the start of the program until 1952 many difficulties were encountered in marketing the catch brought to Calcutta by the trawlers. In March 1952 an agent was appointed for marketing all catches. He is responsible for lifting all catches within a stipulated time, transporting and storing them at his own cost, and for selling them in Calcutta and other markets, both wholesale and retail. Present prices at which the agent buys the catch are Rs. 52½ per maund (13.5 U.S. cents per pound) for quality fish; Rs. 10 to Rs. 24½ (2.6-6.2 U. S. cents per pound) for small fish, according to class; and Rs. 6½ (1.6 U.S. cents) for sharks, rays, and other coarse fish.

Shark-Liver Oil Production: In 1950 there was also started a program for the production of shark-liver oil, fish meal, and processed fish, and the utilization of fish byproducts. Since that time 20,667 pounds of shark-liver oil, 121,070 pounds of fish meal, and 15,111 pounds of processed fish have been produced. Fresh fish netted while fishing for sharks in the amount of 126,000 pounds has also been sold.

Shark livers are used in the production of vitamins which are usually sold to hospitals while the meat of the shark is used in the production of fish meal.

Fish Hatcheries: Fish hatcheries have been established in various rural areas of the State. Since 1950 such hatcheries have raised and sold 38.4 million fry and fingerlings to private stockers and pisciculturists. It is expected that more than 823,000 pounds of fish of marketable size will be produced from these fry and fingerlings.

Research regarding the mortality of spawn, fry, and fingerlings in transit has been productive. From a mortality rate during transit of from 60-70 percent, the rate has been reduced to as low as 0.5 percent in some cases. Average mortality for fish shipped in special containers under oxygen pressure is not more than 1 or 2 percent.

Beel (Lake) Development: Many beels and other large water areas had been neglected for many decades. To renovate such areas for the production of fresh-water fish, loans, repayable over a number of years at 6¼ percent interest, were provided to their owners. Approximately 2,000 metric tons of fish have been secured from the beels since 1950.

The progress of the beel improvement scheme has been much slower than expected. It was found that many of the beels were held on short-term lease and the lessees had no authority to carry out capital improvements. Others were held by antagonistic cosharer owners who could not be persuaded to join together to develop their beels.

Steps have been taken to eradicate floating, submerged, and rooted vegetation. It has been found that floating vegetation, like water hyacinth, can be eliminated by the spraying of chemicals. Mechanical devices for cutting rooted vegetation have also been evolved. Research has also been undertaken to determine the optimum chemical and biological conditions for maximum production of fresh-water fish. As a result it has been possible to advise growers regarding food deficiencies in their beels and to suggest proper methods of fertilization in order to increase production.

Tank Fisheries: The Indian landscape is dotted with tanks which resemble the small ponds now found on so many farms in the United States. Two types of loans have been made available to owners of tanks.

To stock tanks which are otherwise in good condition, a short-term loan is granted. A loan of Rs. 210 per acre, at $6\frac{1}{4}$ -percent interest, repayable in two years, can be granted provided the owner carries out his restocking program under the technical supervision of officers of the Department of Fisheries. Since 1950 tanks aggregating 8,665 acres have been stocked. The total amount of loans advanced is Rs. 1,157,280 (US\$241,000).

To renovate derelict tanks, longer term loans can be advanced. Such loans are limited to Rs. 525 (US\$109) per water acre, at $6\frac{1}{4}$ -percent interest, repayment to be made in from 5 to 8 years. Since 1950, under this scheme, 1,902 acres have been improved. Loans advanced amount to Rs. 585,398 (US\$122,000).

Government Aid to Fishermen: Since the majority of fishermen were too poor to buy boats or yarn for nets, the Government supplied them with boats and yarn at 50 percent of the cost price. Since 1950, 344 boats and 297.5 bales of yarn have been distributed in addition to 5,720 bales of yarn supplied at cost price. The Government is now considering reducing this subsidy from 50 percent to 25 percent.

Foreign Assistance: The Food and Agricultural Organization of the United Nations (FAO) assigned a Fishing Officer and a Fishing Engineer to West Bengal for one year, the former to advise on the development of inland fresh-water fisheries and the eradication of water hyacinth and the latter to advise on the development of estuarine areas. In addition, FAO fellowship holders have been brought to West Bengal for training.



Japan

BRITISH NAVY TO PROTECT JAPANESE VESSELS FISHING UNDER BRITISH FLAG IN WESTERN PACIFIC: The British Royal Navy is to protect five Japanese fishing fleets manned by Japanese crews during operations off the Siberian coast in 1955, a member of the Japanese Lower House, told Reuter, a British news service. He said this was "explicitly provided for" in a contract with a British firm whereby the Japanese fishing fleets will sail under the British flag.

A Japanese fishing company signed the contract on November 25, 1954, with the British firm.

The object of the contract was to get around a Japanese Government restriction on fishing in North Pacific waters off the Siberian coast, where scores of Japanese fishing boats have been seized since the war for allegedly trespassing in Soviet waters, he said.

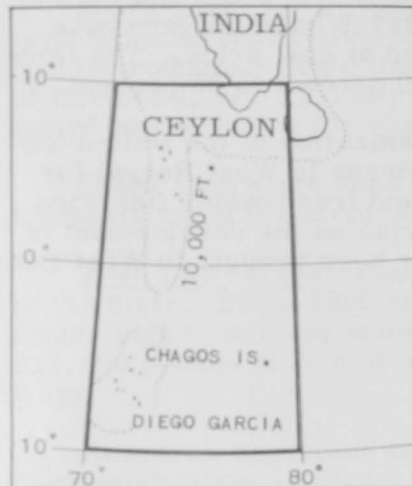
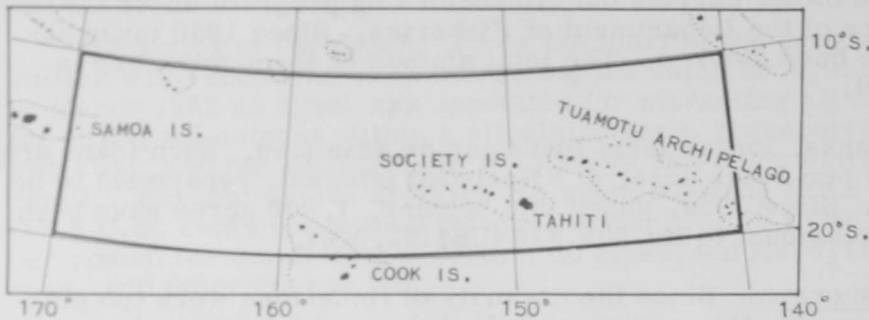
The British firm will supply five motherships, all more than 8,000 tons, and will have representatives on board each one. The Japanese company will provide 150 catcher vessels, 4,000 crewmen, and all equipment, reports the December 10, 1954, issue of The Fishing News, a British fishery paper.

The Japanese House Member said the Japanese firm hoped to net a catch worth approximately 4,000 million yen (US\$11 million), about equal to Japan's entire annual fishing catch in the North Pacific at present.

The area to be fished includes the rich salmon and crab fishing grounds lost by Japan at the end of World War II.

Note: See Commercial Fisheries Review, October 1954, p. 50.

NEW FISHING GROUNDS TO BE EXPLORED: A four-year survey plan to develop new fishing grounds has been drafted by the Fisheries Board of the Japanese



Dark lines indicate areas for Japanese survey to develop new fishing grounds.

made dangerous by thermonuclear tests.

The surveys planned for the first year will center on the Society Islands (Tahiti) and will cover the area between 10° and 20° S. latitude and 140° and 170° W. longitude. It is also planned to conduct a survey in the Indian Ocean south of India between 10° N. and 10° S. latitude and between 70° and 80° E. longitude, according to the December 1954 Fisheries Newsletter, an Australian fishery magazine.

NORTH PACIFIC SALMON AND CRAB EXPEDITIONS, 1955: Plans for Japanese salmon, trout, and crab fishing in North Pacific waters for the 1955 season were announced recently by the Japanese Fisheries Agency, according to a January 10 dispatch from the U. S. Embassy in Tokyo. The salmon-trout fishing fleets in Aleutian waters will be markedly increased above the 1954 expeditions and special exploratory fleets will be sent into the Okhotsk Sea.

The salmon-trout fleets will consist of 11 motherships, 284 fishing boats, and 50 survey boats. These fleets compare with 7 motherships and 160 fishing boats employed in 1954. The Japanese Fisheries Agency also states that the fleets will be permitted to fish 20 miles off the Kamchatka coast, where in 1954 a 30-mile limit was imposed. The increases in both fleets and fishing area are anticipated to produce a catch of 40 million fish, or about double the 1954 catch. All motherships in the 1955 fleets are to be equipped with canning facilities.

In addition to these fleets, four expeditions, characterized as "exploratory," are authorized to enter the Sea of Okhotsk for the first time since World War II. These fleets will consist of 2 motherships, 50 fishing vessels, and 8 survey vessels for exploratory salmon and trout fishing; and 2 motherships for exploratory crab expeditions.

PEARL-SHELL FISHING EXPEDITION RETURNS FROM ARAFURA SEA: The 25 vessels of the second Japanese postwar Arafura Sea pearl-shell fishing expedition returned to Kushimoto, Wakayama Prefecture, on October 29, 1954, with 955 metric tons of mother-of-pearl, after a six months' absence. The catch, which is valued at ¥400 million (US\$1.1 million), is approximately equal to the 1953 catch.

The Arafura Sea is Japan's only source of the high-grade mother-of-pearl shell at present, reports the November 10 U. S. consular dispatch from Kobe.

According to trade sources, the bulk of this material is destined for the United States. Of the 1953 yield only 10 percent of the total, the poorest in quality, was retained for use by the domestic button manufacturers, while the rest was sent to the United States in raw form. Furthermore, most of the mother-of-pearl buttons produced were exported to the United States.

The activities of this fleet has led to a controversy between Australia and Japan over the rights of Japanese fishermen in Australian continental-shelf waters. According to the press, the Japanese cabinet has just allocated ¥80 million (US\$222, 000) to meet the costs of presenting Japan's position before the International Court of Justice at The Hague. Much interest is said to be shown in this case for any decision taken may very well set a precedent for other disputes involving territorial rights to the continental shelf.

* * * * *

AGAR-AGAR EXPORT TRADE DECLINES: The Japanese export trade in agar-agar has shown a marked decline in late 1954 due to a shortage in supply and to a price rise not matched in other producing countries. Three-quarters of all Japanese exports of this material are shipped from the port of Kobe.

This product finds a worldwide market, reports a December 16 U. S. consular dispatch from Kobe. Japan's principal customers in recent years have been Malaya, Singapore, United States, United Kingdom, and France. In 1953 export sales totaled about US\$3 million. Before World War II Japan was the principal supplier to world markets. Since the war Japan has faced growing competition as many countries have developed their own production of this material, often, ironically enough, with the assistance of Japanese technical experts.

Japan is not self-sufficient in the sea weed used in the making of agar-agar, but has always relied on foreign sources to a certain extent. With the development of national agar-agar production by many countries, the sources of sea weed have been increasingly limited, and Japan can no longer depend upon foreign sea weed to make up deficits in domestic supply.

Due to unusual ocean currents in 1954, sea weed was scarce off the Japanese islands. Because of this scarcity, and the resulting higher price, the Japanese traders find themselves with less to sell and at prices substantially above the world level of US\$1.40 per pound. The current export price of the Japanese product should be, in view of production costs, about US\$1.80 per pound. In order to make possible the exportation of this product, the Government some weeks ago permitted the traders to link profitable imports of sugar to export sales of agar-agar. Virtually all recent exports of this product have been affected through the workings of this agar-agar sugar link arrangement.

JAPANESE GOVERNMENT



Mexico

EXPORT DUTIES ON SHRIMP AND FILLETS: A decree, published in the Diario Oficial of August 2, 1954, by the Mexican Government, ordered that frozen shrimp exports be taxed at 30 centavos per 100 kilos (1.1 U. S. cent per pound) plus 5 percent of the value, states a November 3 U. S. consular dispatch from Merida.

On October 14, 1954, the Diario Oficial published decrees, effective that date, which established a 5-percent ad-valorem export duty on fish fillets, and set an official value of 3.20 pesos (11.6 U. S. cents per pound) on fillets.



Netherlands

NEW-STYLE TRAWLER: The construction of a new-style large trawler was commenced in a Netherlands shipyard in November 1954. The trawler will have a length of 141 feet (187 feet between the sounding lines), a width of 25½ feet, a draught of 13 feet, and a bobbed hull to keep the stem higher above the water in stormy weather so as to be less liable to ship heavy seas. The three-legged mast will be a considerable improvement. The crew's quarters, consisting of two cabins for six men, will be located aft.

Fishing can only be done over starboard on modern cutters. The cabins can be reached both via starboard and port, while the engineroom can also be entered from two sides. The vessel will be equipped with a 800 hp. engine, with a 2 to 1 reduction, providing for the use of a large propeller with increased propulsion power, reports the December 1954 Holland Fish Trade, a Netherlands fishery magazine.



Norway

WINTER HERRING FISHERIES HAMPERED BY BAD WEATHER: The Norwegian 1955 daily winter herring catch in January rarely totaled more than 1,000 metric tons as compared with daily landings of about 3,500 metric tons during January 1954. During mid-January 1955 the annual winter herring fisheries off Norway's west coast were frequently interrupted by bad weather. Day after day strong winds made it virtually impossible for the fleet of about 2,200 fishing vessels to leave port. Meanwhile, some 25,000 fishermen mended nets or walked the streets of Aalesund, impatiently waiting for their chance.

The fishing vessels were not idle all the time. At every let up they set off in search of the elusive herring. Drift netters fared best, it seems. For the 450-odd purse seiners, however, the catch was disappointing. The herring were so deep that they were beyond reach. Often, too, valuable gear was lost or ripped in heavy seas, reports the Norwegian Information Service in a January 27 bulletin.

When the shoals eventually break through the cold-water barrier to approach the coast, Norway's newest floating herring-oil factory, the S. S. Haeringur, will be on hand to do business. Recently renovated, the former Icelandic vessel has a daily production capacity of over 800 tons and a storage capacity of 2,000 tons.

* * * * *

FISHERIES PRODUCTION, 1954: Norwegian fisheries in 1954 established an all-time record in both volume and value as total production reached 4.1 billion pounds, valued at 545.6 million kroner (US\$76.3 million) ex-vessel. This compared with the 1953 production of 3.1 billion pounds, valued at 486 million kroner (US\$68.0 million), and the 1952 totals of 3.7 billion pounds and 523.1 million kroner (US\$73.2 million). However, there were wide fluctuations within the various fisheries in 1954--the important winter herring catch far exceeded any previous year, while the catch of most other fisheries (particularly cod and brisling sardine) fell far below 1953.

The Norwegian 1954 winter herring catch totaled 2.4 billion pounds, valued at 201.2 million kroner (US\$28.1 million), 23 percent above the previous record of 2.0 billion pounds in 1951. The combined catch of herring and brisling sardines in 1954 totaled 3.2 billion pounds, valued at 276.2 million kroner (US\$38.6 million)--about 78 percent of the volume of the entire catch. The total production of cod and byproducts of cod in 1954 amounted to 402.3 million pounds, valued at 126.9 million kroner (US\$17.7 billion), as compared with 472.3 million pounds and 150 million kroner (US\$21.0 million) in 1953 which was a below-average year.

The value of Norwegian exports of fishery products in 1954 exceeded 900 million kroner (US\$126 million), an increase of 200 million kroner (US\$28 million) as compared with 1953. Exports of canned fishery products (mostly herring and brisling sardines) in 1954 totaled a little over 70.6 million pounds, valued at about 150 million kroner (US\$21.0 million), as compared with 58.7 million pounds, valued at 119.6 million kroner (US\$16.7 million) in 1953, and 76.1 million pounds, valued at 145.6 million kroner (US\$20.4 million) in 1951 (the record postwar year).

Norwegian whaling was especially successful in 1954 when the pelagic expeditions and shore station in the Antarctic produced 1.0 million barrels of whale and sperm oil worth at least 233 million kroner (US\$32.6 million) as compared with only .8 million barrels in 1953. All the 1954 whale oil was sold, most of it in foreign trade, reports a January 6, 1955, U. S. Embassy dispatch from Oslo.

A repetition of herring catches as rich as last year's cannot be counted on, according to reliable reports.



Peru

FISHERIES FACILITIES BY PORTS: Chimbote: This port which lies 250 miles north of Lima has 4 canneries (two of which have reduction plants and refrigerated storage) and also 2 reduction plants not run by the canneries. Two of the 4 canneries were not operating in mid-1954, according to a report of a trip made from Lima to the Ecuadorian border by an employee of the Foreign Operations Administration Fisheries Mission in Peru.

One of the three canneries operating packs about 600 cases (48 No. $\frac{1}{2}$ flat cans) of bonito daily under wholesalers' labels. Fish is purchased from fishing boats but it does not have a reduction plant or refrigerated storage. The second packs an average of 500 cases daily, but only one of its two lines were in operation. This cannery also has a reduction plant and refrigerated storage. The third cannery owns its fishing boats and has a reduction plant and refrigerated storage, but it was not operating in mid-1954. A fourth plant also was not operating.

May to September is the off-season for bonito. During this period canneries were paying up to 48 soles (US\$2.50) per dozen bonito of about 7.7 pounds each.

One of the two reduction plants has a flame drier and a capacity of 150 tons of fish daily. The plant is operating considerably below capacity and besides processing cannery waste buys sardines and anchovies for reduction. The second of the two reduction plants has the latest German machinery and a steam drier. Its capacity is 50 to 60 metric tons of fish daily. This plant buys sardines and anchovies for reduction and also processes cannery waste because it does not own enough boats to supply the plant.

Pimentel: No fish production at this port and a cannery nearby has been closed for most of the past five years.

Paita: This port has two tuna canneries (both closed) and two freezers. One of the freezing and packing plants has a storage capacity of 1,000 metric tons and a freezing capacity of 60 tons daily. Frozen swordfish in one-pound packages was being packed by this plant, but since swordfish was scarce in mid-1954, the plant distributed fresh fish for local consumption.

The other freezing plant is located near Tierra Colorada (a small bay about four miles from Paita). This freezer has a storage capacity of 1,000 metric tons and can freeze 60 tons of fish daily. Four to five tuna clippers land their catch at this plant for freezing. A company freezership transports the frozen tuna (mostly yellowfin) to the United States.

Sechura Area: There are a number of fishing villages located along about 20 miles of desert coast. Fresh water is supplied in drums. Only 18- to 24-foot sailboats operate out of these villages. Hand lines or trolling is the principal method of fishing, except for a few beach seines used for sharks, rays, and turtles. The fish are sun-dried and sometimes lightly salted. Transportation to market is the chief problem along with the lack of fresh water. Since there are no roads, trucks drive across the desert. Chief products are dried shark, guitarfish, other rays, grouper, corbina, cojinova, king mackerel, mullet, and barracuda.

Costante: About 200 fishermen operate from this port.

Parachique: About 300 fishermen operate from this port.

Matacaballo: About 325 fishermen and 70 fishing boats operate from this port. Also, there are two small boat-building yards located here.

Mancora: This is the chief fishing port for yellowfin tuna, skipjack, and swordfish. It is an open roadstead without docks or landing facilities. Although several companies are based here, only one company has any type of shore installations, including a freezer. The frozen storage capacity of the freezer is between 600 and 1,000 metric tons. There are generally three or four freezerships operating off-shore of this port, but they follow the fishing boats.

Caleta Cruz: This is the present center of the shrimp-fishing fleet. The number of boats operating varies from 25 to 35. Most of these vessels (30 to 40 feet in length) are equipped with 20-foot beam trawls, but a few have 35- to 40-foot otter trawls. Shrimp is fished in 4 to 5 fathoms of water 24 hours a day, and the average catch is 125 pounds of jumbo shrimp (15 count, heads off). The shrimp are iced and taken to Mancora for packaging and freezing in 5-pound packages.

* * * * *

FISHERY PRODUCTS SUPPLY AND CONSUMPTION, 1953-55: Total production of fishery products in Peru during 1953 amounted to 60,000 metric tons, while imports totaled 400 tons and exports 30,000 tons. The available supply of fishery products in that year was 30,400 tons, all of which was utilized for food, according to a November 17, 1954, U. S. Embassy dispatch from Lima.

The 1954 Peruvian fishery products production was estimated at 64,500 metric tons, imports at 500 tons, and exports at 32,250 tons. The available supply of 32,750 tons was expected to be consumed as food.

For 1955 the Peruvian fishery products supply and consumption are estimated as follows: production 68,000 metric tons, imports 600 tons, exports 34,000 tons, available supply (for food) 34,600 tons.

Portugal

FISHERY PRODUCTS SUPPLY AND DISPOSITION: Fresh and Canned Fish, 1953 and 1954: Total Portuguese production of fresh and canned fish in 1953 amounted to 217,646 metric tons; supply on hand on January 1 totaled 400 tons; there were no imports of fresh and canned fish; the total supply available amounted to 218,046 tons in 1953. Of this, 172,646 tons were consumed as fresh fish, 44,000 tons canned (almost 90 percent of this is exported), and 1,000 tons exported. Portuguese stocks of fresh and canned fish on hand at the end of 1953 totaled 400 tons.

For 1954, Portuguese production of fresh and canned fish was estimated at 240,000 metric tons, and there were no imports. It was estimated that 175,000 tons were consumed fresh, 64,000 tons canned, while exports amounted to 1,000 tons. Stocks on hand at the beginning and end of the year were the same--400 tons.

Salted Cod, 1953/54 and 1954/55: Portuguese production of salted cod in 1953/54 (July-June) totaled 45,119 metric tons (product weight), imports amounted to 19,419 tons, and there were 3,000 tons on hand at the beginning of the period--the total available supply was 67,528 tons. A total of 61,528 tons of salted cod was consumed in Portugal in the period, and the remainder--6,000 tons--was on hand at the end of the period.

In 1954/55 (July-June), Portuguese production of salted cod was estimated at 48,000 metric tons, imports at 15,000 tons, which added to 6,000 tons on hand at the beginning of the period, makes a total supply of 69,000 tons available. Of this, 63,000 tons were consumed in Portugal, and the balance--6,000 tons--was on hand at the end of the period.



Unloading frozen spiny lobster tails from refrigerated truck in Lisbon for shipment to United States.



Spain

REVIEW OF THE FISHERIES, 1953: A general scarcity of sardines and cod, high operating costs, antiquated fishing vessels, and shortages in certain lines of ship fittings continued to hamper the Spanish fishing industry in 1953. Nevertheless, the 1953 total catch of 632,998 metric tons was nearly 4 percent greater than the 610,229 tons registered in 1952 and almost 15 percent above the 10-year average of 551,344 tons for the years 1943-52.

Government loans to the fishing industry through the Caja Central de Credito Maritimo dropped by almost 47 percent from 36.7 million pesetas (US\$16.8 million) in 1952 to 19.6 million pesetas (US\$8.9 million) in 1953.

Other than for a promised reduction in price for certain grades of coal for fishing vessels, there was little prospect of immediate improvement in the distressed condition of the industry. Fuel oil and tinplate remained under strict control and fishing gear was under a system of voluntary rationing at the end of the year, states a December 20 U. S. Embassy dispatch from Madrid.

VIGO FISH-CANNING TRENDS, OCTOBER 1954: Fish-canning plants in the Vigo area purchased during October 3.8 million pounds of fish for processing (mainly albacore tuna, alcrique, and jurel). Sardines, while available in small quantities, sold at prices almost prohibitive for fish canning. October purchases compare to 6.9 million pounds in September and 6.2 million pounds in October 1953. The decrease in fish purchases for canning was due to the end of the albacore tuna season. The other two varieties (jurel and alcrique) are packed only for domestic consumption, and the industry is reluctant to use the scant canning supplies for packing lower-priced species.

Now that plans to relieve the shortages of tinplate and other basic canning materials seem to be on the way and the Spanish Government has revised exchange rates for exports which, from the packers' viewpoint, are still insufficiently remunerative to permit competition in foreign markets, the industry is looking ahead with mild optimism. They believe that if desirable varieties become available in sufficient quantities, production can be stepped up with a consequent reduction in the market price of the finished product.



Tunisia

FISHERY PRODUCTS EXPORTS TO UNITED STATES, 1954: Tunisian exports of fishery products and byproducts to the United States in 1954 totaled 289,000 lbs.,



A Tunisian sponge-fishing boat at Djerba.

valued at US\$120,774, as compared with 1953 exports of 196,000 lbs, valued at US\$94,273 (see table). Cuttlefish bone was the leading item in value, followed by



Fig. 2 - Sorting sponges according to size at Sfax, Tunisia.



Fig. 3 - Sponges packed for shipment at Sfax, Tunisia.

snails and sponges, according to a U. S. consular dispatch (January 3, 1954) from Tunis.

Tunisian Fishery Products Exports to United States, 1953-54				
Item	1954		1953	
	Quantity	Value	Quantity	Value
	Lbs.	US\$	Lbs.	US\$
Sponges	4,000	24,936	5,000	36,333
Cuttlefish bone	110,000	68,861	82,000	28,415
Snails	175,000	26,977	104,000	27,275
Oetopus, dried	-	-	5,000	2,250
Total	289,000	120,774	196,000	94,273



United Kingdom

PROBLEMS OF FISHING TRAWLERS: The British people are eating less fish, according to the London press (*Financial Times*, November 23, 1954). The latest figure (for 1953) shows that an average of 18.7 pounds per person was consumed, compared with 28.7 pounds for 1948, the peak year of the postwar boom in fish eating. In the summer of 1953 the trawler owners laid up 20 percent of their distant-water fleet, but even so 18,000 tons of edible fish remained unsold throughout the summer. Between April and July 1954 a quarter of the fleet was laid up. The fish-mongers, however, maintain that the tide in their fortunes has turned and that consumption in 1954 was not less than 1953, and may have been slightly higher--perhaps the first fruits of the £80,000 (US\$224,000) a year advertising campaign carried out by the White Fish Authority, and the £120,000 (US\$336,000) campaign of the distant-water section of the British Trawlers Federation.

But this declining consumption is only one of the problems the trawlermen are facing. Increasing costs are their biggest difficulty. A catch on the average has to

be one-quarter larger than prewar for the owner merely to break even, and almost one-third larger for him to obtain a comparable rate of profit. Replacement costs have doubled over the last five years, and have increased nearly five times over the prewar figure: the distant-water trawlers at present under construction will



Distant-water trawlers operate on grounds stretching from the Davis Straits and Newfoundland in the west, Bear Island in the north, and Nova Sembla in the east. Middle-water trawlers fish the west coasts of Scotland and Ireland, the Faroes, and the Norwegian coast. Near-water trawlers operate off the shores of the British Isles.

cost nearly £200,000 (US\$560,000) each to put to sea and between £250 and £300 (US\$700-840) a day to operate. Fuel costs have quadrupled since 1938 and now account for approximately 25 percent of gross earnings compared with 20 percent in 1938.

Labor shortages also constitute a problem. Trawler captains can earn £3,000 (US\$8,400) a year and the crew members about £20 (US\$56) a week, but there is a decline in the newcomers entering the trade. As yet this is causing only occasional delays at certain ports, notably along the northeast coast and at Grimsby, but the problem would seem to be merely postponed. For one thing trawling is an extremely hazardous occupation--indeed, it has the highest casualty rate of any trade in the United Kingdom--and, moreover, it is seasonal. The men need to have an alternative occupation during the summer laying-up months. The main difficulty at present

is finding crews for the older vessels, which cannot offer the living conditions of their modern sisterships and--more important--because they do not possess the best equipment they will provide lower earnings to be shared among the crew.

It is this question of aging vessels that is the core of the trawler problems. The distant fleet is relatively modern and well equipped--more than one-third of the fleet has been built since World War II, when many of the trawlers were requisitioned by the Navy and lost in action and the owners compensated.

On the other hand only about 10 percent of the middle- and near-water trawlers has been built since 1945. The fish-eating boom in the immediate postwar years was satisfied in a large part from the middle and near waters. The five-year relief from fishing in the waters affected by the war permitted the numbers of fish to increase enormously. In these conditions fishing was never easier. There was no need to rebuild, and the old ships were adequate.

With 18 nations operating, however, the North Sea quickly became overfished; the trawlers could not get sufficient fish to fill their capacity. As the trips necessarily became longer, costs rose and the quality of the fish fell--a reason for the declining consumption, since there has always been a ready market for good-quality fish. Thus the owners could not build new and better-equipped vessels.

The onus of supplying the already declining fish palates of the public fell on the distant-water fleet, who at present are catching nearly half the fish eaten in the country. The costs of the distant-water trawler, however, are more than twice those of a North Sea trawler. An average voyage can range in length from 1,700 miles (Iceland) to 2,800 miles (Spitzbergen), taking 20-28 days, two-thirds of which are usually spent reaching and returning from the fishing grounds. Fish, moreover, quickly deteriorates and as yet deep freezing is in its infancy. The installa-

tion of such equipment reduces holding capacity and increases costs further. The problem is only partly solved by increasing the speed of the vessels--now at 12-13 knots, compared with the prewar speed of 9-12 knots.

For the present the trawler owners have reverted to the prewar practice of shelving the fish (placing it in layers between ice on boards of wood or aluminium alloy) instead of the immediate postwar usage of merely storing in holds with consequent diminution of quality. The main solution lies in freezing the first catches at least.

Nevertheless the number of new near- and middle-water trawlers under construction or on order--50 in all--far exceeds the figures for any year since the immediate postwar period when the fleet was increased by the conversion of many naval ships, and before that since 1929-30. The new ships are expected to cost nearly £5 million (US\$14 million) while the estimate for an additional 15 distant-water vessels is in the neighborhood of £3 million (US\$8.4 million). This increase in construction is largely the result of the power given to the White Fish Authority in August 1953 to make grants as well as loans towards the cost of vessels and engines. In many cases applicants have only to provide 15 percent of the cost of a vessel from their own resources.

In the long run the significant factor in the prosperity of the trawling industry is the public taste for fish. Since the abolition of price controls, quality has been the determining factor in the market for fish. The consumer, however, is only slowly beginning to appreciate frozen fish, despite its lower price. On the other hand one of the results of the declining consumption is the country's diminishing dependence on foreign landings--they dropped from 11 percent of total landings in 1952 to 8 percent in 1953, which was the estimate for 1954, also.

In reply to charges of unduly high prices, the trawler owners point out that, although near- and middle-water fish is subsidized, deep-water fish is not, and it is competing with subsidized foods. Moreover they maintain that a penny (1 U. S. cent) reduction per pound would cost £4.5 million (US\$12.6 million), which is more than the total net profits of the trawler owners and the fish wholesalers in the whole country.

* * * * *

FAMILY EXPENDITURES FOR FISHERY PRODUCTS, 1951/52: British expenditures for fishery products in the period from the fourth quarter of 1951 to the fourth quarter of 1952 averaged 12.22 pence (14.3 U. S. cents) per head per week as compared with 60.14 pence (70.4 U. S. cents) for rationed and all other meat and bacon. Adult households consumed more than three times as much fish per head as those with four or more children, while the difference for prepared fish was less, reports The Fishing News (December 10, 1954), a British fishery periodical.

"This may be partly a reflection of children's tastes," says the annual report of the National Food Survey Committee, Domestic Food Consumption and Expenditure, 1952.

The survey, previously confined to urban working class households and special samples, was extended in 1950 to provide a national sample of household budgets, and in 1952 it was possible to obtain a more representative sample of about 3,000 households per quarter.

Expenditure on most foods increased during 1952, mainly because of rising prices, but expenditure on fish tended to fall, no doubt because of improved meat supplies.

Consumption of fresh, processed, and prepared fish in 1952 averaged 7.52 ounces per head per week, and there was 6 percent less fish consumed in the fourth quarter of 1952 compared with the same quarter in 1951. Consumption showed a seasonal decline from 8.1 ounces at the beginning of the year to under 7 ounces in the third quarter, recovering to 7.6 ounces at the end. This was, however, still half an ounce lower than in the last quarter of the previous year, which suggests a downward tendency. The drop was chiefly in white fish of the cheaper types, such as cod.

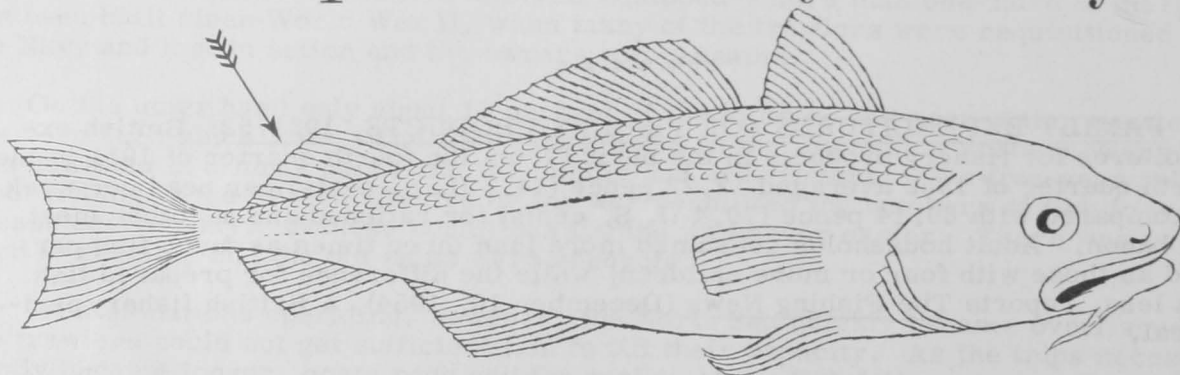
Prices remained fairly steady for this type of fish, so that the reason for the drop was probably the increased availability of meat.

Fat fish--mainly herring--showed a seasonal fall in the spring and summer, but consumption at the end of the year was slightly higher than at the beginning. "It might have been expected that the improved meat supplies would have had more effect on fish consumption, but the impact was lessened by the reduction in supplies of cheese and the seasonal decline in eggs."

An analysis of household expenditure on individual foods gives a weekly expenditure on fish of an adult couple as 36.8d. (43.1 U.S. cents), and of each child 0.5d. (0.6 U.S. cents). The increase in expenditure for fish was only 1 percent "possibly because children have a greater preference for other protein foods," the report adds.

TRAWLER OWNERS EXPAND COD ADVERTISING PROGRAM: The expansion of an advertising program by the British trawler owners associated with the British

The Cheapest Food Money Can Buy!



What are the facts about fish? This favourite food is more popular than ever. Cod caught in Distant Waters has risen less in price than any other staple food since the war -- and it's the cheapest food money can buy, even though it's non-subsidised! Most of our staple foods are subsidised -- meat, butter, milk, eggs, vegetables and cereals. Last year these subsidies cost the Government (you, the taxpayer and consumer) £314,000,000. Fish is not subsidised! Yet a fillet of cod, containing weight for weight, just as much body-building protein, costs less than half the price of fillet steak. Despite increases in the cost of every single item in fishing, and with no help from subsidies, the British Distant Water Fleet has kept the price of fish down to very near its war-end price -- a remarkable achievement! One reason why the present price of fish is so low is that British trawling is a free, competitive industry. Anyone can own a boat. Anyone can buy and sell fish. Trawler captains and their mates have a real incentive to seek the best fishing grounds and land top-quality fish. Both captain and crew share the profits with their companies. Although trawling is a hard and dangerous job, it is one where enterprise is actively encouraged, and skill and daring are quickly rewarded. Let's see exactly what you're paying for when you buy a fresh cod fillet at your local fishmonger. A best quality cod will fetch on average 4d. a lb. when it's sold at the dockside auction. Then this is what happens:--

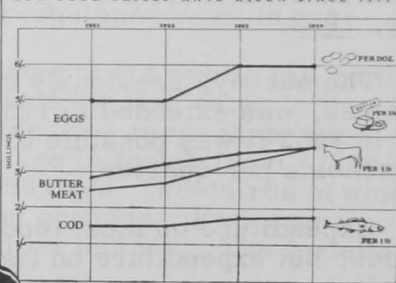
1. More than half the fish -- head, tail, fins and backbone -- is cut away in filleting. This loss, plus the cost of labour to do the job, means that the wholesaler buys his cod fillets for 10d. a lb.

2. The dock wholesaler has to buy boxes and ice, employ packers and quickly transport the fish to Billingsgate or your local fishmonger.

3. The dock wholesaler and your fishmonger add a reasonable profit in order to earn a living. Result -- best cod fillet at 1/6d. to 1/9d. a lb. Naturally, in the worst winter months when fishing is extremely difficult and catches are low, prices go up. But in summer, when fishing is easier and catches larger, they go down. However, fresh frozen cod fillets from peak catches are now available throughout the year at low prices.

Today Britain is no longer an island built on coal and surrounded by fish. The modern trawler, costs £200,000, is oil-fired and travels thousands of miles to find the fish. Last year the Distant Water trawlers brought in even more fish than in 1953 so keep pace with Britain's needs. It doesn't matter where you live in Britain, you can get fresh fish every day of the week. And thanks to the British Fishing Industry you enjoy a wider choice of fresh, good-quality fish at a lower price than anywhere else in the world.

HOW FOOD PRICES HAVE RISEN SINCE 1951



BRITISH TRAWLERS

THE BRITISH TRAWLER FEDERATION

Type of advertising copy used in British magazines and newspapers.

Trawlers Federation has been approved. The principal aim of the campaign to be initiated will be to increase public interest in cod. A levy of a halfpenny on every stone (4 U. S. cents per 100 pounds) of deep-water fish landed is to be imposed. This is expected to provide a sum from which £100,000 (US\$280,000) will be found for advertising purposes.

One statement published credits an official of the Association with saying that because of a mistaken idea that cod was an inferior fish, much had been left unsold.

"This mistaken view," he said, "is held not only by housewives but by inland merchants and fish friers. The friers will not look at cod for their business because they say customers demand either haddock or skate."

The coming campaign will cost double what has been spent in any previous year, reports the November 19, 1954, issue of The Fishing News, a British fishery paper.



Venezuela

SEVERAL SARDINE CANNERIES CLOSE DOWN: Several Venezuelan sardine canneries have been closed down due to the lack of local and foreign markets, according to the President of the Fish Cannery Association. In general, the canneries are operating at 30 percent of capacity, a January 12 U. S. Embassy dispatch from Caracas points out.

The President of the Association pointed out that this is a chronic condition because of the small local market which, though it may be increased a little, can never absorb the potential canned fish production. The only long-term solution of this condition, in his opinion, is foreign markets--some form of fish dollar, either a differential exchange, or an export subsidy.

* * * * *

FOREIGN-FLAG FISHING IN GULF OF VENEZUELA: Although Venezuela claims 3 miles for territorial waters, and 12 miles for vigilance, security, and protection of national interest, the complete extent of Venezuela's interests in the waters of the Gulf of Venezuela has never been fully defined and declared, according to the legal adviser of the Venezuelan Foreign Office.

New legislation governing the commercial fisheries off the Venezuelan coast is expected to be enacted under the provision of the 1953 Venezuelan Constitution for jurisdiction over waters of the continental shelf.

Venezuela and Colombia have in the past discussed and expect in the future to reach some bilateral agreement as to the jurisdiction of the two countries over the Gulf of Venezuela. According to the legal adviser the Colombians have indicated a desire to extend jurisdiction somewhat north of a line drawn across the Gulf from the northern point of the Goajira Peninsula to the northern point of the Paraguana Peninsula, probably eventually to be determined, taking into consideration the depths of the waters north of such a line. The primary interest of both Governments lies in possible submarine oil deposits, but the legal adviser felt that such an agreement between the two countries might well provide for control of fisheries also, a December 14 U. S. Embassy dispatch from Caracas points out.

Although, in the absence of legislation under the Continental-Shelf provision of the 1953 Constitution and in the absence of an agreement with Colombia, Venezuelan legislation only stipulates the 3- and 12-mile zones of jurisdiction, the legal adviser express-

ed the opinion that Venezuela's position as to the status of the waters of the Gulf of Venezuela should be recognized as at present indefinite. He indicated, for example, that any attempt by foreign-flag vessels to undertake large-scale commercial fishing operations in the Gulf would be accorded the most serious scrutiny of the Venezuelan Government, and probably would be opposed by both Venezuela and Colombia.

* * * * *

PRICES FOR 1955 PEARL CROP: The Managing Director of the Banco Agrícola y Pecuario, which has supported floor prices for pearls, informed the press on January 11 that the bank will not attempt to support the prices for the 1955 pearl crop as the bottom has dropped out of the pearl market.

On the bank's 1954 stock, he stated that only 400,000 karats of small-shot-size pearls were sold, 100,000 karats of rounds, and 50,000 karats of barroques. The bank still held 300,000 karats of barroques and 30,000 karats of unclassified pearls. When these have been disposed of the bank will be out of the pearl business, states a January 11, 1955, U. S. Embassy dispatch from Caracas.

A representative left for Mexico on January 6, 1955, to hunt a market for the Venezuelan pearls. The 1955 season began on January 3, 1955, and it is estimated this year's harvest will be worth Bs. 5,000,000 (US\$1,500,000). Despite the devalued Mexican money, it was believed that country offered good prospects for marketing Venezuelan pearls. Some inquiries have been received from India and buyers from there were expected later in the season. The pearl season in Venezuela is from January 1 to April 30, 1955.



SPARE COPIES OF 1947 COMMERCIAL FISHERIES
REVIEW AVAILABLE

The Service has available for distribution spare copies of the 1947 issues (volume 9) of Commercial Fisheries Review.

Issues are available for each month (Nos. 3 through 12) except January and February (Nos. 1 & 2). Listed below is one of the articles appearing in each issue:

- MAR. 1947 - "METHODS OF NET MENDING--NEW ENGLAND"
- APR. 1947 - "NUTRITIVE VALUE OF BAKED CROAKER"
- MAY 1947 - "NEW TYPE THERMOCOUPLE SEAL FOR TIN CONTAINERS"
- JUNE 1947 - "CORRELATION OF pH AND QUALITY OF SHUCKED PACIFIC OYSTERS"
- JULY 1947 - "NUTRITIVE VALUE FOR GROWTH OF SOME FISH PROTEINS"
- AUG. 1947 - "SOME STUDIES ON THE FEEDING VALUE OF FISH MEALS"
- OCT. 1947 - "BACTERIAL POPULATION OF BRINING TANKS IN FISH FILLETING PLANTS"
- NOV. 1947 - "NOTES ON FREEZING SHRIMP"
- DEC. 1947 - "THE CHESAPEAKE BAY CRAB INDUSTRY"

For these spare copies write the Branch of Commercial Fisheries, U. S. Fish and Wildlife Service, Washington 25, D. C. Single issues or a complete set of Nos. 3 through 12 may be requested. Requests will be filled as received until supplies are exhausted.