FOREIGN

International

EUROPEAN ECONOMIC COMMUNITY

ST. PIERRE FISHING BASE PLANS TAKE SHAPE:

Considerable interest is being shown by fisheries representatives of private industry in the European Economic Community (EEC) countries in establishing a base in St. Pierre for fishing craft belonging to member countries of EEC. Three committees from the fishing industries in the Common Market countries are meeting on the financial and technical phase of the project. The base would serve primarily as a supply and repair port for the Common Market country vessels and as a point of transshipment of catches.

The plan for the project, including establishment of an organization to carry it out, are to be completed by the end of 1963.

Although sitting in on the earlier meetings, Italian representatives have stated they no longer are interested in the project. Places on the committees and in the project are being reserved for Denmark, Norway, and the United Kingdom, if they are interested and become EEC members.

The Directors of the European Economic Community (EEC) Overseas Development Fund are reported to have agreed provisionally to invest about US$3.5 million in the first stage of the scheme for improving the harbor and fish receiving facilities of Saint Pierre, capital of the St. Pierre et Miquelon Islands, off southern Newfoundland. France, and the territorial government, will invest a further sum for ancillary shore facilities and a private group of French, Belgian, German, and Dutch fish processors will install filleting and cold-storage equipment.

The proximity of this improved facility to the Grand Banks, Newfoundland, and other rich fishing areas, will permit French and other trawlers (possibly including United States vessels) to use more of their time fishing and less traveling.

The first stages envision lengthening the seawall of the Ile aux Moules and construction of a new, second, freezing plant capable of handling some 18,000 metric tons of fish per year for producing about 5,000 tons of frozen fillets. The frozen storage capacity would be 1,200 tons. An associated factory would produce fish oil and about 2,500 tons of fish meal yearly.

The edible fish products produced by the new facility will be, in the first stage, destined for French and other European markets, but the possibilities of shipments to the United States are also believed to have been considered. (From European Regional Fisheries Attache, United States Embassy, Copenhagen, December 5, 1962; United States Embassy, Paris, December 16, 1962.)

EUROPEAN FREE TRADE ASSOCIATION

COMMITTEE WEIGHS FURTHER TARIFF CUTS:

The European Free Trade Association (EFTA) Consultative Committee, consisting of some 40 industrialists and trade union representatives from the seven member countries and from Finland (an associate member), gave favorable consideration at its December 4-5, 1962, meeting in Oslo to the further reduction of intra-EFTA tariffs. As scheduled, all member countries were to reach the halfway mark in tariff slashes by the end of December 1962, a point which (according to the Stockholm Convention which established EFTA) was to have been reached by January 1, 1965.

Discussing the progress within EFTA and the developments in the field of European in-

International (Contd.):

tegration since the last meeting of the Committee May 24, the Secretary-General noted that the reduction of intra-EFTA tariffs well in advance of the timetable laid down in the Stockholm Convention had been achieved with great advantage to the member nations and without injury to any facet of their economies. The delegates expressed the opinion that the reduction of tariffs should proceed, and requested the EFTA secretariat to make studies concerning a program of further tariff dismantlement.

The delegates discussed the American Trade Expansion Act of 1962, the implementation of which was seen as largely dependent upon some measure of agreement between EFTA and the EEC. The view was expressed that this in itself was an important factor, showing that the Americans were optimistic about the future of European integration.

The delegates felt that continued reduction of intra-EFTA tariffs would be of great help to their individual economies when the time came for integration with the EEC. It was reported that the reductions had already cut prices and stabilized the cost of living, and that further cuts would be even more beneficial to consumers. (EFTA Reporter, December 11, 1962.)

EUROPE

EUROPEAN FISH PRODUCERS ASSOCIATION (EUROPECHE) PLANS FOR FUTURE:

EUROPECHE, an association of national organizations of fish producers in the European Economic Community (EEC) countries, was established in May 1962. The membership is made up of three national organizations of fish producers in West Germany, and one each in Belgium, France, Italy, and the Netherlands. The headquarters office of the Association is located in Brussels, but its Secretary maintains offices in Oostende, Belgium. EUROPECHE aims to reach a common view on fisheries problems resulting from its activities and to make those views known to the EEC organizations.

EUROPECHE hopes to be a liaison organization between EEC or Common Market fish producers and the EEC--especially the EEC Commission. The nine-member Commission must "supervise the gradual establishment of a full Common Market, in which trade restrictions of all kinds will be abolished, and all goods, services, labor, and capital will circulate freely, and in which rules of fair competition are observed. Above and beyond that the Commission must work out and implement common policies for agriculture (includes fisheries), transport, and external trade, and work with the Council of Ministers towards common economic, monetary, and labor policies."

The Association recognizes that the Common Market alone cannot solve its fisheries problems without contact with other countries. EUROPECHE hoped to accomplish this through a modus vivendi with the United Kingdom and other countries. The Common Market Commission did not permit this but did approve of informal contacts between the Chairman of EUROPECHE and fisheries associations in other countries. The latter are kept informed of developments by this means, and have, on occasion, submitted their written views to the Commission through EUROPECHE. Observers from non-EEC countries may not attend EUROPECHE meetings.

The most important EUROPECHE body is the Board of Direction. It was due to meet in Paris the first week in January to develop a EUROPECHE position for the proposed EEC Fisheries Conference, probably to be held in February, possibly in Scheveningen, the Netherlands, or Stresa, Italy. The Chairman of EUROPECHE will attend the Conference together with similar observers from EEC-wide associations of national organizations of fish canners, fish freezers, and fish meal and oil manufacturers. As yet there is no association of national fish marketing organizations.

The first EEC Fisheries Conference may not accomplish much more than an inventory of the problems. Probably the most important discussions will be on fisheries limits and on national subsidies. There does not appear to be unanimity as to whether an EEC fisheries policy should be a fait accompli before the United Kingdom, Denmark, and Norway are accepted as members.

According to the Association's Chairman, the prevailing EUROPECHE view is that, under the Rome Treaty, fishing vessels of EEC countries may fish in each other's territorial waters under the freedom-of-movement provisions. A three-mile fisheries limit is regarded, for example, as merely a three-mile extension of the land boundary. Fishing vessels would, of course, have to abide by the fishing regulations of the contiguous country.

Such freedom of fishing and landing might well lead to "Euroports" for the fishing industry. These would be the ports which provided the best facilities for handling landings and the highest prices for catches because of processing and distributing or marketing advantages. Such ports would draw vessels from all Common Market countries and might affect the present status of fishing ports to a considerable degree. This and other developments are expected to lead to mergers of smaller producing interests to promote efficiency, obtain capital, and thereby better meet competition.

EUROPECHE, as such, is not directly interested in the contemplated Common Market fisheries base in St. Pierre, the French island just off the East Coast of Canada. However, the Vice Chairman and the Secretary are serving on industry committees which are developing plans for the project. (European Regional Fisheries Attache, United States Embassy, Copenhagen, December 19, 1962.)

FISH MEAL

WORLD PRODUCTION, OCTOBER 1962:

World production of fish meal in October 1962 was 31.4 percent greater than in the same month of 1961, according to preliminary data from the International Association of Fish Meal Manufacturers. World production during the first 10 months of 1962 was reported as 1,810,329 metric tons.

Most of the principal courtries producing fish meal submit data to the Association monthly (see table).

There was a large increase in fish meal production in October in Peru (up 21.1 percent), the United States (up 107.1 percent), Denmark (up 178.2 percent), Norway (up 47.2 percent), and Canada (up 57.5 percent). World fish meal production during the first 10 months of 1962 has been increased by heavier landings of anchoveta in Peru, record landings of pilchards in South Africa, record landings of summer herring in Norway and Iceland, and increased landings of industrial fish in Denmark.

International (Contd.):

World Fish Meal Production by Countries, October 1962

Country	October		Jan.-Oct.
	1962	1961	1962
	.... (Metric Tons)		
Canada	6,096	3,871	64,832
Denmark	12,641	4,544	84,788
France	1,100	1,100	11,000
German Federal Republic	5,444	5,597	61,998
Netherlands	600	900	4,300
Spain	1,949	2,194	21,725
Sweden	672	581	3,758
United Kingdom	5,564	5,105	62,196
United States	30,491	14,721	249,411
Angola	4,780	5,722	24,675
Iceland	357	1,052	92,762
Norway	11,932	8,108	107,239
Peru	92,353	76,269	819,638
South Africa (including South-West Africa)	2,550	4,600	202,007
Total	176,529	134,364	1,810,329

Note: Belgium, Chile, Japan, and Morocco do no report their fish meal production to the International Association of Fish Meal Manufacturers at present.

Peru accounted for 52.3 percent of world fish meal production (for countries listed) in October 1962, followed by the United States with 17.3 percent.

During the first 10 months of 1962, Peru accounted for 45.3 percent of total fish meal production, followed by the United States with 13.8 percent and South Africa with 11.2 percent.

FISH OIL

EUROPEAN MARKET IMPROVED IN DECEMBER 1962:

The fish oil market in Europe improved in the last five weeks of 1962, according to reports from West German and Danish fish oil brokers. At the time of the meeting of the International Association of Fish Meal Manufacturers (IAFMM) in London in October 1962, fish oil prices were at their lowest . One thousand metric tons of semirefined Peruvian fish oil were sold for US$70 per ton (about 3.18 U. S. cents a pound) c.i.f. European port. At the same time German herring oil manufacturers were selling their oil for $67.50 to $72.50 per metric ton (about 3.06-3.29 U. S. cents a pound) (ex-factory) German coast.

About mid-December 1962, semirefined Peruvian fish oil was sold by a German broker (c.i.f. European port) for $88.50 per ton (about 4.01 U. S. cents a pound). The late December 1962 price level was $88 to $90 per ton (about 3.99-4.08 U. S. cents a pound) for Peruvian fish oil and German herring oil was sold for $87.50 per ton (about 3.97 U. S. cents a pound). Sales of Danish fish oil have shown similar increases. United States menhaden oil was sold in December 1962 to Scandinavia for $100 per ton (about 4.54 U. S. cents a pound).

The reasons given for the improved market are as follows: (1) the efforts made in London to stabilize fish oil prices at the time of the IAFMM meeting in October 1962; (2) the purchase of 20,000 tons (the last sizable lot from the 1961 production) of whale oil in Rotterdam by a large British firm; and (3) the normal, low production of European fish oil in the winter. (European Regional Fisheries Attache, United States Embassy, Copenhagen, December 21, 1962.)

FOOD AND AGRICULTURE ORGANIZATION

SOUTHWEST ATLANTIC REGIONAL FISHERIES ADVISORY COMMISSION MEETS:

A meeting of the Regional Fisheries Advisory Commission for the Southwest Atlantic of the Food and Agriculture Organization (FAO) met in Rio de Janeiro, Brazil, December 10-14, 1962. This was the first meeting of this Commission since it was created by the FAO Conference at its 11th Session (October-November 1961). The purpose of the Commission is to advise the FAO on fisheries matters in the southwest Atlantic area, and encourage cooperative action in the exploitation of fisheries resources.

Argentina, Brazil, and Uruguay, the countries eligible to be members of the Commission, were represented at the meeting by official delegates and advisers. Observers from Spain, the United States, Japan, Poland, and UNESCO were also present. H. E. Crowther, Assistant Director, Bureau of Commercial Fisheries, represented the United States as an observer.

The meeting, conducted in Spanish only, followed the usual pattern of having plenary sessions for general discussion and the use of working groups to handle specific subjects. Three working groups were formed: 1. Oceanographic-Biological. 2. Technological-Economic. 3. Technical (to discuss FAO technical assistance programs of the three countries).

Delegates of the three countries worked harmoniously throughout the meetings and agreed on the need for cooperation to improve conditions in the fisheries of the South-

International (Contd.):

west Atlantic. Need was stressed for work in oceanography, marine biology, technology, marketing, and the training of personnel.

Delegates expressed a keen interest in the possibility of receiving assistance through the UN Special Fund. It was agreed that the three countries would submit individual proposals to FAO for financing under the Special Fund, but that the countries would cooperate in carrying out the projects through joint use of equipment and trained personnel.

The next meeting of the Commission will be in early December 1963 in Buenos Aires, Argentina, if approved by that government.

JOINT UNITED STATES-JAPAN COMMITTEE ON TRADE AND ECONOMIC RELATIONS

SECOND MEETING HELD IN WASHINGTON: The second meeting of the Joint United States-Japan Committee on Trade and Economic Affairs was held at Washington, December 3-5, 1962. The purpose of the meeting as expressed in the exchange of notes betweeen the U. S. Secretary of State and the Japanese Minister for Foreign Affairs dated June 22, 1961, was to exchange information and views in order that appropriate measures could be considered "to eliminate conflict in the international economic policies of the two countries, to provide for a fuller measure of economic collaboration, and to encourage the flow of trade."

The Joint Committee's discussions covered the whole range of United States-Japan bilateral economic relationships and dealt also with certain aspects of the economic relations of the two countries with the rest of the world.

Recognizing the close connection between domestic economic conditions and developments in international economic relations, the Committee considered first the current economic situation in the United States and in Japan. It noted that both countries have been making progress in meeting their recent economic problems. The Committee looked forward to the favorable effect on United States-Japan economic relationships of higher levels of economic activity in both countries.

The Committee reviewed the balance of payments positions of the two countries. It recognized the need to eliminate the deficit in the United States balance of payments, which has its origin in the unique role of the United States in the free world. It noted at the same time that Japan's economic growth, as well as its capability for meeting its international responsibilities, has been periodically threatened by disequilibrium in its balance of payments. It noted the measures being taken by both Governments to restore equilibrium, with special emphasis on export expansion.

The Committee agreed that expanding the volume of world trade would be a controlling factor in dealing with the balance of payments problems of both nations. In the further course of the balance of payments review, the Committee paid special attention to the need for close consultation and cooperation among the major industrial nations with respect to international monetary and financial matters.

In the field of international trade, the Committee emphasized the need for strengthening the multilateral trading system of the free world and for expanding trade between the United States and Japan. The Committee discussed the implications of developments within the European Economic Community for the economies of the United States and Japan. It agreed that an expanding and unified economy in Western Europe, operating on an open and liberal basis, would make a major contribution to the expansion of world trade.

The United States delegation gave a preliminary exposition of the actions the United States expected to take under the recently enacted Trade Expansion Act of 1962. The Japanese delegation welcomed the Act as a reaffirmation of the liberal trading policies of the United States and expressed the hope that it would be the means to the fullest possible extension of open and nondiscriminatory trading in the free world.

The delegations discussed the desirability of a major new negotiation on tariff reductions at the earliest feasible date, to take place under the Articles of the General Agreement on Tariffs and Trade (GATT). They also agreed that tariff reductions arrived at in a new round should be applied in full accordance with the unconditional most-favored-nation clause of the General Agreement and that efforts should be made to secure the participation in the negotiations of all the contracting parties to the GATT on the fullest possible basis. The Committee agreed

International (Contd.):

on the importance of assuring that the value of tariff concessions should not be impaired by quantitative and other nontariff restrictions, whether applied generally or on a discriminatory basis.

In the exchange of views about the bilateral economic relationship between Japan and the United States, Japan's restraints on exports to the United States were discussed and the Japanese delegation expressed the hope that developments in the United States would permit their early relaxation. The Japanese delegation expressed its serious concern over some features of the official procurement policies of the United States Government which have resulted in reduced purchases in Japan. The United States delegation explained the role of these policies in maintaining defense and foreign aid programs, freedom of capital movements, and policies aimed at domestic economic expansion. The Japanese delegation also raised questions with respect to relations in the fields of shipping and aviation. On the part of the United States delegation, emphasis was placed on the importance of further trade and exchange liberalization in Japan.

The Committee discussed in detail mutual problems in the fields of agriculture and fisheries. Attention was paid to the role of natural resources in investment and trade between the two countries, with special mention being given to the possibilities for building upon the close geographic link between Alaska and the Pacific Northwest and Japan.

In examining the economic relations of the two countries with other parts of the world, the Committee welcomed the progress that has been made toward the elimination of discriminatory restrictions on Japan's exports and expressed the hope that remaining restrictions of this kind would be removed at an early date.

The United States delegation expressed the strong support of the United States Government for fuller participation by Japan in the Organization for Economic Cooperation and Development (OECD) and stated that it favored full Japanese membership in that organization in the near future.

The Joint Committee agreed that both Japan and the United States should continue and coordinate their efforts to assist economic progress in the developing countries. The members reviewed current levels of assistance and expressed their understanding of the urgent need for an expanding volume of financial and technical aid. The delegations also discussed the desirability of expanding the resources of the International Development Association and expressed their intention to support such expansion.

Attention was also given to the need of the developing countries for greater export earnings. The Committee considered that means should be found to provide the developing countries with improved and nondiscriminatory access to the markets of the industrial countries. It was noted that technical assistance might be devoted to improving the marketability of the export products of the developing countries.

In reviewing their deliberations, the members of the Committee unanimously expressed the belief that the annual meetings are of great value in furthering mutually beneficial economic relations between the two countries, to which both governments attach major importance. Both delegations look forward to the continued development of the Committee as an effective instrument to carry out the high purposes for which it was established.

INTERNATIONAL LABOR ORGANIZATION

FISHING INDUSTRY WORK RULES DISCUSSED AT GENEVA MEETING:

Working conditions in the world's fishing industries were discussed by a special technical committee of the International Labor Organization (ILO), at a December 10-19, 1962, meeting at Geneva, Switzerland.

The objective of the meeting was to lay the groundwork for possible international conventions covering crew accommodations and safety, accident insurance, vocational training, and certificates of competency. If the committee presents draft conventions to the ILO, they will later be considered by the International Labor Conference, which is the periodic meeting of delegates from 104 nations, including the United States, to discuss world labor problems.

Thomas Rice, assistant to the Commissioner, Fish and Wildlife Service, U. S. Department of the Interior, and Charles Jackson, former general manager of the National Fish-

International (Contd.):

eries Institute, participated as members of the committee.

Rice served as a Government member of the committee and Jackson as an employer representative. There are 18 members of this special committee, six each from labor, management, and government, selected from various member nations of ILO.

ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

FIFTH MEETING OF FISHERIES COMMITTEE:

The Fifth Meeting of the Fisheries Committee of the Organization for Economic Cooperation and Development (OECD) was held in Paris, France, October 22-24, 1962. Seventeen countries and FAO were represented at the meeting. The United States representative was A.W. Anderson, Regional Fisheries Attache for Europe.

Most of the meeting was devoted to a careful review of draft papers on subsidies and other financial supports to fishing industries in Canada, Denmark, Germany, Norway, Portugal, Sweden, Turkey, and the United States. The various reports will be redrafted in accord with modifications offered by the Committee.

A report was also made to the Committee on a proposed meeting of experts to deal with the promotion and harmonization of quality standards for deep-frozen fish. The meeting was scheduled to be held in Hamburg December 17-19, 1962.

The Committee also adopted recommendations to the Council of the OECD regarding the operational program for 1963 and technical assistance in less-developed countries. Program proposals for calendar year 1963 include the following operational projects:

Continuation of activities started in 1962:

1. Promotion of quality standards for deep-frozen fish and the study of their harmonization (i.e., changing present standards of member nations so as to achieve uniform standards of quality for frozen fish within the OECD).

2. Promotion of quality standards for canned fish.

3. Development and improvement in methods encouraging fish consumption. (A study and report on this subject is now in process.)

New activities:

1. Study of economic factors involved in the rational exploitation of the resources of the sea. (This study entails (1) a preliminary analysis of the present situation for, and prospects on, the economic utilization of the resources of the North Atlantic and (2) a synthesis of the results of previous studies in this field and the status of any practical use made of these studies.)

2. Improve commercial information on fisheries. (Includes a study on the establishment of a market-news type service in European countries.)

3. Development of a detailed multilingual nomenclature of the different species of fish and varieties of fish products entering international trade.

The next meeting of the OECD Fisheries Committee is tentatively scheduled for the end of January 1963.

* * * * *

PUBLICATION ISSUED ON SANITARY REGULATIONS FOR FISHERY PRODUCTS:

The fishing industry of the United States and of other nations of the Organization for Economic Cooperation and Development (OECD) should derive assistance from the recent OECD publication, "Sanitary Regulations for Fish and Fish Products." The document is a detailed study of the regulations used by OECD member governments to exercise control over health and sanitary factors in the production of fish and fish products.

The study was undertaken on the assumption that, although sanitary regulations are essential for the protection of the health and welfare of the consumer, it is also possible that the regulations may hinder the free flow of trade. Unless administered in a reasonable and practical manner and unless uniform quality standards are established and accepted by OECD member countries, it is believed that conflicting regulations could be detrimental to the movement of fishery products in international markets.

The OECD instituted the study by investigating the sanitary regulations for fish and fish products in force in the United States, Canada, and the 18 European nations in the organization. In 1960, a special consultant was hired to conduct the study. In December 1961, experts from the OECD countries held a meeting to examine the consultant's draft report; to analyze the scientific, technical, and economic factors which have been responsible for the establishment of the sanitary regulations now in force in member countries; and to determine the practical measures to be taken to establish uniform standards of quality that would be accepted by the member countries. These data presented at the meeting, including the consultant's report and the conclusions and recommendations of the experts, are included in the publication.

Note: Sanitary Regulations for Fish and Fish Products, OECD Document No. 51, may be purchased from OECD Regional Office, Suite 1223, 1346 Connecticut Avenue NW., Washington 6, D. C. Price is $1.50.

Australia

AID FOR FISHERIES PROPOSED BY GOVERNMENT:

The Australian Commonwealth Government has agreed to subsidize private fishing enterprises if their prospects are reasonably bright, a conference of State Fisheries Ministers was told in Sydney.

The Government is interested in soundly-based schemes. It will not assist fly-by-night projects. One condition for Commonwealth aid is that the company must also operate outside State territorial waters.

If such schemes, however, haven't the capital to get under way, the Government is prepared to buy shares in the company and then sell them on the open market when the company is on its feet.

Several projects suggested by the various States at the Sydney conference will be considered, in priority, by the Commonwealth.

Among the projects for which aid is sought are the development of a tuna fishery in northwest Western Australian and tuna and shrimp fisheries in Queensland.

Finance for such schemes will come from the Fisheries Development Trust Fund which was established several years ago when the Commonwealth sold its whaling station at Carnarvon, Western Australia.

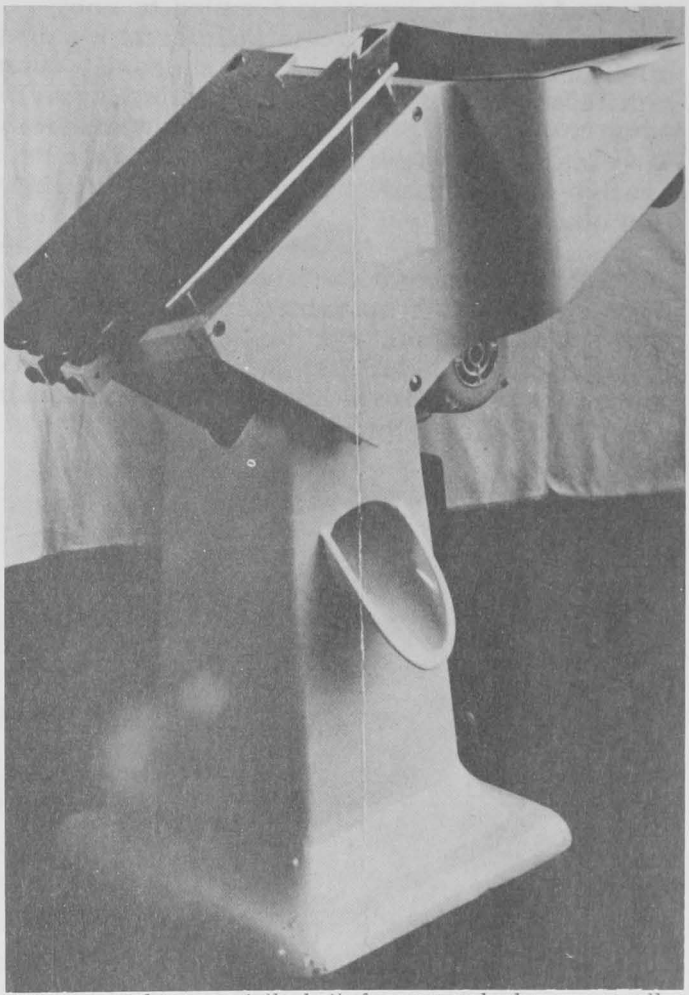
The conference considered a series of proposals on fisheries research, development and administration, and discussed the need for uniform regulations for the management of fisheries.

The Minister for Primary Industry told the conference that Commonwealth funds would be provided to bring an international expert to Australia to advise on fishing vessel design. The States will be asked to contribute to the cost of the visit. (Australia Fish Trades Review, October 1962.)

Belgium

FILLETING MACHINE DEVELOPED FOR HERRING AND PILCHARD:

A filleting machine designed primarily for herring and pilchard has been placed on the market by a manufacturer in Antwerp, Belgium. The new machine is the result of 15 years of development and practical experience in constructing a filleting machine that is compact, economical, simple to operate, and of minimum weight. It can be easily installed, is rustproof, and is suitable for operation in any temperate or tropical climate.



Filleting machine specially built for sprat and other very small fish.

The machine is of stainless metal, with most parts made of aluminum, has an electric motor of 370 watts, 1,450 r.p.m., 220/380 volts 3-phase a.c., 50 cycles. Can also be furnished with other electrical specifications. Net weight of the machine is about 88 pounds. It needs only 10 square feet of factory space when installed. A special feature of the machine is that it produces very little noise--only a slight hum from the motor and the cutting of the fish.

The machine cuts butterfly-type fillets, and can also cut single fillets by simply turning a knob. A trained operator will be able to fillet about 3,600 herring an hour. If heads

Belgium (Contd.):

are to be removed during the filleting operation, the output is about 2,000 herring an hour. Some of the characteristics of the machine are that it automatically adjusts itself to various sizes of fish when unsorted fish are fed into it. It is capable of cutting all types of herring from hard-cured to very soft matjes, and heads and tails can be cut off if desired. Also, the machine easily cuts mutilated fish or pieces without blockage. It uses from 1 to 1½ gallons of water a minute for cleaning the fish during the filleting operation and for sluicing the waste out of the machine.

The Belgian manufacturer has also built a special filleting machine for a German firm. The machine was designed to fillet sprat counting 36-45 fish per pound. The manufacturer believes that model could be adapted to fillet other small fish such as smelt.

The machine will be exhibited at the World Fishing Exhibition to be held in London, England, May 27-31, 1963.

British Solmon Islands Protectorate

FISHERIES DEVELOPMENT, 1962:

Protectorate authorities are convinced that the waters around the Solomon Islands are filled with fish which could be commercially exploited. Until recently, organized fishing in the Solomon Islands was limited to the efforts of a small cooperative in Honiara and several individuals in the eastern Solomons. In late 1962, an Australian with business interests in the Solomon Islands surveyed the commercial fishing potential of the Solomons. He was trying to determine if live bait could be caught in sufficient quantities to justify a commercial fishing venture. The Australian's business interests in the Solomons include part ownership of a refrigeration plant in Santo.

The Protectorate Government purchased the 45-foot fishing vessel San Juanita in the first part of 1962. The vessel is being used to survey fishing grounds off the Solomons and to teach local people modern fishing methods. In May 1962, the San Juanita landed 15,885 pounds of dressed fish in Honiara. The catch, valued at £A1,200 (US$2,676), was partly caught by fishermen from the local co operative for whom the vessel acted as a mothership. The Protectorate Government also plans to provide refrigeration for the local fish catch. Fish is important in the Solomon Islanders' diet. To carry out the new program, the Government has establishe a Fisheries Section in the Department of Agriculture. (United States Consulate, Suva, December 1, 1962.)

Canada

STUDIES AIM TO PREVENT GLUTS IN NEWFOUNDLAND'S SUMMER COD FISHERY:

The extensive spring and summer trap-net cod fishery in Newfoundland presents a singular situation which is now being investigated by the Fisheries Research Board of Canada. This phase of the Newfoundland cod fishery is unique in that the inshore fishermen have full control of the resource for a limited period.

In late spring and early summer vast schools of cod swarm to the inshore waters in pursuit of capelin. These cod come with-

Canada (Contd.):

in the three-mile limit and are thus beyond the reach of both Canadian and foreign trawlers. As the cod gorge themselves on the smelt-like capelin they are caught in trap nets and the heavy catches present a problem of temporary glut. This heavy supply in a short period creates the question of how best to handle it.

The Board's technologists agreed that one solution would be to spread the operation over a longer period. Two factors were considered: (1) the most efficient use of the labor force and (2) the preservation of the cod for processing after the heavy run of the fish comes to an end in August. There are several possible ways in which that can be done.

First of all, fish could be frozen in the round state with heads and viscera removed or partly processed in the form of rough fillets. That would mean that the fish would be filleted without the skin being removed. Later the round fish or fillets could be thawed and processing then completed. The scientists explored two types of freezing. One was the conventional plate freezing and the second brine-freezing. The latter method would permit more rapid thawing by air or water.

Another approach to the problem of keeping the fish was by live-holding. They would be kept in confinement in the traps until ready for use. That would help level off production over a longer period. Although this method has not yet been fully investigated, preliminary results have been encouraging. Scientists found that holding the live fish had no adverse effects on quality.

Methods of thawing were also explored. There are three methods; water, air, and radio-frequency thawing. Known as dielectric thawing, the last method is carried out by an apparatus which transmits radio waves into the fish. The energy is absorbed by the ice in the fish and the thawing is done more speedily than by the air or water methods.

The experiments both in freezing and controlled thawing have thrown light on many problems and the Board was told, at its annual meeting in Ottawa early in January this year, that the outlook for a satisfactory answer to some of the riddles involved in the summer cod invasion of Newfoundland inshore waters is encouraging. (Canadian Department of Fisheries, January 7, 1963.)

* * * * *

BRITISH COLUMBIA

HERRING PRICE DISPUTE SETTLED:

Fishermen's representatives and herring processors in British Columbia signed agreements on November 30, 1962, ending a six-week price dispute. The agreements raised the ex-vessel price of herring used for meal and oil processing from C$10.40 (US$9.67) to C$11.40 (US$10.60) effective December 2, 1962. Under a retroactive agreement, processors will pay an adjustment of C$0.56 (US$0.52) a ton for reduction herring caught under the previous agreement between September 1, 1962, and October 16, 1962. It is reported that under the new agreements the individual fisherman's share of the catch will be raised to C$1.425 (US$1.324) per ton; also,

Off the British Columbia Coast, a Canadian purse-seiner is drawing the net tighter around a good catch of herring.

there is no change in the ex-vessel price of C$16.00 (US$14.88) for herring used for bait and other purposes. ("Facts on Fish," Fisheries Association of B.C., December 1962.)

The price paid British Columbia fishermen for herring to be made into fish meal and oil is not comparable with United States ex-vessel prices since plant operators in Canada own the vessels and gear and provide for most of the operating expenses.

Notes: (1) C$1.0756 equals US$1.
(2) Also see Commercial Fisheries Review, January 1962, p. 45.

* * * * *

Canada (Contd.):

SCIENTISTS STUDY CHEMISTRY OF THE NORTH ATLANTIC LOBSTER:

Fishery scientists of Canada's Fisheries Research Board research station in Halifax, Nova Scotia, are taking a slightly different look at the highly-prized North Atlantic lobster which brings millions of dollars to Canadian Atlantic Coast fishermen each year. This time the scientists are concentrating their efforts on trying to unravel the mysteries of the creature's chemistry.

A report on the physiological approach to this shellfish with its armor-like shell was given early in January this year at the annual meeting of the Board in Ottawa.

Large holding tanks have been installed in the Halifax Technology Station capable of holding hundreds of lobsters. A long pipeline extends from the Station to the bottom of Halifax harbor to provide a continuous fresh supply of sea water to keep the lobsters alive.

There are many things the scientists hope to find. They are interested in the lobster's moulting process. Each time a lobster sheds its shell its growth and weight increase substantially. Would there be a way to increase the number of moults? That answer in itself would be a big step forward in the field of lobster research.

An important aspect of the whole program, of course, is the lobster's health. Normally, lobsters are healthy creatures. However, like all living creatures they are sometimes affected by disease. That is why the technologists want to know more about the lobster's body chemistry.

In the summer of 1962 there were casualties among lobsters stored in certain tidal holding pounds. The Board's scientists moved in to find out the cause. Samplings were made of lobsters from different districts where the casualties occurred and all indications were that the creatures had been infected with a specific bacterium while still in the sea. With the source of the trouble reasonably well identified, scientists were able to advise necessary steps to help counteract the situation. It is emphasized that this condition is not harmful to humans. (Canada's Department of Fisheries, January 7, 1963.)

* * * * *

REBIRTH OF NOVA SCOTIA WHALING INDUSTRY STIMULATES STUDY OF WHALE OILS:

The rebirth of the whaling industry in Nova Scotia, after a lapse of more than a century has given impetus to a study of whale oil in the laboratories of the Halifax Technological Station of the Fisheries Research Board of Canada. One phase of the project called for a comparative study of the qualities of oil from bottlenose and sperm whales. The two oils were shown to be essentially similar.

Details of the whaling operation and its scientific phase were given in a report submitted to the Board's annual meeting early in January 1963.

The interest in comparing bottlenose and sperm whale oils stemmed from the fact that the Nova Scotia operation is mainly concerned with the former species. The one vessel initially engaged in the project was unable, because of its small size, to hunt and boat the larger sperm whales, which measure up to 50 feet in length. Bottlenose whales were the chief prey of the catcher vessel and about 35 were harpooned last summer.

Although sperm whale oil brings a higher price than oil produced from the bottlenose whale, Halifax scientists have shown that the composition of sperm and bottlenose oils is basically the same. There are a few minor differences, but they are not regarded as of much significance by the Station's technologists. As opposed to ordinary fish oil and whale oil from the blue, fin, humpback, sei, and other whales, the sperm and bottlenose oils are largely, in a chemical sense, waxes. The wax, when extracted, is soft and white. The hard part of the wax separates itself on cooling and is used for cosmetics and medicinal preparations. The residual oil has many uses and has excellent lubricant qualities.

In addition to supplementing knowledge of whale oils generally, the findings of the Halifax scientists could mean economic benefits for the revived whaling operations.

The revival of Nova Scotia's whaling industry is a fascinating sequel to Nova Scotia's whaling history which began in the 1780's. It flourished for about a decade and then died. In the first half of the 1800's it flourished again and then declined to revive again more than a century later in 1962.

Canada (Contd.):

The Nova Scotia whaling operation is still in the experimental stage. Its sponsors hope to increase the effort this spring and are hopeful that more boats will be encouraged to join the industry. (Canada's Department of Fisheries, January 7, 1963.)

Colombia

CERTAIN TYPES OF FISHING GEAR BANNED IN COASTAL WATERS:

By a Decree effective November 9, 1962, the Colombian Ministry of Agriculture prohibits fishing with bottom-trawl nets within a nautical mile of the Colombian coast. Also fishing with gear requiring more than three men is prohibited within three nautical miles of the mouths of most Colombian rivers. Protection of the breeding grounds of certain fish was the reason given for the Decree. (United States Embassy, Bogota, December 5, 1962.)

Denmark

NEW COMMERCIAL COLD-STORAGE FACILITIES IN LIBERIA AND NIGERIA PLANNED:

A Danish firm expects to open two new commercial cold-storage warehouses on the coast of Western Africa in 1963. One will be in Monrovia, Liberia, and one will be in the Port of Apapa, Nigeria. The cold storage in Monrovia is expected to open in May 1963. The Danish firm is presently operating three cold storages in Ghana, two of which are located in Tema and the third in Accra.

France

IMPORTS OF JAPANESE FROZEN TUNA:

Japanese press reports indicated that the special import quota of 3,500 metric tons established in spring 1962 by the French Government to permit the importation in 1962 of Japanese frozen tuna was expected to be filled. As of early December, Japanese exports of frozen tuna to France were said to total 3,300 metric tons and negotiations were being conducted for the delivery of 200 metric tons to fill the French import quota.

Reportedly, yellowfin tuna originally were the main species exported to France. However, following problems concerning their quality, emphasis was placed on exporting albacore. The albacore tuna were reported to have brought a high of $450 a metric ton (c.i.f. France) and as of early December were said to be selling for $420 per metric ton. (Suisan Tsushin, December 5, 1962.)

* * * * *

SHIPYARDS GET KOREAN ORDER FOR 160 FISHING VESSELS:

Shipyards in Dieppe, France, are reported to have received an order for the construction of 160 fishing vessels for the Government of South Korea, and the report goes on to say that the Dieppe yards could expect more orders in the near future.

The French order is obviously a result of a recent loan of US$120 million by an Italian-French combine for the development of Korea's fishing industry. The agreement embodying this loan is said to call for the construction of over 700 new fishing vessels with an average gross tonnage of 160. Most of them will be built in Europe, but a few are expected to be constructed in South Korea. The motors and equipment for those built in Korea will be shipped from Europe.

When this program is completed it is expected that the South Korean fleet will be about double its present strength.

The Italian-French combine is to train Korean fishermen and technicians and assist in marketing Korean fish and fishery products throughout the world.

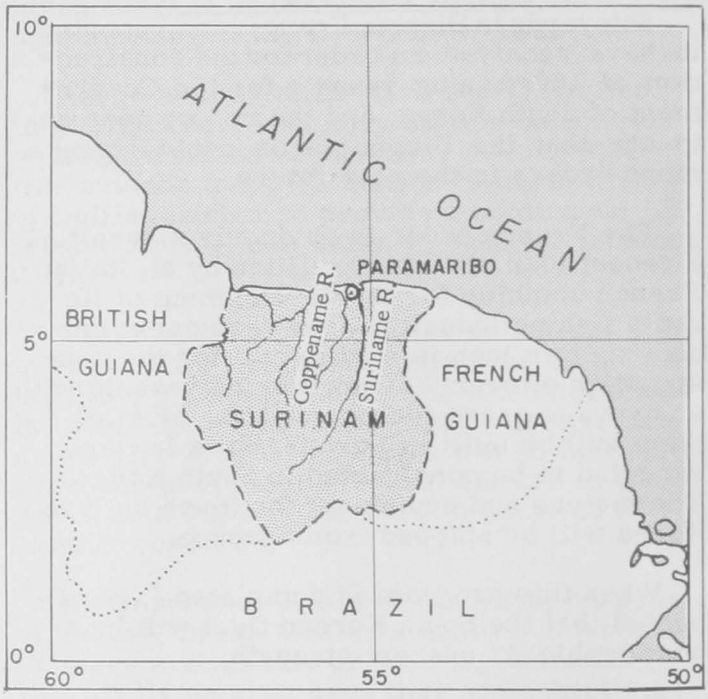
This project is expected to boost the annual Korean catch to over 1,000,000 metric tons. (The Korean catch in 1961 amounted to 412,000 tons.) Modern facilities are to be created at six Korean ports for the proper handling and storage of the increased catch. (The Fishing News, London, December 14, 1962.)

Note: See Commercial Fisheries Review, December 1962 p. 77, October 1962 p. 62, August 1962 p. 79.

French Guiana

TWO UNITED STATES FIRMS TO DEVELOP SHRIMP FISHERY OF FRENCH GUIANA:

A fishery firm of Tampa, Fla., has started building a shrimp packing plant at St. Laurent, French Guiana. In November 1962, seven shrimp vessels were on the way to French Guiana to fish the shrimp grounds 60 miles off the coast of French Guiana. Fifty shrimp vessels will be operating off French Guiana within a year, according to the Florida firm's manager at St. Laurent. It is expected that most of the vessels will be from the United States and that the families of the vessels' captains will go to St. Laurent.



The new shrimp-packing plant at St. Laurent will be located at the mouth of the Maroni River. It will be housed in buildings which were formerly part of the St. Laurent Penal Colony. Two large freezers and an ice-making machine are already installed. According to the manager, investment in the plant is now US$225,000 in imported equipment and local construction materials. A shrimp-grading machine will be imported in the near future, and a dock for loading will be built. Shrimp will be graded, packed, and frozen at St. Laurent and shipped to the United States once a month by merchant ship. The new shrimp operation was expected to create jobs for 100 residents of French Guiana before the end of 1962.

Another United States firm is interested in building a shrimp-packing plant near Cayenne, French Guiana. The firm has succeeded in getting $80,000 worth of credits from the French Government for the installation of water lines to their plant site outside Cayenne. (United States Consulate, Martinique, November 30, 1962.)

French Polynesia

IMPROVEMENT OF FISHERIES PLANNED:

Surrounded by a sea abounding in fish and shellfish, French Polynesians have always devoted much of their time to fishing as a principal source of food. However, fishing methods are primitive and fishing is limited to the lagoons, streams, and reefs. Almost all the catch is consumed locally or marketed in the urban centers such as Papeete. It is estimated that 1,000 tons of locally-caught fish are sold annually in the markets of Papeete. However, the local catch has never been sufficient to meet growing demands and the territory imports a considerable quantity of canned fish.

The short supply of local fish is due to the lack of refrigerated shipping or storage in the Islands, and the scarcity of fish close to the major population centers (particularly in the lagoons around Tahiti) depleted. To counter those difficulties, a number of measures have been taken in the past two years. Most of the Territory's fishermen have formed cooperatives to pool financial resources for the purchase of larger vessels, and more modern fishing gear. Also, cooperatives have negotiated a number of loans with Government lending agencies. The Government, in turn, has installed refrigeration equipment in several urban centers for fish storage and introduced ice plants in several islands near the main fishing grounds so that the cooperatives can ice-down their catches for shipment to Papeete and elsewhere.

However, the movement of fish to market remains difficult and the urban centers are still largely dependent on imported canned or frozen fish. The Government hopes during its present five-year development plan to introduce sufficient ice houses, small refrigeration plants, and "ice-boats" to the Territory to eventually make possible self-sufficiency with respect to fish.

The French Government at Papeete has long been interested in introducing offshore

French Polynesia (Contd.):

commercial fishing, fish canneries, and fish byproduct plants. Those would provide increased employment, exports, and would help to expand the narrow base of the Territory's economy. The French Government feels that the sea is one of the Territory's richest but most neglected natural resources. Early in 1962 the Government at Papeete approved a proposal by a United States tuna-canning company to invest CFP70 million (US$795,000) in a fish cold-storage plant near Papeete. At the outset it is planned that 16 Japanese long-line fishing vessels of about 76 tons will supply the plant with tuna. Later, if justified, the fleet would be increased to 40 or 50 vessels and a tuna cannery would be built. It is expected that the frozen fish will be marketed locally, as well as in Japan, the United States, and France. Native fishermen would be protected by prohibiting fishing close inshore and in other traditional native fishing grounds. It is anticipated that this United States firm will begin operations this year.

French Polynesia is a source of the relatively rare "black pearl" type oyster shell. Other sources are the Cook and Fiji Islands. For many years the collection and export of mother-of-pearl shell was uncontrolled and caused serious depletion of the resource. Harvesting and export are now rigidly controlled, but the harvest still fluctuates widely due to fluctuations in world demand and price, but also due to the availability of the best pearl shell.

Shell prices have fluctuated wildly in recent years, and are dependent on economic conditions in the United States and Europe--the Territory's principal markets. However, prices have risen over recent years from a low of CFP45 per kilo (about 23 U. S. cents a pound) in 1951 to a 1962 high of about CFP200 per kilo (about US$1.03 a pound) f.o.b. Papeete. Except for 1958 when the price dropped to a low CFP75 per kilo (about 85 U. S. cents a pound), the value of pearl shell has risen but production has varied considerably and dropped somewhat in the past two years. The Government during 1961-65 plans to spend about CFP7.5 million (about US$85,000) on rehabilitating the pearl shell beds and on the development of pearl-shell oyster culture. The Government hopes to increase annual exports of pearl shell by at least CFP20 million (about US$220,000) annually by 1975. With respect to pearl-shell oyster culture, seeding is now being carried out on an experimental basis in several areas by a Japanese company.

The United States was at one time a primary customer of the Territory's pearl shell exports, but is now second to West Germany due to the introduction in the United States of plastic buttons. (United States Consul in Suva, January 3, 1963.)

German Federal Republic

FISHERIES RESEARCH LABORATORIES:

Because of the accessible fishing grounds off West Germany's Baltic and North Sea coasts plus those in international waters within the range of the deep-water vessels, West Germany has long recognized the value of both applied and basic fisheries research. Fisheries research activities are headed by the Federal Research Station for Fisheries (Bundesforschungsanstalt fur Fisherei) located in Hamburg. This station has five branches and several substations.

German commercial fishermen in 1959 landed 770,000 metric tons of fish and in 1960, 593,000 tons. Only Norway, Great Britain, and Spain surpass Germany as fishing nations in Europe. The fishing industry contributes approximately DM 3.8 billion (US$950 million) each year to the gross national product.

The oldest fisheries research laboratory is the Biologische Anstalt (Biological Station) at Helgoland which was established by Prussia in 1892. Anton Dohrn, the eminent marine biologist, whose descendents still operate the Marine Biological Laboratory in Naples, was the moving spirit in this enterprise, together with Friedrich Heincke. It was absorbed into the Reichsanstalt fur Fischerei (National Fishery Institute) which was founded in 1938 in Berlin. With the downfall of the Third Reich and the formation of the German Federal Republic, the Institute was given its present name and Federal affiliation in 1950.

The Biological Station at Helgoland is primarily concerned with basic research in the field of general marine biology. There are laboratories for zoology, animal physiology, botany, microbiology, fish biology, and plankton studies. In the tradition of marine biological laboratories elsewhere (Naples, Italy, Woods Hole, Mass. etc.), facilities are available for guest investigators, who fre-

German Federal Republic (Contd.):

quently spend summers or longer periods on some specific aspects of marine biology.

In addition to the Biological Station at Helgoland, there are four other branch laboratories located in Hamburg. These are: (1) Institute for Deep Sea Fishing; (2) Institute for Coastal and Inland Fishing; (3) Institute for Netting and Materials Research; and (4) Institute for Fish Processing. The types of activities at each of those institutes are indicated from their names. Virtually all problems of deep-sea and inland fishing are studied, especially the biology of edible fishes plus the seasonal changes of fish availability, development of new means for capture, etc. The Institute for Deep Sea Fishing also maintains a branch laboratory in Bremerhaven, and stations for shoals research in List and Sylt.

Fisheries research is conducted by a staff of 157 (including 124 administrative and technical employees). The budget for 1962 was DM3.0 million(US$750,000), a slight apparent decrease from the DM3.4 million (US$850,000) in 1961. Actually, the allotment for fisheries research was substantially increased over 1961. Over a million DM ($250,000) of the 1961 budget was allocated to completion and purchase of equipment for a new service building. (United States Embassy, Bonn, August 15, 1962.)

Ghana

FISHERIES BILL STIRS DEBATE ON FOREIGN-OWNED TUNA BASE:

The Fisheries (Amendment) Bill, 1962, was debated in the Ghanaian National Assembly on December 4, 1962. The Bill provides that the shares of a company or group of persons engaged in the fishing industry in Ghana must be wholly owned by Ghanaian nationals resident in Ghana, with the exception of a foreign-owned company under contract with the Ghana Government for the purpose of exporting fish to another country.

The international subsidiary of one of the large United States tuna packers signed an agreement with the Government of Ghana in October 1960. The agreement gives the firm the right to process and export tuna in Ghana for a period of 35 years. The firm agreed to train Ghanaians in tuna fishing and to provide other unspecified technical assistance and advice. The firm also obtained an option to build a tuna cannery at Tema within two years if feasible and in the company's interest. The option for the cannery lapsed on October 16, 1962.

The rights of the company under its agreement with Ghana would be protected by the exception in the new Fisheries (Amendment) Bill. During debate on the Bill, a member of the opposition party in Ghana stated, "I do not think it is proper at this time in Ghana when we need fish so badly to allow a foreign firm to export our fish overseas."

In reply, the Ghanaian Minister of Agriculture pointed out that deep-sea tuna fishing is not exploitation of territorial waters. The Minister stated, "The present arrangement (with the United States firm) is more of transshipment than exploitation of our territorial waters. The presence of these vessels in Ghana is beneficial because not only do these vessels use our port facilities, but also the tuna fish which has a limited market here is exported through them. In fact the tuna is more for export than for local consumption. Our own Fishing Corporation has two tuna fishing vessels which are going to be used for tuna fishing for export in order to earn foreign exchange, mostly scarce dollars. The main object of the agreement was in cooperation with our own Fishing Corporation to develop tuna fishing industry.

The Minister of Agriculture also pointed out that agreements must be honored. He explained that the agreement with the United States firm has been referred to the Ghanaian Minister of Justice for review because certain conditions in the agreement had not been honored. (United States Embassy, Accra, December 11, 1962.)

Guatemala

SHRIMP EXPORTS INCREASED SHARPLY IN 1962:

In its annual report on the fishing industry, the Department of Hunting and Fishing of the Ministry of Agriculture reported that Guatemala exported close to 1.9 million pounds of shrimp with a gross value of about US$1.8 million during the year ending November 30, 1962. The Department estimated

Guatemala (Contd.):

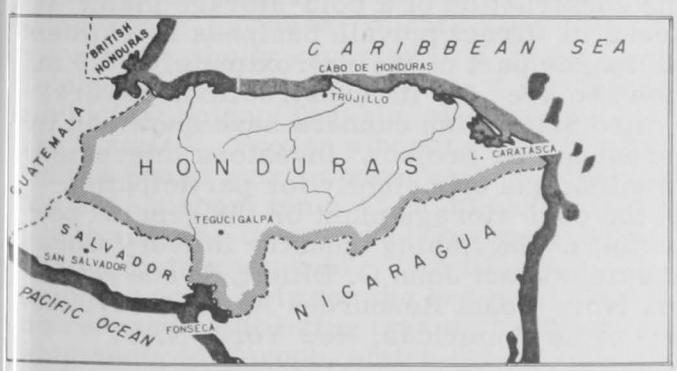
that the net value (less commissions, freight, insurance, and other costs) entering Guatemala as foreign exchange was close to $1.6 million. In addition to the shrimp, about 279,000 pounds of other fishery products were landed for local consumption.

During calendar year 1961, Guatemala exported shrimp valued at about $210,000, or only about 11 percent of the value of the shrimp exports made between December 1, 1961, and November 30, 1962. Landings by ports for the year ending November 30, 1962, were: Puerto San Jose, 803,940 pounds of shrimp and 154,709 pounds of fish; Puerto Champerico, 936,600 pounds of shrimp and 115,000 pounds of fish; and Puerto Barrios, 118,931 pounds of shrimp and 9,703 pounds of fish. (United States Embassy, Guatemala City, January 3, 1963.)

Honduras

UNITED STATES FIRM ENTERS SHRIMP AND SPINY LOBSTER FISHERIES:

A United States firm began operating a 140-foot transport vessel in the shrimp and spiny lobster fisheries off the North Coast of Honduras during the latter part of 1962.



The vessel, which is equipped with freezing and ice-making equipment, loads the shrimp and spiny lobster catch of about 40 small boats in the vicinity of Caratasca and transports it to Tela, Honduras. The shrimp and spiny lobster are flown from Tela to Miami, Fla., by a "C-46." The firm expected to make one airborne shipment per week to Miami with about 12,000 pounds of spiny lobsters and shrimp. (United States Embassy, Tegucigalpa, November 29, 1962.)

Iceland

HERRING FISHING CONTRACT DISPUTE SETTLED:

The Icelandic motorboat owners and the seamen approved an agreement which their representatives reached on the South Coast herring share-of-the-catch dispute. The settlement gives the seamen about $\frac{1}{2}$ percent more of the value of the herring catch than the separate Akranes agreement. The earlier agreement in Akranes gave the seamen more than was proposed by Icelandic Government mediators. (United States Embassy, Reykjavik, November 23, 1962.)

Iran

NEW COMPANY TO BE FORMED TO OPERATE IN PERSIAN GULF:

The formation of an Iranian corporation to exploit fisheries in the Persian Gulf has been approved by the Government-owned National Iranian Fisheries Company (Shilat-

Iran). The new company will be capitalized at 100 million rials (US$1.33 million) divided into 10,000 shares. Plans call for the capital to be raised through public subscription, with unsold shares to be purchased by the Government. (United States Embassy, Tehran, November 15, 1962.)

Notes: (1) Values converted at rate of 75.0 rials equal US$1.
(2) See Commercial Fisheries Review, September 1962 p. 80.

Italy

FROZEN TUNA IMPORT QUOTA:

The Italian Government, which set a duty-free import quota of 25,000 metric tons of frozen tuna for 1962, was reported to have decided to allow an additional 7,000 metric tons of frozen tuna to enter duty free into Italy in 1962 in response to a strong appeal made by the Italian National Association of the Fish Canning Industry (Assoconserve). It is said that Italy submitted a request to this effect to the EEC (Common Market) Secretariat. However, the 1963 Italian duty-free import quota is to remain at 25,000 metric tons, but due consideration is expected to be given to possible increases for that year, pending future developments.

Japanese exports of frozen tuna to Italy for the period January-November 1962 are said to exceed 30,000 metric tons. For that portion exceeding 25,000 metric tons, the Italian tuna industry is said to have submitted a guarantee to pay the 7.5 percent ad valorem import duty due on it, pending a decision by the EEC Secretariat on the Italian Government's request for an additional 7,000-ton duty-free import quota. (Suisan Tsushin, December 10, 1962.)

Ivory Coast

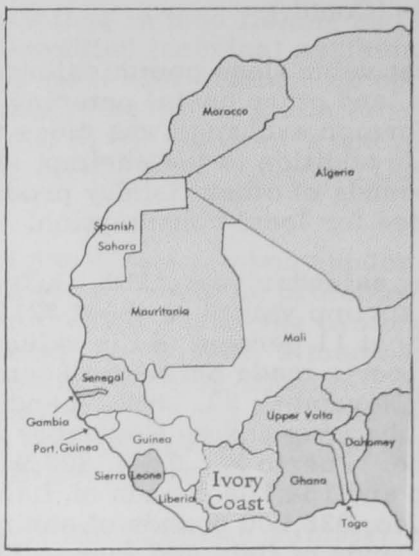
FISHING INDUSTRY EXPANDS:

The numerous activities of the Ivory Coast Fisheries Service, which was created in 1956, have helped develop the fishing industry. The Fisheries Service has trained 40 seamen and 7 master fishermen at its Training Center for local fishermen. The Training Center was opened in 1960.

Ivory Coast: Size of Fishing Fleet and Fishery Landings, 1955-1960

Year	Fishing Vessels	Fishery Landings
	Number of Vessels	Metric Tons
1960	53	29,000
1959	48	25,000
1958	34	25,000
1957	23	15,000
1956	20	9,000
1955	14	5,000

A sardine-tuna fishing vessel is being added to the Ivory Coast fishing fleet with the help of funds from the United States Agency for International Development. Sardine fishing is now the the most important activity of the Ivory Coast fishing fleet, but



tuna fishing is developing rapidly with the construction of refrigeration and canning plants. Several foreign firms have established tuna fishing bases in the Ivory Coast. (United States Embassy, Abidjan, September 26, 1962.)

Note: See Commercial Fisheries Review, August 1962 p. 66, May 1962 p. 52, December 1961 p. 72.

* * * * *

NEW FISHING PORT OFFERS INVESTMENT OPPORTUNITY:

As an integral part of a US$4.8 million project for the construction of a new fishing port, the Ivory Coast Government is planning the construction of a cold-storage plant. It seeks to attract private business investment to finance part of the approximately $3.0 million required for its construction. Several United States fish canners have shown an interest in this project. Investors interested in either the opportunity for participation in the cold-storage plant or the general potential of the fishing industry in Ivory Coast should contact John C. Elliott, Trade Advisor, Ivory Coast Resources Agency, 1270 Avenue of the Americas, New York, N. Y.

The project for construction of a modern fish port is under way: the first phase (involving the construction of a main pier 400 meters or 1,312 feet long, with necessary handling equipment, sorting and auction rooms, and installations for wholesalers) was scheduled to be completed before the end of 1962. The second phase, which will begin after completion of the main pier, will involve construction of the following facilities: (1) an outfitting wharf capable of holding heavy duty lifting and handling machinery;

Ivory Coast (Contd.):

(2) a light duty wharf where vessels can berth for supplies, provisions, fresh water, and carry out light repair and maintenance work; (3) a special dock for tuna fishing vessels; and (4) a network of roads and railroads to the various wharves and the cold-storage plant, which is to be located near the main landing pier.

Since 1957, landings of fishery products have increased from about 22,600 metric tons to 37,000 tons in 1960. The Ivory Coast fishing industry has outgrown its present fishing port facilities. The modern port and cold-storage plant will enable the industry to expand and able to handle landings, an estimated 63,000 tons by 1975.

The planned cold-storage plant will permit a more rational and regular distribution of fish, and will be a stimulus to the tuna fishing industry. (United States Embassy in Abidjan, December 14, 1962.)

Japan

ALBACORE TUNA PRICES IN FALL 1962 REMAINED FIRM:

The late July 1962 decline in frozen tuna prices in the United States resulted in a situation where Japanese-caught tuna were being almost wholly exported to Europe, where demand and prices were good, the Japanaese periodical Suisan Tsushin, of December 15, 1962, stated. Frozen albacore tuna for the United States market were said to be selling for $355 a short ton c.&f. in mid-December 1962, whereas they sold in Europe around $420 a metric ton c.&f. The difference in shipping costs between the two markets can be reduced by utilizing tramp steamers for shipments to Europe, states the periodical.

For awhile, following the decline in United States ex-vessel tuna prices, it was thought that ex-vessel albacore prices in Japan would fall below 110 yen per kilogram (US$277 a short ton). However, the brisk demand in Europe for albacore tuna is said to have stabilized the ex-vessel price for that species, which as of mid-December 1962 was reported to be selling for about 125 yen per kilogram ($315 a short ton). Reportedly, at that price, the Japanese canned tuna packers can still readily compete for the raw product.

* * * * *

FIRST WINTER ALBACORE LANDING:

The first landing of Japanese winter albacore was reported at the Japanese tuna port of Yaizu on December 24, 1962. A total of 40 metric tons were landed. The fish, ranging in size from 11-22 pounds, were taken over a two-day period (December 19-20) about 120 miles off Choshi, Chiba Prefecture. Reportedly, winter albacore are usually taken farther north off Kinkazan, Miyagi Prefecture, and their appearance farther south this year is considered somewhat unusual.

The medium and large albacore sold ex-vessel for 125-150 yen per kilogram (US$315-378 a short ton) and the small albacore 106-110 yen per kilogram ($267-277). About half of the 40 tons were sold to canners. (Suisan Keizai Shimbun, December 27, 1962.)

* * * * *

TUNA EX-VESSEL PRICES AT TOKYO:

The following ex-vessel prices were paid on December 10, 1962, for 390 metric tons of frozen tuna and other fish landed at the Tokyo Central Fish Market by two Japanese long-liners.

Table 1 - Tokyo Ex-Vessel Tuna Prices, December 10, 1962

Product	Price	
	Yen/Kg.	US$/Short Ton
Yellowfin (gilled & gutted):		
Extra lge., (over 120 lbs.)	110	277
Large (100-120 lbs.)	120-123	302-310
Medium (80-100 lbs.)	123	310
Small (20-80 lbs.)	120-123	302-310
Albacore	128	323
Fillets:		
Yellowfin	134.5-138	339-348
Big-eyed	138-141.3	348-356

The following ex-vessel prices were paid on December 25, 1962, for 240 metric tons of frozen tuna and other fish landed at the

Table 2 - Tokyo Ex-Vessel Tuna Prices, December 25, 1962

Product	Price	
	Yen/Kg.	US$/Short Ton
Yellowfin (gilled & gutted):		
Extra lge., (over 120 lbs.)	100	252
Large (100-120 lbs.)	106	267
Medium (80-100 lbs.)	106	267
Small (20-80 lbs.)	105	264
Albacore	128.6-131.5	324-332
Fillets:		
Yellowfin	118	297
Big-eyed	121	305

Japan (Contd.):

Tokyo Central Fish Market. (Suisan Keizai Shimbun, December 12 & 28, 1962, respectively.)

* * * * *

FROZEN TUNA MARKET FORECAST FOR EUROPE, 1963:

Japanese exports of frozen tuna to Europe for January-November 1962 totaled 43,195 metric tons, according to the Japanese periodical Suisan Tsushin, dated December 17. At that pace, 1962 Japanese frozen tuna exports to Europe were expected to total around 50,000 metric tons. This would represent an increase of 10,000 tons over 1961, when exports totaled 39,997 tons.

In 1963, Japanese frozen tuna exports to Europe are expected to increase further, possibly to 70,000 metric tons. This forecast is based on an anticipated increased demand for tuna in those European nations presently importing Japanese tuna, the opening of a new market in Spain following the removal of restrictions on Japanese exports of frozen tuna to that country, and on the likelihood that new markets may possibly develop in other countries, such as Belgium and the Netherlands.

The Japanese forecast of the 1963 European tuna market trends:

Italy: Japanese exports in 1960 totaled 22,000 tons; in 1961, 26,000 tons; and in 1962 will exceed 33,000 tons. Production facilities in Italy being expanded. Italian consumption of tuna increasing; market conditions relatively stable. Japanese 1963 exports of 37,000-40,000 metric tons fully within realm of possibility.

Yugoslavia: Japanese exports in 1961 totaled 9,400 tons. Declined somewhat in 1962 but expected to total around 8,000 tons. Canned tuna produced by Yugoslavia being exported to such countries as West Germany, where great market potential exists. Yugoslavia temporarily stopped purchasi .g frozen tuna from Japan but has again commenced buying, paying good prices. Exports in 1963 should range between 10,000-15,000 metric tons.

Czechoslovakia: Japanese exports in 1961 totaled 1,700 tons; in 1962 expected to total around 1,000 tons. Exports in 1963 expected to total from 1,000-1,500 tons, with emphasis on the exportation of lower-priced tuna, like big-eyed, which in December 1962 sold for $345 c.&f. Hamburg. Czechoslovakia said to be packing about half of tuna in cans and smoking remainder, but its canned tuna production expected to increase gradually.

France: The French Government, for the first time, issued an import license in 1962 authorizing importation of 3,500 tons of tuna, and expected to increase this amount in 1963 to 6,000 tons. Reportedly, the 1963 import license will be issued after May 1963 but may possibly be issued earlier. In terms of price, France is best market for Japanese frozen tuna. In this respect, great hopes held for France as market for Japanese-caught albacore.

Spain: Japanese exports to Las Palmas, Canary Islands, limited to 2,000 tons a year. Japanese exports to Spain proper limited to those originating from Japan proper, but no restrictions on amount. However, export regulations expected to be revised in 1963. Should transshipments to Spain proper be approved, exports to that country, including those to Las Palmas, expected to total 5,000 tons a year.

Tunisia, Libya, Ghana: Japanese exports to those African countries, which totaled 1,200 metric tons in 1961, increased to 1,700 tons in 1962, and expected to reach 2,000 tons in 1963.

In discussing 1963 frozen tuna trends, Suisan Tsushin further states that the four United States canneries located in Puerto Rico will be in full operation next year, and that for those four canneries and for the one United States tuna packing company located in Maryland, a total in the neighborhood of 100,000 short tons of raw tuna will be required. Reportedly, those five canneries will rely on United States and European fishing vessels to furnish as much of their raw tuna requirements as possible, but would have to depend on Japanese vessels to supply the greater portion of their needs.

Present production of tuna in the Atlantic Ocean is estimated at 80,000 metric tons by the periodical, which states that the Atlantic tuna production cannot possibly meet 1963 demand for tuna in the United States and in Europe, and adds that the shortage of raw tuna supply in 1963 will inevitably be greatly accelerated, if the decline in the Atlantic tuna catch should continue.

* * * * *

RESTRICTIONS ON INDIAN OCEAN TUNA TRANSSHIPMENT PORTS REMOVED:

The Japanese Fisheries Agency, which, heretofore, had restricted transshipments of Indian Ocean-caught tuna to the ports of Penang (Malaya) and Singapore, has liberalized its transshipment policy. Henceforth, catches made in the Indian Ocean can be landed or transshipped from any port bordering the Indian Ocean. (Suisan Keizai Shimbun, December 25, 1962.)

* * * * *

NEW TUNA VESSEL CONSTRUCTION:

At a press interview on December 25, 1962, the Japanese Fisheries Agency announced that it would permit the Japanese salmon fishermen engaged in the Japan Sea pink salmon fishery to construct a total of twelve 99-ton tuna vessels, but 15 salmon vessels must be retired from the salmon fishery for every 99-ton tuna vessel built. In addition, the Fisheries Agency, on December 27, reportedly was contemplating permitting the pink salmon fishermen to construct seven 85-ton trawlers, with ten salmon vessels to be retired for every trawler built, which would then mean that the present Japan Sea pink salmon fleet of 540 vessels would be reduced by 250 vessels to 290 vessels.

Also, at the December 25 press conference, the Fisheries Agency announced that it would permit eight 99-ton tuna vessels to be constructed under its policy of promoting the coastal fishery, and eleven 99-ton vessels to be constructed for assignment to the proposed Fiji Islands tuna base. The net effect of the Agency's action is that the new tuna vessel construction of 20,000 gross tons, which it authorized in August 1962, will be increased

Japan (Contd.):

by an additional 900 gross tons, or by the equivalent of nine 99-ton tuna vessels. (Suisan Keizai Shimbun, December 26 & 28, 1962.)

Editor's Note: Japanese tuna vessels between 40-99 gross tons are classified as medium-class tuna vessels. Those over 100 tons are classified as distant-water vessels. Both of those classes of vessels require fishing licenses, whereas tuna vessels under 39 gross tons do not. A press report January 1, 1963, indicated that in 1961, of a total of 1,300 tuna vessels over 40 tons gross, 409 vessels were in the 40-99 ton class. As for tuna vessels under 39 tons gross, a 1960 Government survey revealed that there were over 2,300 vessels in that category.

* * * * *

TUNA LANDINGS BY MOTHERSHIP FROM SOUTH PACIFIC AREA, 1950-1960:

Landings by the Japanese mothership fleets fishing for tuna in the South Pacific increased from 6,479 metric tons (about 14.3 million pounds) in 1950 (when two mothership were first licensed to fish that area) to 24,002 tons (about 53 million pounds) in 1960. The landings have varied due to the number of mothership fleets and catcher vessels, the availability of the various species of tuna and knowledge of tuna fishing grounds.

Japanese South Pacific Mothership Tuna Fishery Landings, 1950-1960

Species	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950
	(Metric Tons)										
Tuna:											
Skipjack	60	78	42	42	15	28	15	11	28	18	11
Bluefin	595	6,596	4	5	5	6	618	7	7	2	2
Albacore	7,971	5,555	4,096	3,126	3,690	4,906	3,555	291	72	124	44
Big-eyed	1,710	1,364	1,911	1,854	1,496	768	1,199	748	539	2,433	523
Yellowfin	8,588	2,920	4,657	5,154	2,021	2,921	3,886	4,347	4,017	4,926	3,726
Swordfish & related species:											
Striped marlin	761	755	806	394	1,049	1,117	1,064	4	15	4	1
Broadbill	247	281	199	112	210	168	115	19	23	23	11
Black marlin	1,333	699	879	1,510	816	1,318	1,498	1,272	654	2,302	1,488
White marlin	202	114	115	147	122	263	542	145	236	43	25
Sailfish	1,839	193	209	246	147	232	134	174	78	59	20
Sharks	314	1,813	1,226	1,375	1,307	1,538	1,347	1,095	1,000	1,154	605
Other	382	320	241	142	302	297	148	19	43	76	22
Total	24,002	20,688	14,385	14,107	11,180	13,562	14,121	8,132	6,712	11,164	6,479

* * * * *

TUNA VESSEL TO BE EQUIPPED WITH BRINE TANK:

A Japanese fishing company is having a 300-ton tuna fishing vessel constructed in Shimizu, Skizuoka Prefecture, but unlike most Japanese tuna vessels (which are equipped with air-blast freezers) this vessel will be equipped with a 250-ton capacity brine tank. The vessel, the Akashi Maru, is scheduled to be completed in late February 1963. The vessel will be sent to the Atlantic Ocean in April. (Suisan Tsushin, December 19, 1962.)

* * * * *

BOTTOMFISH FACTORYSHIP OPERATIONS IN BERING SEA, 1962:

In the 1962 season, Japan had 5 meal and 4 freezer factoryships in Bering Sea. Both were said to be unprofitable, and the meal vessels may not return to the Bering Sea for the summer of 1963.

Those for meal were mostly Antarctic whale ships of 8,000-14,000 gross tons, with a capacity of 500 metric tons of raw fish daily for reduction into meal and oil. The freezer capacity was 200 tons daily and the cold-storage capacity about 2,000-3,500 tons. Meal was transferred to supply vessels once or twice during the season, but frozen products were transferred every 10 or 15 days.

The five meal vessels were served by 10 or 12 pairs of trawlers and 4 or 5 single trawlers called "Hokkaido" boats. The pair trawlers were 100-150 gross tons with about 350 hp. engines. The Hokkaido trawlers were smaller, 60-80 tons, and underpowered with about 250-hp. engines. They took smaller catches.

The meal vessels received mostly flounders. Small flounders were frozen whole, larger sizes were dressed by removing heads and viscera before freezing. Plate freezers were used and frozen flounders were packed in 12-13-kilo (26.5-28.5 pounds) blocks. Since pair trawlers caught the most fish, the single trawlers did research for new grounds.

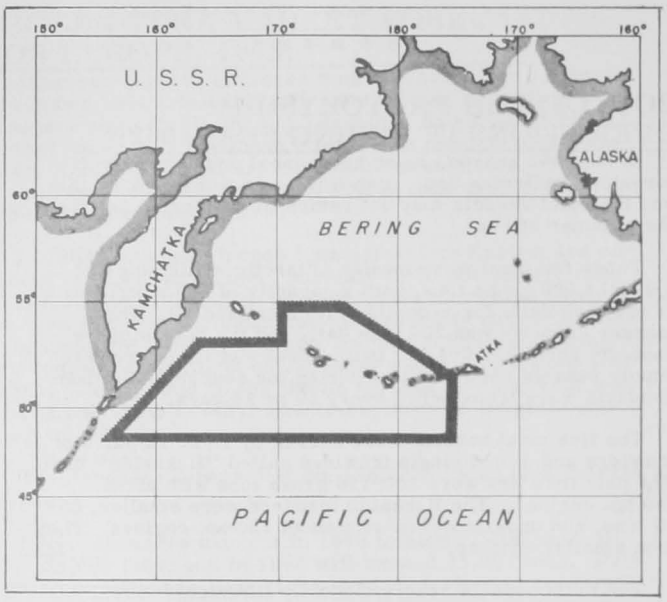
Formerly, 75 flounders of the smallest size filled a 13 kilo (28.5-pound) package. In the 1962 season it took 100-120, since the fish are getting smaller and thinner. Of four sizes of flounders, now only 10 percent of the catch was the largest size, while 30 percent was the smallest size. There were four kinds of flounders--yellow, golden, white, and asappa. Yellow flounders are cheapest and asappa are most expensive, but the latter made up only 2-3 percent of the catch. The white flounder grounds were found for the first time this year. Some "black halibut" or "oil flounder"--as designated by the Japanese--are caught and used for meal only.

Pair trawlers trawled out from the factoryship about two hours, after which one vessel took alongside the cod end. Then a new trawl was set and the vessels trawled back to the

Japan (Contd.):

ocean perch and poorest on flounders. Single trawlers had the opposite experience.

The production of one freezership was about 5,000 tons--divided as follows: 3,000 tons of flounders, 1,000 tons of shrimp, 500 tons of dressed fish, 300 tons of fillets of ocean perch, and 200 tons of miscellaneous fish.



The quota of the meal factoryships was about 100 tons of meal per day each. Their production was about 80 tons per day each. The four freezer factoryships (4,000-8,000 gross tons) were mostly Antarctic whale freezerships being used in the Bering Sea in the off-season. They could freeze 200 tons daily and had a cold-storage capacity of 4,500 tons. They transferred some frozen products to supply vessels during the 100-130 day season. The primary frozen products were shrimp and ocean perch. However, the cargo was completed with flounders, if necessary. The freezerships had 12 pairs of trawlers, which took 40-50 tons of shrimp or about the same amount of ocean perch daily. Some Alaskan pollock were taken with the ocean perch, but were discarded. The ocean perch season is early--in May and June on grounds north of Unimak Pass. Shrimp are caught in June and until July 15, northwest of the Pribilof Islands. In other areas they are caught all year round. The best quality shrimp are caught from May to August. After August they are spawning. Flounders were taken more toward Bristol Bay.

Most shrimp was frozen round, but some was beheaded by hand. Two or three freezerships had United States machinery for mechanically peeling shrimp. Ocean perch mostly were frozen dressed--heads off and gutted, using a German beheading machine. Two factoryships had German filleting machines. Single fillets were frozen skins on for export to the United States. In Japan the two single fillets were wrapped in cellophane for export to the United States. Fillets under $3\frac{1}{2}$ ounces were retained in Japan. The average size of the fillets for the United States was about $4\frac{1}{2}$ ounces each. The average 1.54-pound fish had a 38-percent yield and gave two fillets of about 4.7 ounces each.

The cod catch was small and kept mostly for the Japanese market. The head was removed and the fish slit down the back for a butterfly cod fillet. Some cod were machine filleted and frozen for the United States market, but quality and worms gave trouble.

Alaska pollock were used only for meal. They were discarded if taken on freezer vessels. Some long-liners with special licenses took halibut and sablefish west of Abstention Line and froze their catches. Some ocean perch had parasites and some cod had worms. Both were giving trouble in exports to the United States. Pair trawlers did best on shrimp and factoryship and hauled in the second cod end. The factoryship took the two cod ends aboard by crane. The round trip took about five hours. The catch of flounders varied from 2-25 metric tons. Single trawlers usually delivered once at night--possibly 5 to 10 tons. If fishing was good, they delivered twice daily.

* * * * *

GOVERNMENT TO FINANCE SHRIMP BASE IN NORTH BORNEO:

The Japanese Overseas Economic Cooperative Fund (established by the Japanese Government in February 1960 with a capital of 5.2 billion yen--US$14.4 million--to promote development of Japanese enterprises in Southeast Asia) is reported to have decided to loan 30 million yen ($83,333) to a North Borneo fishery company. According to press reports, the company is a cooperative shrimp enterprise to be established in Sandakan, North Borneo, with Japan contributing 48 percent to the total capital of 70 million yen ($194,000) and North Borneo 52 percent. Two Japanese firms are participating in the venture.

The North Borneo company is expected to commence operations by April 1963. (Suisan Keizai Shimbun, December 28, 1962.)

* * * * *

TESTS WITH POWER BLOCK ENCOURAGING:

From August-October 1962, a Japanese fishing company conducted experiments testing the efficiency of a United States-made power block in purse-seine fishing operations off northern Japan.

The Kenyo Maru (242 gross tons) operating from its base at Shiogama Harbor, was used in the test operations. The vessel was originally built for purse seining, but remodeled later for tuna long-line fishing and operated in that fishery for several years. In 1962 it was reconverted for purse-seine fishing at a cost of about 23.0 million yen (about US$64,000). The vessel was equipped with a power block, a topping winch, a vanging winch, a double hydraulic pump, and a remote control panel. The power block was fitted to a five-ton rolling boom nine meters (29.5 feet) high. All equipment was purchased from a United States company.

The vessel fished for 65 days on the Pacific Ocean side of Honshu Island during the three-month test period and make 38 seine sets which yielded a catch of 143.1 metric tons of fish, valued at about 9.9 million yen (US$27,500).

Japan (Contd.):

In conventional-type fishing, the Kenyo Maru would ordinarily carry 28 or more crew members to handle all equipment and fishing gear. By installation of the power block it was found that about 20 men could perform the same task. The number of men handling the net was reduced from 12 to 7, with two men each on the cork and lead lines, and three men handling the web. Compared with conventional methods of lifting the seine, the time was reduced one hour by use of the power block. There was no slippage of the net in the block during lifting operations which is a common occurrence with conventional equipment.

On several occasions the webbing parted during lifting operations. The Japanese fishing company states that studies are required to determine whether this was caused by: (1) lack of teamwork in handling the cork and the lead lines; (2) uneveness of lifting the net by the power block or; (3) whether the breaks were caused by loss in tensile strength of the webbing after water shrinkage.

Discounting those problems and the small catch, it is reported that the firm considers the trial test of the power block most satisfactory. (Fisheries Attache, United States Embassy, Tokyo, November 12, 1962.)

Note: See Commercial Fisheries Review, November 1962 p. 74.

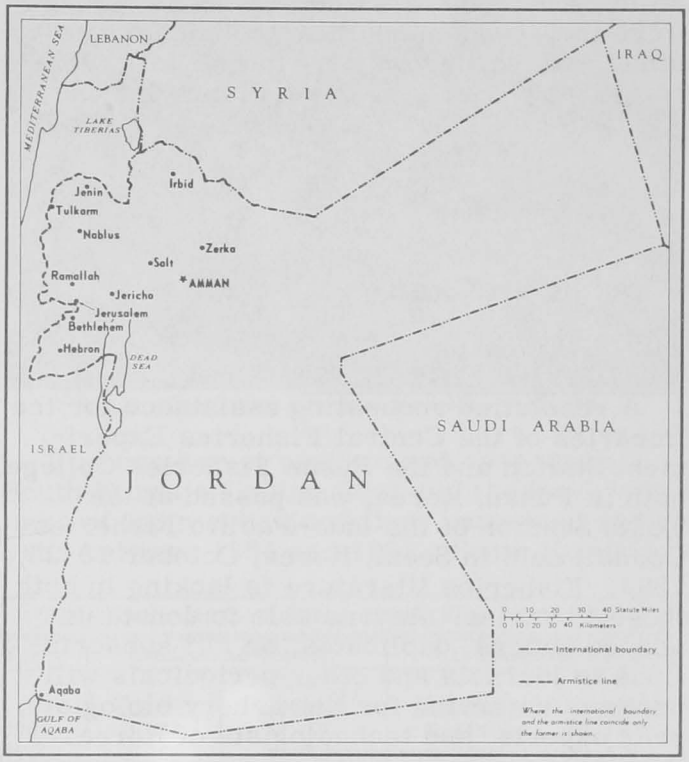
Jordan

INCREASE IN LANDINGS OF FISH EXPECTED:

The commercial fish catch by Jordan has increased from about 99 metric tons in 1957 to 138 tons in 1961.

The Jordan Fisheries Company presently makes almost all of the purchases of fish from fishermen at Aqaba and distributes the fish through its storage space in Aqaba and its one wholesale distributing center in Amman to about 20 fish distributors throughout Jordan. The company is capitalized at Dinar 100,000 (US$280,000), of which the Government share is Dinar 15,757 (US$44,000). The company has made only marginal profits or incurred losses since its establishment in 1955, except in 1961 when for the first time an 8-percent dividend was declared.

The Fisheries Company officials hope to expand production within the next few years to about 600 tons by 1967. The Company owns refrigerated space in Aqaba with a capacity of about 250 tons, of which three quarters is rented out to importers of meat, cheese, and other perishable foodstuffs. Expansion of the refrigerated space devoted to fish could thus easily accommodate the expected increased fish catch.



Two developments are favoring the trend toward increasing Jordan's catch of fish. The Government early in July 1962 issued a temporary ban on fresh fish imports. Imports of fresh fish during 1961 amounted to 554 tons while domestic production was only 138 tons. Since the domestic catch can not hope to match the domestic consumption needs at present, this ban will probably have to be modified soon, according to company officials, in favor of a system to grant import licenses to fish distributors in proportion to their purchases of local fish. The reported agreement with Saudi Arabia to allow Jordanian fishermen to fish in Saudi territorial waters is significant, if implemented, since the area farther down in the Gulf of Aqaba and in the Red Sea is reputed to be rich in fish. There has been a proposal for Germany to supply one to three modern fishing vessels to fish those rich areas, but the proposal is believed to be still in an embryonic stage.

Company officials point to a marketing obstacle which will have to be overcome if fish

Jordan (Contd.):

sales are to be substantially increased. The fish caught near Aqaba generally weigh at least 3 kilograms (about 6.6 pounds). Many fish consumers can afford to buy only small whole fish, and are used to buying whole fish so that offers of fillets or parts of fish are often unacceptable. Company officials believe that good marketing techniques combined with selling only fresh fish will overcome that obstacle. (United States Embassy, Amman, November 12, 1962.)

Republic of Korea

FISHERIES LITERATURE NEEDED BY LIBRARIES:

A resolution requesting assistance for the libraries of the Central Fisheries Experiment Station and the Pusan Fisheries College, both in Pusan, Korea, was passed at the Tenth Session of the Indo-Pacific Fisheries Council held in Seoul, Korea, October 10-25, 1962. Fisheries literature is lacking in both those libraries. Anyone able to donate unneeded papers, duplicates, or gift subscriptions to journals and other periodicals will perform a service for the fishery biologists, gear experts, and technologists of Korea.

Note: Material can be sent direct to the libraries; or appropriately marked material will be forwarded to Korea if sent to the U. S. Bureau of Commercial Fisheries Biological Laboratory, P. O. Box 3830, Honolulu 12, Hawaii.

* * * * *

DEVELOPMENT OF FROZEN SHRIMP EXPORT INDUSTRY:

Korea's frozen shrimp exports were expected to earn US$1.5 million in foreign exchange in 1962, with double that amount anticipated in 1963. The development of Korea's frozen shrimp export industry is an example of teamwork in technical assistance.

In 1956, a United States Operations Mission under the United States foreign aid program established a fisheries program in Korea. At that time there was no knowledge of a commercial shrimp resource in Korean waters. Several individuals had tried without success to prepare frozen shrimp for export using raw material taken incidentally to other fisheries.

The catching of shrimp with other fish suggested concentrations of shrimp large enough to support a fishery. Gulf of Mexico shrimp trawl nets were brought to Korea for exploratory work. A vessel belonging to the Korean Government's Central Fisheries Experiment Station in Pusan was equipped to operate otter-trawl gear. The vessel's crew was trained in the use of the gear and a program of exploratory fishing for shrimp was begun under the supervision of the United States Fishery Operations Advisor. When the early work strongly indicated the presence of shrimp in commercial quantities, the exploratory effort was speeded up by using several commercial fishing vessels owned by interested fishermen.

The processing and marketing of Korean frozen shrimp was begun under the guidance of the United States Processing and Marketing Advisor. With the help of United States development funds, a demonstration shrimp-processing plant was set up at the Korean Fisheries Experiment Station. Regulations setting up quality standards for frozen shrimp (as well as processing plant standards) were prepared. The assistance of the United States Eighth Army Veterinary Corps was obtained in evaluating the product and the facility and certifying both as meeting military procurement requirements. Personnel of the Korean fishery products inspection service were given training to qualify them to enforce the new shrimp quality standards. The demonstration shrimp plant was then made available to the Korean fishing industry and used to train supervisory and operating personnel.

Korean frozen shrimp was first sold to the United States Army near the end of 1958. Because of the limited production capacity of the pioneer vessels and the experience that would be gained by processing under the United States Army Veterinary Corps inspection, those wishing to enter the new industry were encouraged to qualify as shrimp processors for the United States Army before attempting to negotiate with foreign buyers.

By mid-1960, the quality of Korean shrimp and the ability of Korean processors to prepare a highly acceptable product had been sufficiently demonstrated to arouse the interest of foreign traders doing import-export business in Korea. Trial shipments were again undertaken and favorable acceptance abroad led to a steadily increasing demand. The number of vessels licensed to operate shrimp

Republic of Korea (Contd.):

trawl gear along the eastern coast of Korea has been increased to 25 and the catching of shrimp by traditional gear is also increasing. There now are eight Korean processing plants qualified to prepare frozen shrimp for export. The eight plants have created at least 1,500 new jobs principally for young women who are required in the preparing and packing operations.

The processors involved and the industry in general have become aware of the export potential of fishery products and are working to develop other items for export. The value of exports of marine products during 1962 is expected to approach $10 million as compared to less than $3 million in 1956. (United States Embassy, Seoul, January 7, 1963.)

* * * * *

LANDINGS OF MARINE PRODUCTS, 1951-1961, AND SIZE OF FISHING FLEET, 1954-1961:

South Korea's landings of marine products in 1961 were 28.7 percent above those in 1960 and 64.2 percent above landings in 1951. Shellfish landings showed a marked increase in 1961.

Table 1 - South Korean Landings of Marine Products, 1951-1961

Year	Fish	Shellfish	Seaweed	Other	Total
	(Metric Tons)				
1961	245,419	43,199	36,989	109,011	434,618
1960	237,226	13,481	27,437	59,640	337,784
1959	266,181	12,661	29,683	73,601	382,126
1958	291,191	15,884	28,759	59,359	395,193
1957	279,767	12,187	34,797	76,406	403,157
1956	257,515	9,778	24,423	49,200	340,916
1955	190,424	6,799	20,019	41,992	259,234
1954	188,941	10,455	17,253	32,887	249,536
1953	185,185	8,433	17,516	46,902	258,036
1952	208,123	9,557	13,199	46,739	277,618
1951	187,474	9,211	19,320	48,632	264,637

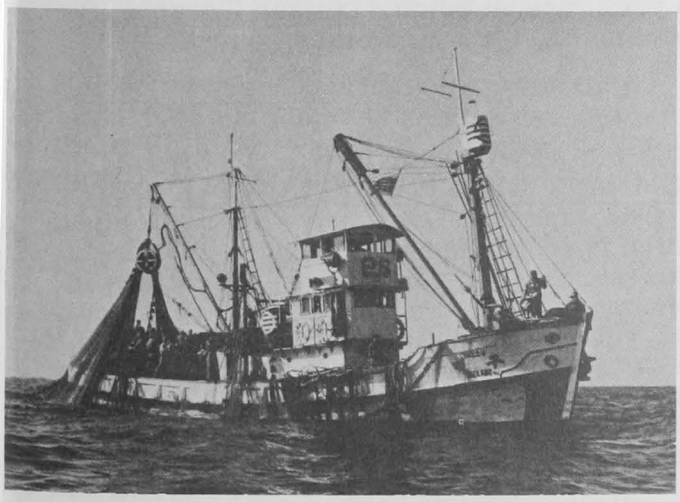


Fig. 1 - A Korean mackerel seiner equipped with a power block for hauling in the net.

Fig. 2 - Large seine nets used for mackerel fishing.

The number of mechanized vessels in South Korea's fishing fleet and the total tonnage of the mechanized fleet increased each year between 1954 and 1961. South Korea's sail-powered fishing fleet was cut back sharply in 1955, but in recent years the sail fleet has shown a small increase in both number of vessels and total tonnage. (Monthy Economic Review, Korean Reconstruction Bank, July 1962.)

Table 2 - Size of South Korean Fishing Fleet, 1954-1961

Year	Mechanized Vessels		Sail-Powered Vessels	
	Number	Total Tonnage[1/]	Number	Total Tonnage[1/]
1961	6,803	89,620	2,114	23,257
1960	5,966	80,927	2,036	22,420
1959	5,394	73,074	1,915	21,573
1958	5,050	68,116	1,717	20,913
1957	4,389	58,117	1,694	21,394
1956	4,126	54,185	1,686	21,508
1955	3,804	50,004	1,605	20,472
1954	3,667	47,637	2,676	32,689

1/Metric tons.

* * * * *

PRODUCTION STATUS OF NEW AGAR-AGAR PLANTS:

The construction of a new agar-agar plant in Pusan was approved under the former U.S. International Cooperation Agency (now Agency for International Development or AID) on February 9, 1956, for US$335,000 plus the use of $906,992 of counterpart funds (for industrial machinery and motors including extraction tanks, ice-making machinery, pumps, etc.).

Republic of Korea (Contd.):

The objectives of the plant were the production of one million pounds of chemically pure agar-agar annually, with a minimum value of about $1.50 a pound in the export market; 2 million pounds of high-strength seaweed gelatin; and to aid the economy of Korea. As of June 30, 1962, the buildings were 95 percent completed and equipment 100 percent installed, with completion scheduled in September 1962. Initial operations were withheld pending the installation of additional equipment provided under a fiscal year 1957 project. This project was beset by various problems which resulted in the establishment of a subproject involving an additional US$120,000 plus counterpart funds of $97,492 (Typhoon Relief Fund), and $269,230 (Utilization Loan).

The additional equipment, purchased in April 1960, was delivered by February 1961 and at the end of June 1962, 20 percent had been installed. The remaining 80 percent has been released from customs and was being warehoused at the plant site in Pusan.

This Pusan plant as of August 1962 was being intermittently operated with the equipment already installed, producing about 5 metric tons of crude agar-agar paste per day. Approximately 110,000 pounds of crude agar-agar paste valued at about $60,000 has been exported to Hong Kong.

The more than usual delays encountered have been due to the sponsor's desire to establish a truly modern production facility based on Japanese patents and equipment from a licensed manufacturer. The remaining problem was that of technical advice to be given by a Japanese engineer expected in August 1962 to supervise the installation of equipment and later the trial operation.

Another new agar-agar plant at Suchon designed to produce 200,000 pounds of agar-agar annually was scheduled to be in operation in September 1962 but financing troubles were expected to delay the opening of that plant.

A third modern agar-agar plant located in Pusan, scheduled to produce 240,000 pounds a year of gelatinous agar-agar has been in operation and was expected to have export earnings of $450,000 in 1962. The sponsors of this plant also have plants in Mokpo and Ulsan. (United States Embassy, Seoul, August 31, 1962.)

Malaya

CANNED TUNA IN BRINE EXPORTS TO U. S.:

The Malayan Marine Industries (a tuna packing company located in Penang and jointly operated by Japanese and Malayan interests) started packing tuna in brine in late 1962 and is reported to have exported a small quantity of its product to the United States. Pending a report on the acceptability of this trial shipment, the company plans to fix a price on future exports to the United States.

M/V Shoyo Maru, a research vessel of the Japanese Fisheries Agency visited Penang early in 1962 before going on to search for tuna near Mauritius.

The Malayan plant initially began operations in February 1960, packing canned tuna in oil for the European market. In December 1961, the Japanese Government allotted to that company a production quota of 36,000 cases of tuna in brine for export to the United States, but it was not until November 1962, according to press reports, that the plant began to pack tuna in brine. (Suisan Tsushin, December 25, 1962, and other sources.)

* * * * *

JOINT MALAYAN-JAPANESE TUNA COMPANY RECEIVES FINANCIAL AID:

The Japanese Overseas Fishing Company which operates the joint Japanese-Malayan tuna packing company (began operations in Penang, Malaya, February 1960) reportedly will receive financial assistance from the National Federation of Japanese Tuna Fishery Cooperative Associations (NIKKATSUREN). The cooperative, at its director's meeting held on December 5-6, 1962, voted to secure a loan from the Agriculture and Forestry Central Cooperative Bank, which it would advance

Malaya (Contd.):

to the Overseas Fishing Company to provide a continuous operating fund (to be used for purchase of tuna landed at Penang) of 300 million yen (US$833,000) per month for its Malayan enterprise.

The Malayan enterprise hopes to purchase, on an average, 1,900 short tons of tuna each month from five clipper vessels and 16 ice boats that are expected to unload their catches at Penang. Of that amount, the company plans to ship approximately 800 tons back to Japan. A 1,000-ton-capacity cold-storage plant and a cannery with a daily production capacity of 500 cases of canned tuna are being constructed at Penang for the Malayan firm, according to Suisan Tsushin, December 8, 1962.)

Editor's Note: The Malayan joint firm originally was authorized to pack only canned tuna in oil for export to Europe. In December 1961, the Japanese Fisheries Agency authorized that company to annually export to the United States 36,000 cases of canned tuna in brine. However, due to the unprofitable nature of the operation, the Malayan cannery temporarily suspended packing tuna in brine until November 1962. In April 1962, the Fisheries Agency authorized the Overseas Company to land 6,000 short tons of fresh tuna at Penang for freezing and transshipment to the United States. At the same time, the Agency designated both Penang and Singapore as transshipment ports and authorized a combined frozen tuna transshipment quota of 4,000 tons for those two ports.

Mexico

DIRECT TAXES ON FROZEN SHRIMP EXPORTS:

The present Mexican Federal and Municipal direct taxes on frozen shrimp exports result in approximately the following charges:

From all east coast points and the west coast points of Salina Cruz in Oaxaca and Santa Rosalia in Baja California:

	U.S. Cents Per Lb.
Federal taxes:	
Export, specific	0.09
Export, ad valorem . .	3.32
Severance	1.11
Municipal tax	0.07
Total Federal and Municipal taxes . .	4.59

From other Mexican west coast points the Federal export ad valorem tax is about 3.55 U.S. cents per pound and other taxes are the same as shown above, resulting in a total tax of about 4.82 U.S. cents per pound.

The Mexican State of Campeche levies a separate and additional tax on shrimp exports of 2.21 U.S. cents per pound, so combined Mexican taxes on frozen shrimp exports from that State amount to about 6.80 U.S. cents per pound. (United States Embassy, Mexico City, December 20, 1962.)

Note: In computing approximate tax rates, the following factors were used: 12.50 Mexican pesos equal US$1; one metric ton equals 2,200 pounds.

* * * * *

SOVIET FISHING VESSELS ATTACHED TO THE CUBAN FLEET ENTER MEXICAN PORT FOR SUPPLIES:

Early in December 1962 two Soviet fishing vessels, the Obdorski and the Omar, both displacing slightly over 500 tons and both attached to the Cuban fishing fleet (Flota de Cuba), arrived at the Mexican port of Veracruz after requesting permission to enter the port to obtain water and food. Russian crew members of the two vessels said they had no idea why the vessels came to Mexico instead of Havana, which was their destina-

Mexico (Contd.):

tion. The vessels remained in port for several days and then proceeded out to sea again.

A conservative daily newspaper carried an editorial commenting on this evidence of Soviet participation in the Cuban fishing fleet and expressing concern that the Soviet fishermen, with their more advanced fishing techniques, could contribute to the loss to Mexico of the great wealth represented by marine life in Mexican waters. (United States Embassy, Mexico City, December 12, 1962.)

Morocco

EXPORTS OF SARDINES TO FRANCE MAY BE RESTRICTED:

A French commercial delegation came to Morocco on December 3, 1962, to discuss the status of certain French quotas (including sardines) which apply to Moroccan exports to France. The French delegation included officials of the Ministry of Finance, the Ministry of Agriculture, the Merchant Marine, and representatives from the French Embassy at Rabat.

According to the press, France during the summer months will restrict or stop, if necessary, Moroccan exports of sardines if the sardine catch in France is a good one. This agreement was made apparently to avoid any incident such as occurred during the summer of 1962 when the French sardine fishermen actively intervened to block imports of sardines from Morocco. (United States Embassy, Rabat, December 14, 1962.)

Nicaragua

FISHING LICENSES GRANTED TWO CARIBBEAN COAST COMPANIES:

The Government of Nicaragua has granted fishing licenses to two firms to operate commercial fishing enterprises from Caribbean coastal ports.

A commercial fishing license was granted to one Nicaraguan firm to fish for shrimp, spiny lobster, crab, oysters, clams, mackerel, tuna, sardines, corbina, and miscellaneous fish for bait. Specifically excluded are turtles. The license is granted for 10 years on condition that the firm comply with the various regulations set forth in the General Law on the Exploitation of Natural Resources and the Special Law on the Exploitation of Fish and Shellfish. The firm is required to begin operation of its plant in Puerto Cabezas within 90 days of the date of the decree (Decree No. 15-DRN, published in La Gaceta No. 216 of September 22, 1962). The firm's production is expected to be primarily for export.

A second license was granted to another firm for five years to fish for all types of fish and shellfish except turtles. Compliance with the two laws and regulations mentioned above is required. The firm was given 45 days from the date of the decree (Decree No. 17-DRN, published in La Gaceta No. 264 of November 19, 1962) to get the plant on Corn Island into operation. This plant will also produce for export and it is expected to concentrate on the spiny lobster fishery.

Norway

EXPORTS OF CANNED FISH, JANUARY 1-SEPTEMBER 22, 1962:

Norway's total exports of canned fish during the period January 1-September 22, 1962, were 19.8 percent greater than in the same period of 1961. All of Norway's important canned fish products, except soft herring roe and shellfish, were exported in greater quantity in 1962. Exports of

Norway (Contd.):

canned smoked brisling were up 39.8 percent and exports of canned smoked small sild were up 24.2 percent.

Norwegian Exports of Canned Fish, January 1-September 22, 1962 1/

Product	1962	1961
	. . (Metric Tons) . .	
Smoked brisling	4,419	3,160
Smoked small sild	10,255	8,258
Kippered herring	3,143	2,673
Soft herring roe	682	709
Sild delicatessen	355	218
Other canned fish	2,397	2,496
Shellfish	1,359	1,364
Total	22,610	18,878

1/Preliminary.

During January-August 1962, Norway's total exports of canned fish showed an increase of 17.3 percent in quantity and 21.9 percent in value over exports in the same period of 1961, due mainly to an increase in exports to the United States and the United Kingdom. There was a sharp decline in exports to South Africa.

Norway's Total Exports of Canned Fish, January-August 1961-62 1/

Year	Quantity	Value	
	Metric Tons	Million N. Kr.	Million US$
1962	19,786	100.2	14.0
1961	16,863	82.2	11.5

1/Preliminary.

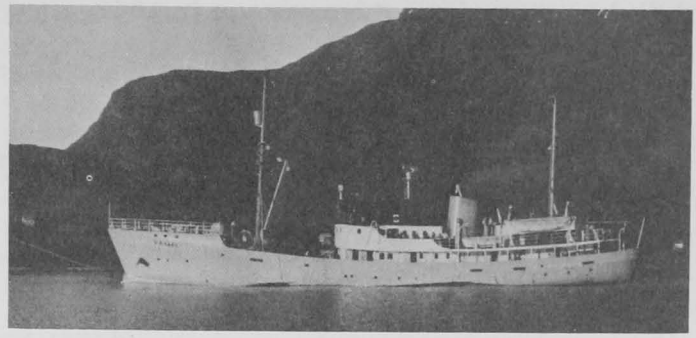
The United States was the leading buyer of Norwegian canned fish during January-August 1962, taking 46.1 percent of total exports or 9,122 metric tons valued at N. kroner 46.8 million (US$6.5 million) as compared with 6,677 tons valued at N. kroner 35.6 million (US$5.0 million) during the same period of 1961. Other important markets for Norwegian canned fish in 1962 were the United Kingdom, Australia, Canada, East Germany, and South Africa.

At the end of the brisling canning season on October 15, 1962, the brisling pack equaled 414,818 standard cases (100 3 3/4-oz. cans), as compared with the 1961 pack of 424,577 standard cases. The small sild pack between May 1-October 20, 1962, amounted to 391,956 cases, as compared with 394,248 cases in the corresponding season in 1961. Canners were disappointed by the catch and supply of small sardines for sild packing in the fall of 1962. The supply of mackerel for canning up to October 13, 1962, was reported as 2,062 tons as compared with 606 tons in the same period of 1961. As usual there was some canning of crab and shrimp in the fall of 1962, but pack data are not yet available (Norwegian Canners Export Journal, November 1962).

* * * * *

FISHERIES RESEARCH VESSEL EXPLORES WATERS OFF WEST GREENLAND:

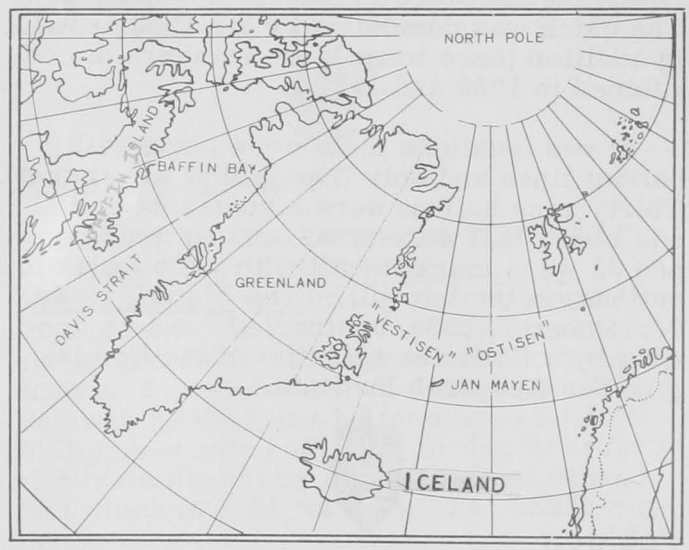
In April and May of 1962, the Norwegian research vessel G. O. Sars made a cruise (April 9-May 16, 1962) off the coast of western Greenland to study cod and halibut. The results of that cruise are to be compared with a similar trip made in April 1959.



Norwegian research vessel G. O. Sars.

The investigation itself began at Noname Bank on April 19 and ended off Vestmannaeyar, Iceland, on May 13.

Off Iceland, the research vessel took part in an international sampling project with trawls, started on the initiative of the International Council for the Exploration of the Sea (ICES).



The ice conditions off western Greenland were mainly normal. Broken ice and occasionally pack ice were encountered over the entire Julianehaps Bay and Nanortalik Banks so it was not possible to fish there at the start of the season. At the Holsteinsborg Deep, some drift ice was encountered but it did not hinder fishing.

Hydrographic and fishing stations were occupied off Greenland's west coast in the general areas of Noname Bank, Fylla Banks, and Sukkertoppen. The surface water temperature was somewhat lower than at the

Norway (Contd.):

same time in 1961, in the intermediate and lower depths about the same as in 1961.

The relatively low temperature of the surface water was probably not the result of a stronger flow of arctic water, but apparently the direct result of ice and the stable weather conditions.

Ten fishing stations were made with cod lines and the catch of cod was consistently over average.

In the Holsteinborg Deep and along the western edge of the Little Hellefisk Bank, cod fishing was very good and samples were taken of 1,174 cod. In addition, 1,796 were measured.

The size varied somewhat between the different catches, but the majority were suitable for salting.

All the cod were in excellent condition. The catch was dominated by the 1953 brood. In addition there were large numbers of cod hatched in 1956 and 1957.

At two locations tests were made with halibut lines and only five halibut were caught. Thirty-nine halibut were also caught on the cod lines. All were small and not mature and 32 were marked--all with yellow plastic buttons, in the left gill. (The Fishing News, September 7, 1962, abstracted from an article by a fisheries scientist of the Norwegian Sea Research Institute.)

Pakistan

FISH HARBOR ON BAY OF BENGAL TO BE BUILT:

Construction of a fish harbor on the Bay of Bengal will be started by the Government of Pakistan sometime after July 1963. The harbor, costing Rs.106 million (US$22 million) will be located at Chaktai, a small town on the Karnaphuli River near Chittagong. The development of what seem to be rich fisheries in the Bay of Bengal should be greatly aided by a modern fish harbor. Private capital in Pakistan has shown an interest in buying the mechanized vessels and modern gear needed to make the new harbor

worthwhile. (United States Embassy, Karachi, January 5, 1963.)

In 1962, both the Government of Pakistan and private fishery firms in Pakistan invited United States firms and investors to participate in various joint United States-Pakistani commercial fishing ventures.

Peru

FISH MEAL MARKETING PROCEDURES:

The Consorcio Pesquero del Peru S. A., was not given legal control over all Peruvian fish meal exports by Peruvian Decree-Law No. 14228, as was previously indicated. Decree-Law No. 14228 was advisory rather than mandatory in character, according to the latest report on its interpretation.

The Consorcio Pesquero del Peru S.A., (Fisheries Consortium of Peru) is the marketing agency for a large percentage of Peru's fish meal production. The marketing system described in Decree-Law No. 14228 would give the Consortium complete control over all Peruvian fish meal exports if adopted, but opposition may prevent its adoption.

It has been reported that the Consortium is naming sole importers in Belgium, in the Netherlands, and in West Germany to receive Consortium fish meal shipments to those countries. It is not clear at present how the Consortium plans to handle sales to the United States. One report indicates that the Consortium will name less than seven importers

Peru (Contd.):

in the United States. (United States Embassy, Lima, December 10, 1962.)

Note: See Commercial Fisheries Review, December 1962 p. 83.

* * * * *

FISHERIES TRENDS, THIRD QUARTER 1962:

Peruvian fish meal exports in January-September 1962 amounted to 802,000 metric tons, up 46.3 percent from exports of 548,158 tons in the same period of 1961, and 94,000 tons more than were exported in the entire year 1961. Peruvian fish meal production in the first nine months of 1962 amounted to 727,285 tons, according to preliminary data from the International Association of Fish Meal Manufacturers. A representative of the Peruvian fish meal industry estimated that fish meal production in Peru had increased 37 percent in the 12-month period ending August 31, 1962. He thought that the industry would grow at the same rate for another 12 months, after which production would level off.

Callao--one of Peru's principal fishing ports.

Peruvian fish oil exports in 1962 were expected to reach 125,000 metric tons, which would be an increase of 22.1 percent over exports of 102,306 tons in 1961. A value of US$11.3 million is forecast for the estimated 1962 fish oil exports, which would be an increase of only 4.6 percent over the $10.8 million received for 1961 fish oil exports. The price of Peruvian fish oil for export, which averaged $106 per ton (4.8 U. S. cents a pound) in 1961, is expected to average only $90 per ton (4.1 cents a pound) in 1962.

It appeared that the value of Peru's exports of all fishery products in 1962 will reach $127 million, which would be nearly $56 million more than the total value of fishery exports in 1961. Greater exports of fish meal at better prices are the main reason for the estimated increase in value. The profitable fish meal industry has attracted great interest on the part of investors and created a demand for new plants. New simplified procedures for the issuance of licenses for fish meal plants were established by the Government in August (Supreme Decree No. 11 published in El Peruana, Aug. 29, 1962). In the past it usually took several months to obtain a license even under the best of conditions, but under the new system licenses may be issued within a week after application. The average cost of installing and starting a fish meal plant in Peru was estimated recently at $1 million. The fishing industry appears to have been a major contributor to the Peruvian economy in the third quarter of 1962. Sales of machinery and equipment to the fishing industry expanded when most other sales dropped off. (United States Embassy, Lima, November 9, 1962.)

Philippine Republic

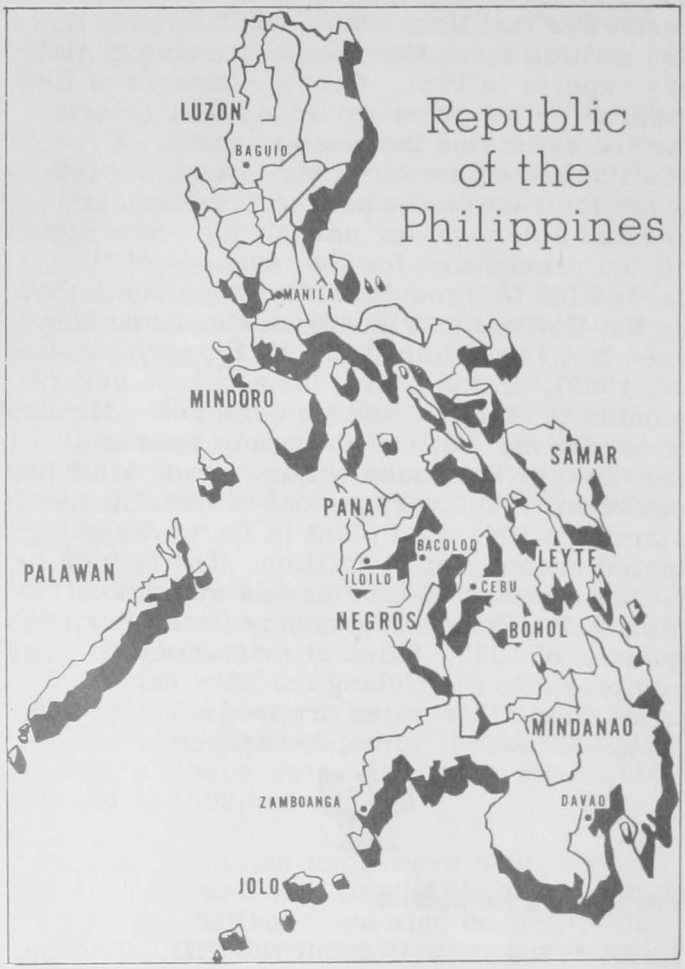
IMPROVEMENT OF FISHING INDUSTRY STRESSED BY PRESIDENT:

For the second time in recent weeks the President of the Philippines has stressed his determination to improve the fishing industry. In a December 6, 1962, speech in Palawan he said that he intends to make the Philippines self-sufficient in fish in order to eliminate the costly importation of canned fish which in 1961 was valued at US$16 million.

The Emergency Employment Administrator has announced a P15 million (about US$3.9 million at free rate of exchange) fishery development project beginning December 14, 1962. The project will establish a network of 16 fishing ports, refrigeration stations, fish farms and nurseries in appropriate coastal provinces. Also on December 14, the President was scheduled to turn over Pier 14 in the Manila North Harbor area for the exclusive use of the fishing industry.

In other fishing developments, the Fisheries Director stated that a Norwegian expert was scheduled to arrive in January 1963

Philippine Republic (Contd.):



on loan from the United Nations Foods and Agriculture Organization (FAO) to assist in the development of a purse-seine fishery. He also said that a deep-sea fishing institute, a joint project of the Philippine Government and the FAO, would be opened by mid-1963.

* * * * *

U. S. FRESHWATER FISH BIOLOGIST ACCEPTS FAO ASSIGNMENT:

A fresh-water fish biologist from the United States (Smithville, Tenn.) has been assigned to a technical assistance project in the Philippines by the Food and Agriculture Organization. The appointment is for 12 months.

The biologist, who was due to arrive in Manila on November 28, 1962, will assist the Philippine Government in operating the Freshwater Fisheries Investigations Unit, especially on work being done at Laguna de Bay. He will also advise the Government on the best ways of carrying out inland fishery surveys and research.

Until his present FAO assignment, he was a fisheries research biologist with the U. S. Fish and Wildlife Service at Stuttgart, Ark. He also has acted as district biologist for the Tennessee Game and Fish Commission and as a fisheries management biologist with the U. S. Fish and Wildlife Service at Atlanta, Ga.

Poland

LANDINGS OF MARINE PRODUCTS AND SIZE OF FISHING FLEET, 1961:

In 1961, Poland's fleet of sea fishing vessels gained 1 factory trawler, 2 trawlers, and 6 cutters, but there was a decline in the number of vessels classified as "luggers and trawlers." The gross registered tonnage of the fishing fleet in 1961 was 4.7 percent greater than in 1960.

Table 1 - Poland's Fleet of Fishing Vessels, 1950, 1955, and 1960-1961

Type of Vessel	1961	1960	1955	1950
	(Number of Vessels)			
Factory trawlers	2	1	-	-
Super trawlers	53	53	8	-
Trawlers	15	13	20	24
Luggers and trawlers	46	50	34	-
Luggers	3	3	3	3
Cutters	538	532	397	338
Auxiliary vessels	3	3	2	-
Total	660	655	464	365
Total Gross Registered Tons	91,700	87,600	43,200	18,200

Marine landings by Poland's fishing fleet in 1961 were only about one percent greater than in 1960. An increase in landings of sprats and unclassified fish was almost offset by a decline in groundfish landings.

A Polish fish processing plant in Gdynia. Preparing herring for hot smoking.

Poland (Contd.):

Table 2 - Poland's Marine Landings of Fishery Products, 1950, 1955, and 1960-1961

Fishery	1961	1960	1955	1950
	(Metric Tons)			
Groundfish	41,100	51,100	40,300	48,200
Herring	93,600	93,600	52,000	9,500
Sprats	11,300	9,900	5,100	1,200
Other	23,400	13,400	9,700	7,300
Total	169,400	168,000	107,100	66,200

Marine landings in 1961 were up 155.9 percent from those in 1950, due mainly to an almost tenfold increase in herring landings. The increase in landings reflects the rapid expansion of the Polish fishing fleet. (Concise Statistical Yearbook of the Polish People's Republic, 1962.)

Note: See Commercial Fisheries Review, November 1961 p. 63.

* * * * *

LONG-RANGE FISHERY PLANS CALL FOR WIDE-RANGING FLEET OF VESSELS:

Plans for expanding Poland's fishing potential and using foreign bases or ports, especially in West Africa, in order to expand fishing operations in South Atlantic waters, were discussed in an article published by Tygodnik Gdanski.

Poland's long-term plans for the development of the fishing industry in the years 1961-1980 call for a fish consumption of 11.5 kilograms (about 25.3 pounds) per capita. The realization of this goal (plus exports of 80,000 metric tons of fish and the production of 65,000 tons of fish meal per year) will require landings amounting to 900,000 tons in the year 1980.

In order to achieve this goal it is planned to develop fishing by factoryship trawlers and refrigerated trawlers, as well as to expand the fleet for expeditional purposes basing on specialized motherships. The North Atlantic, the most productive fishing ground, is envisaged as the fishing area of the deep-sea fleet.

At present the Polish fishing fleet exploits the Northwest Atlantic fishing grounds by means of factoryships. However, consideration should be given to the possibility that the dynamic development of world fishing carried on in the Northwest Atlantic can create a situation in which those rich fishing grounds will fail to provide good catches for Polish vessels.

The article points out that Poland should not either rely too much on temporary good fishing in the Greenland area, but should look for new fishing areas for her present and future fleet. In the light of development prospects of the fleet, and considering the fact that the range of a factoryship trawler based in Poland, amounts to 4,500 miles, of special interest to Poland should be the region along the northwest and central Africa starting at Cap Blanco, to the Gulf of Guinea. The exploitation of fishing grounds rich in fish off Angola, the grounds near South Africa, the Caribbean Sea, the Brazilian Shelf, and the rich fishing grounds near the Falkland Islands off the coast of South America will be feasible if the vessels are based at foreign ports or if motherships are used.

The essential task of the fishing fleet, the article continues, is to provide the Polish population with a sufficient amount of fish. But it is possible, especially during the period of finding new fishing areas outside the home-port range of the Polish fleet, situations can arise when part of the catch will be sold in countries with which Polish fishing enterprises cooperate. Such cooperation, for example, was started with Guinea in 1961.

Another cooperative venture began with the signing of an agreement between Poland and Nigeria for deliveries of fish to Lagos, Nigeria. In implementing this agreement two trawlers, the Neptun and the Mamry have set sail for African waters. Besides the profits from the sale of fish from the first fishing expedition, of considerable importance to Poland is furthering of economic cooperation with Nigeria. The high-quality fish unloaded in a foreign port will demonstrate the efficiency of Polish fishing vessels. Therefore, it may be expected that the new African countries will soon become the important customers of Polish shipyards.

South Africa Republic

LEGISLATION TO EXTEND TERRITORIAL WATERS PROPOSED:

In a statement released on December 21, 1962, the South African Prime Minister announced that the Government proposes to introduce legislation to extend the limit of the territorial waters of South Africa and South-

South Africa Republic (Contd.):

West Africa to 6 nautical miles from baseline, and the fishing limit to 12 nautical miles from baseline.

He stated that the effect of the legislation will be to apply the 6 plus 6 formula which narrowly failed of adoption at the 1960 Law of the Sea Conference, and which the Government is satisfied commands the widest measure of international acceptance. With respect to the continuation of fishing rights in the outer 6 miles, it is believed that in South African and South-West African coastal waters no problems of any significance will arise. According to the Prime Minister, the Government is prepared to consider sympathetically representations of any state which might consider its interests affected by the new legislation.

If international agreement on the breadth of territorial waters is reached after legislation is enacted, South Africa would consider amending the legislation to bring it into line with whatever had been internationally agreed upon. The Prime Minister also announced the Government's intention to accede to four 1958 International Conventions on the Law of the Sea: Territorial Sea and the Contiguous Zone; the Continental Shelf; the Conservation of the Living Resources of the High Seas; and the High Seas. (United States Embassy, Pretoria, December 22, 1962.)

Switzerland

FISH-SCALING MACHINE DEVELOPED:

A Swiss manufacturer has developed a device called the "Roto-Fix," which is used for scaling fish. The machine is in the form of a rotary scraper and a flexible shaft, driven at high speed by an electrical motor. Working cleanly and quickly without danger for the operator, the Roto-Fix device is expected to render a service in restaurants, hotels, and other large catering establishments. (United States Embassy, Bern, December 14, 1962.)

* * * * *

WATCH FOR DIVERS:

A watch factory at Chaux-de-Fonds, Switzerland, has created a new watch of a special type for the use of underwater divers. The watch is known as the "Vulcain Cricket Nautical." Equipped with a clock-striking mechanism and a decompression table, this diver's watch can play a double role under the water by reminding the diver when it is time to start for the surface and enabling him to see at a glance the various times and depths at which he will have to pause in order to avoid faulty decompression.

The clock-striking mechanism allows two divers to signal each other acoustically considerably beyond their range of vision. In tests the watch has stood up to pressures equivalent to depths of approximately 1,000 feet. (United States Embassy, Bern, December 14, 1962.)

U.S.S.R.

LANDINGS OF FISHERY PRODUCTS SURPASS GOAL IN 1962:

The Soviet Union's annual plan for fishery landings (including whales and other mammals) of 3,907,000 metric tons (about 8.6 billion pounds) for 1962 was fulfilled by December. The landings for the first 11 months of 1962 reached 3,907,360 tons as compared with the total catch for the year 1961 of 3,724,000 metric tons (8.2 billion pounds).

The catch goal for 1963, as announced by the Premier, is 4,220,000 tons (9.3 billion pounds).

* * * * *

TWO MORE FISH FREEZING VESSELS CHRISTENED IN DANISH SHIPYARD:

The M/S Davydov and the M/S Sovietsk were christened December 21, 1962. The refrigerated vessels are the last of a series of four identical fish carriers ordered by

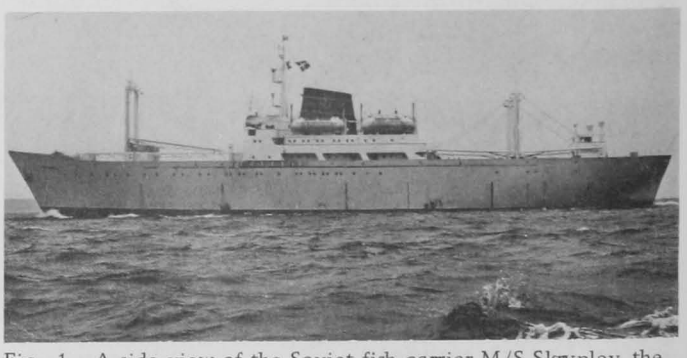


Fig. 1 - A side view of the Soviet fish carrier M/S Skryplev, the first of a series of four identical vessels.

U. S. S. R. (Contd.):

V/O Sudoimport, Moscow, from a Copenhagen shipyard. The M/S Skryplev was the first in the series and was delivered in late November 1962. The second vessel, the M/S Vitus Bering, which was launched June 9, 1962, should be ready for delivery early in 1963. The vessels are designed to dress and freeze fish which are taken aboard by way of a stern chute from accompanying trawlers.

Fig. 2 - Stern view of Soviet fish carrier M/S Skryplev showing stern chute.

Each of the vessels has a dead weight of about 2,600 tons, is 91 meters (298.5 feet) in length between perpendiculars, and has a beam of 16 meters (52.5 feet). The main engine on all of the vessels is a 6-cylinder Diesel developing 3,530 horsepower.

The director of the shipyard building the vessels announced that his firm has built 37 vessels for the U.S.S.R. in the past 30 years, of which 25 were refrigerated vessels for V/O Sudoimport. (European Regional Fisheries Attache, United States Embassy Copenhagen, January 2, 1963.)

United Kingdom

FISHERY LOANS INTEREST RATES REVISED:

The British White Fish Authority announced that, as a result of a change in the rates of interest charged to them by the Treasury, their own rates of interest on loans made as from November 17, 1962, will be as follows:

Fishing vessels of not more than 140 feet, new engines, nets and gear: on loans for not more than 5 years, $5\frac{1}{8}$ percent, increase $\frac{1}{4}$ percent; on loans for more than 5 years, but not more than 10 years, $5\frac{3}{8}$ percent, increase $\frac{3}{8}$ percent; on loans for more than 10 years, but not more than 15 years, $5\frac{3}{4}$ percent, increase $\frac{1}{4}$ percent; on loans for more than 15 years, but not more than 20 years, $5\frac{7}{8}$ percent, increase $\frac{1}{8}$ percent.

Processing plants: on loans for not more than 15 years, $6\frac{5}{8}$ percent, no change; for more than 15 years, but not more than 20 years, $6\frac{7}{8}$ percent, no change.

The rates on loans made before November 17 are unchanged.

Note: See Commercial Fisheries Review, November 1962 p. 83.

* * * * *

FISH STICKS ACCEPTED BY CONSUMERS:

Fish sticks (known as fish fingers in Britain) in just over seven years have become a regular part of Britain's national diet. They have now been recommended for inclusion in the Cost of Living Index.

The British company, which introduced the product to Britain in 1955, has evolved a new recipe, approved by panels of housewives and thoroughly tested in the company's research and development department at Great Yarmouth. At the company's Grimsby factory, new machinery has been designed to cut the fish.

The firm's product group manager for fish and fish products said:

"Fish fingers were introduced in 1955 and have since become a major part of the trend towards convenience foods which was noted by the National Food Survey Committee in its recent annual report."

The firm has set the pace in the British market, with 7 out of 10 housewives preferring the firm's brand. The company uses mostly cod fillets to produce its fish sticks.

At Grimsby the firm has a large and up-to-date plant. More fish sticks are produced there than in any other plant in Europe and many hundreds of tons are shipped each year to Australia and elsewhere as part of the company's expanding export business.

This illustrates the success of the product, the sales of which have multiplied ten times since it was introduced in 1955, for it has been estimated that more than 600,000,000 fish sticks (in number) were sold in Britain in 1961.

United Kingdom (Contd.):

Because of their impact on the total frozen food market (they represent some 16 percent of the total business and are second only to peas in importance), fish sticks have made a vital contribution to the growth and stability of the fishing industry in Great Britain.

In 1961, largely because of the demand for fish sticks, as much as 16 percent of the fish landed in Britain was quick-frozen, compared with only 8 percent in 1955 when they were introduced. (The Fishing News, British periodical, September 21, 1962.)

Zanzibar

FISHERIES DEVELOPMENT COMPANY TO SEEK EXPORT MARKETS:

The Government of Zanzibar has announced the formation of the Zanzibar Fisheries Development Company. This joint venture, in which the Government of Zanzibar holds the controlling interest, is designed to alleviate the British Protectorate's excessive economic dependence upon a single crop, cloves. Zanzibar is located off the east coast of Africa near Tanganyika.

The agreement is between the Zanzibar Government and a commercial fishing firm. The commercial company is contributing craft, gear, equipment, technicians, and expert knowledge. The new development firm commenced operation on November 11, 1962.

The main objective is to develop an export trade in fish products by exploiting fisheries resources which are beyond the present scope of local fishermen and by setting up a marketing service to handle fish caught by local fishermen which are surplus to local market requirements and suitable for the export trade. The new company will not interfere with fish supplies to local markets for so long as these are adequately supplied by local fishermen.

In order to achieve these objectives the company will be erecting necessary processing plants in the immediate future. A fish-curing plant capable of smoking and/or salting five tons of fish a day, with room for expansion to double this amount, was expected to be in operation within three months. A cold storage of 60 tons capacity with deep-freezing and ice-making plants will be in operation within 12 months. The erection of a cannery will be considered when the processing plants outlined above have been erected and are in full operation.

The two fishing units of the new company will initially concentrate on the catching of sardines and Indian Ocean mackerel by use of purse seines. It has been proved that those fish can be caught in quantity throughout the year in Zanzibar waters. Two additional fishing units will be built by the company in its own workshops during the next 12 months.

The British Freedom from Hunger Campaign has approved a scheme to investigate the tuna fishing potential in those waters. These trials will be conducted by the new company in collaboration with the East African Marine Fisheries Research Organization. Tuna schools are known to abound in those waters and it is confidently expected that their investigations will result in the large-scale development of tuna fishing by the company in the future.

The marketing service to purchase and process surplus fish caught by local fishermen will be established as soon as the cold storage is in operation. This service will undoubtedly provide the incentive necessary to develop local fisheries which are at present handicapped by the limited local market. Local fishermen will also be given practical training in the use of advanced techniques to enable them to play a full part in this development in the years to come.

Various countries are considered as possible export markets. It is anticipated that white meat tuna can be successfully sold in the United States and Europe. Northern Rhodesia, the Congo, and Greece are considered as markets for salted fish and Ceylon is thought to be a potential market for both dried and salted fish. The construction of a fish meal plant is projected for the future if conditions are found to be favorable. It is estimated that approximately 150 persons will be employed by the Fisheries Development Company by the end of 1962.

The Government of Zanzibar is placing heavy emphasis on the Fisheries Development Company. One senior Department of Agriculture official has termed it "our only hope for the future" as the Government has been unable to find additional agricultural crops that could be successfully cultivated in Zanzibar in order to produce substantial export revenues. (United States Consulate in Zanzibar, November 27, 1962.)