International

CENTRAL AMERICA COMMON MARKET TREATY SIGNED:

A General Treaty of Central American Economic Integration (Tratado General de Integracion Economica Centroamericana)[1/] has been signed by Guatemala, El Salvador, Honduras, and Nicaragua. The treaty reaffirms the intention of the contracting parties to unify their economies and jointly promote the development of Central America.

A protocol to the Central American Convention on Equalization of Import Charges to accelerate the establishment of uniform import duties on imports from outside the region was signed at the same time, December 13, 1960. A further agreement was signed creating a Central American Bank for Economic Integration to finance regional economic integration.

A "common market" is to be established among the contracting parties within 5 years of the entry into force of the General Treaty. Except for the special treatment for certain commodities described in Annex A of the treaty, the contracting States grant one another immediate free trade for all natural and manufactured products originating in their respective territories.

These commodities are exempted from import and export duties, including consular fees, and from all other taxes, surcharges, and imposts incurred by imports and exports, or charged by reason thereof, be they national, municipal, or of any other kind. Normal handling and storage charges as well as existing exchange rate differentials continue to apply to these commodities. Goods originating in the territory of the signatory nations will enjoy national treatment in all of them, except for the usual controls for reasons of health, safety, or the enforcement of law and order.

The temporary exceptions provided in Annex A apply to specific products which, if made immediately subject to regional free trade, would cause injury to existing producers. With few exceptions the products in Annex A are to be incorporated automatically into the free trade system no later than at the end of the fifth year in which this treaty is in effect.

Meanwhile a schedule of duty reductions is specified for each commodity in the list of products receiving special treatment. These items are contained in the series of bilateral exception lists which constitute Annex A, and any change in the lists or duty schedules may be accomplished only through multilateral negotiation.

Most manufactured products do not achieve free-trade status until the beginning of the sixth year.

The signatories further agree that the immediate 20-percent reduction in import duties on the natural and manufactured products of the respective participating countries, provided for in the Protocol to the Central American Convention on Customs Charges: Central American Tariff Preference, shall not be applied to the items receiving special treatment in Annex A of the General Treaty.

The contracting parties undertake to establish a customs union among their territories. For this purpose, they agree to effect a Central American free-trade zone within 5 years and to adopt a uniform Central American customs tariff under the terms of the Cen-

1/The General Treaty, which is similar to the Treaty of Economic Association signed in February 1960, broadens the scope and sets up more specific means of financing economic integration. It incorporates the provisions of the Convention for the System of Central American Integrated Industries, to permit the four contracting parties to proceed with industrial integration. It also retains the provisions in the "Central American Convention on Equalization of Import Charges." Provisions of all other regional agreements and bilateral treaties among the Central American States are superseded by those of the General Treaty, except where the treaty does not deal with provisions of those agreements.

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tral American Convention on Equalization of Import Charges signed at San Jose, Costa Rica, on September 1, 1959.

The second Protocol to the Central American Convention on Equalization of Import Charges was signed at Managua at the same time as the new Treaty of Economic Integration. In order to unify customs and transit treatment of items free traded in the Common Market area, and to simplify the application of a common external tariff, the signatory nations agree to conclude special protocols adopting a Standard Central American Customs Code and necessary transportation regulations. This is to be done within a year from the effective date of the General Treaty.

The industrial development laws and regulations, and other pertinent legislation of the contracting states, are to be made as uniform as possible re incentives offered for industrial development in the respective countries.

To that end, these nations will sign, within 6 months after the effective date of the General Treaty, a special protocol setting forth standard industry classifications, benefits, benefit periods, and administrative provisions to be applied to applicants in the signatory countries.

As for the "integrated" industries, special protocols are to be concluded within 6 months of the effective date of the General Treaty, stipulating the industrial plants that will be covered by it initially, and the benefits and obligations to which they will be subject. The provisions of the Convention on the System of Central American Integrated Industries is made part of the General Treaty in order to expedite the "integration" of industries in the region.

The Central American Bank for Economic Integration, provided for in the General Treaty and described in detail in a separate Protocol, is to serve as an instrument for financing and promoting regional economic integration. Nonetheless, members of the Bank (governments) may not obtain guarantees or loans from this institution until they have deposited instruments of ratification to the following international agreements: The General Treaty of Economic Integration, signed December 13, 1960; Multilateral Treaty of Central American Free Trade and Economic Integration, signed June 10, 1958; Convention on the System of Central American Integrated Industries, signed June 10, 1958; Central American Convention on Equalization of Import Charges, signed September 1, 1959, and the second Protocol signed December 13, 1960.

Under the new General Treaty, execution of the resolutions of the Economic Cooperation Committee is made a function of a Central American Economic Council. The Economic Cooperation Committee, a policy-determining body composed of the Ministers of Finance of the Central American countries, was formed in 1952.

In addition, an Executive Council will be created to apply and administer the General Treaty and to carry out the actual tasks required to achieve Central American economic union. The membership of the Executive Council will consist of one principal delegate and an alternate for each of the contracting parties.

The signatories agree not to conclude unilaterally with countries outside Central America any new treaties that affect the principles of Central American economic integration. As in previous agreements, they also agree to maintain the "Central American Exception Clause" in commercial treaties entered into on the basis of most-favored-nation treatment with countries other than the Central American states. This clause limits the application of most-favored-nation treatment by permitting the existence of special benefits to the countries of Central America which are not extended outside the area.

In other matters affecting third country interests, reference must be made to earlier agreements since the General Treaty does not cover them. Thus, under the Multilateral Treaty of Central American Free Trade and Economic Integration, the contracting parties agree to renegotiate or if this is not possible, to denounce, any commercial agreements in effect with third countries which violate the principles of the Central American Convention on Equalization of Import Charges. This is to be done by each party within one year of its deposit of its instrument of ratification of that Convention.

The General Treaty will become effective among the ratifying states eight days after the third instrument of ratification has been deposited and for the fourth state on the date

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of deposit of its instrument of ratification. The ratifying instruments are to be deposited with the General Secretariat of the Organization of Central American States (ODECA) in San Salvador.

Costa Rica has been invited to join and may adhere to the treaty at any time. Panama is also free to adhere to this treaty.

The General Treaty is to remain in force for 20 years from the initial date of its entry into force and may be extended indefinitely. Denunciation by any contracting party may be made after the 20-year period, to have effect 5 years after such notice is given. The treaty remains in force among its adherents, however, so long as two States continue to apply it. (Foreign Commerce Weekly, March 16, 1961.)

EAST AFRICA

MEETING ON MARINE BIOLOGY AND FISHERIES OF AFRICA'S EAST COAST:

A Symposium on Marine Biology and Sea Fisheries of Africa's East Coast was convened in Cape Town, Union of South Africa, from September 12 to 17, 1960, under the auspices of the Commission for Technical Cooperation in Africa, South of the Sahara (C.C.T.A.). The chairman was Professor J. Millot of the Malagasy Republic and the General Secretary was Dr. E. Postel who serves C.C.T.A. as its Inter-African Coordinator for Oceanographic, Marine Biological, and Sea Fisheries Research.

The Symposium was attended by delegates from the Malagasy Republic, Portugal, and the Union of South Africa. A paper from the East African Marine Fisheries Research Organization, Zanzibar, East Africa, was also presented, although the East African Territories (Kenya and Tanganyika) sent no delegates. Two observers represented the Food and Agriculture Organization. Some 15 papers were read to the Symposium.

The Symposium was opened by the South African Secretary for Commerce and Industries, who stressed the need for fishing research along Africa's east coast. He pointed out that, according to FAO statistics, Africa south of the Sahara accounted for only six percent of the world's fish catch and of this share, "the waters off the west coast of Central and Southern Africa are yielding more than ten times as much fish as the seas along the eastern seaboard." Calling for international coordination of research efforts, the South African Secretary for Commerce and Industries referred hopefully to the forthcoming International Indian Ocean Expedition.

List of Working Papers Presented at the Symposium of Marine Biology and Sea Fisheries on the East Coast of Africa, Cape Town, September 12-17, 1960

Title	Author	Language[1/]
1. Agenda	-	E & F
2. Report by the Portuguese Delegation	-	F
3. Contribution by Division of Fisheries, Dept. of Commerce and Industries, Union of South Africa	-	E
4. Notes on the Prawn Fishery Potential in Madagascar	A. Crosnier and D. Charbonnier	F
5. Crawfish Fishing in the Fort Dauphin Region (South-East Madagascar)	P. Fourmanoir, A. Crosnier & D. Charbonnier	E & F
6. Nosy-Be Station Publications by the Oceanography Branch of the Madagascar Institute for Scientific Research Issued or in Printing at 1 September 1960	-	E & F
7. Campagne d'Oceanographie physique en Canal de Mozambique	-	F
8. Marine Fisheries Research in East Africa: A review of the important activities of the East African Marine Fisheries Research Organization	D. Hall	E
9. Progress Report on Arrangements for a World Meeting on Tunas and Related Species	Fisheries Div., FAO	E
10. Essai de palangres "Long Lines" a'Madagascar	-	E
11. Resume du travail en cours de publication de P. Fourmanoir concernant les requins de la Cote Ouest de Madagascar	-	F
12. Hydrography of the East and South Coasts of the Union of South Africa and Possible Effects on Fishery Problems	M.E.L. Buys	E
13. East Coast Thunnidae	F. H. Talbot M. J. Penrith	E
14. Notes on Marine Invertebrates of Commercial and Possible Commercial Importance	-	E
15. Not listed.	-	-
16. Communication provisiore sur la repartition des copepodes planctoniques marins de l'Afrique du sud.	A. de Decker	F
17. Planktonic Polychaeta as Indicators of Ocean Currents Around South Africa	J. H. Day R. Weber	E

1/E - English only; F - French only; E & F - English and French.

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The Symposium was divided into several sessions, each on a different aspect of the East African region of the Indian Ocean. First, the physical and biological environment of the area, which for the Symposium's purposes covered the waters from Cape Point to Somalia, was discussed. The second session dealt with the research work done by the countries represented. Some of the research stations had done interesting experimental fishing, particularly for shrimp. Efforts to develop tuna fishing were discussed. South Africa's representatives mentioned their work with midwater trawls in the Union's east coast waters.

The third and fourth sessions dealt with fish, lobster, shrimp, and plankton. The fifth session discussed what is known of the productivity of the Indian Ocean, what further methods of measuring this productivity might be employed, and the present extent of commercial fisheries in the East African waters of the ocean.

The sixth session was devoted to an inventory of regional resources for marine biological and sea-fishery research, the need for international cooperation, and the part C.C.T.A. could play in coordinating efforts.

At the final session numerous recommendations were approved. Among them were recommendations to increase the size and number of research establishments in the East African area of the Indian Ocean; to train more scientists for work in the area; to increase scientific exchanges among the interested countries; to pay special attention to the study of shrimp in the area for the better exploitation of the shrimp resource; to make a coordinated systematic study of tuna in the area; and to draw up a bibliography of all research reports and other scientific information on the area in collaboration with C.C.T.A. It was also recommended that closer coordination be effected within the group and with the International Indian Ocean Expedition.

The Director of the Union's Fisheries, when interviewed, made the following comment. He felt, after the Symposium, that the Malagasy Republic offered interesting possibilities to overseas fishing interests. The waters of the Mozambique Channel appear to him to have rich enough resources, but the Malagasy fishery at present lacks capital, modern equipment, and skills to take advantage of the resources.

An official from the South African Museum stated that the subject of a concentrated, systematic study of tuna was taken up in detail at another C.C.T.A. symposium he attended, which was held in Dakar from December 12 to 17, 1960. There it was decided to coordinate both the west coast (Atlantic) and east coast (Indian Ocean) tuna studies for southern Africa, but not to centralize control of the study. (United States Consulate, Cape Town, January 31, 1961.)

FISHING LIMITS

SWEDISH-NORWEGIAN TALKS ON FISHING LIMITS:

Swedish-Norwegian negotiations regarding extension of the Norwegian fishing limits were held in Oslo, Norway, February 3 and 4, 1961. (As of April 1, 1961, Norwegian fishing limits will be extended to 6 miles and from September 1, 1961, to 12 miles). The negotiations are considered preliminary only and the meeting was arranged for the purpose of establishing the items of discussion at a later meeting in Stockholm, Sweden.

Swedish fishermen hope that the right to fish inside the four-mile limit in the Oslo fiord (mainly for shrimp) will continue. According to a 1955 agreement between Sweden and Norway, which expires on June 30, 1961, Swedish fishermen are permitted to fish for shrimp inside the four-mile limit in the Oslo fiord and Norwegian fishermen have been permitted to fish inside the Swedish four-mile limit along the Swedish coast. It is now claimed by Norwegian fishermen that the Norwegian fishing along the Swedish coast is of insignificant value, whereas the Swedish catches along the Norwegian coast reach a value of several million crowns. Whether Swedish fishermen will be permitted to fish up to the four-mile limit in other areas is, however, uncertain, but it is hoped in Goteborg that Swedish fishermen will be permitted to do so in the Skagerack area. (United States Consulate, Goteborg, February 10, 1961.)

FISH MEAL

PERU AND WEST GERMANY SIGN AGREEMENT ON MARKETING OF FISH MEAL:

The Governments of Peru and the Federal Republic of Germany in Lima on January 27,

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1961, signed a joint declaration pertaining to the market for fish meal. The Joint Declaration follows:

"Animated by the common desire to stimulate to a greater extent the economic relations between their two countries, the Governments of the Peruvian Republic and of the Federal Republic of Germany agreed, in accordance with the spirit of the Commercial Agreement of July 20, 1951, to hold conversations regarding the normalizing of the market for fish meal. Said conversations were carried on in the city of Lima between the accredited Delegations of the Governments between January 17 and 27, 1961.

"I. Both Delegations proceeded to a full exchange of ideas about production, the market, and the sale of fish meal in the world market, examining in detail the exports of fish meal from Peru to the Federal Republic of Germany. The Parties agreed that a normalizing of the trade in said product would be in the interest of both countries.

"II. The Delegation of the Peruvian Republic, in the course of the conversations, made it known that the National Fisheries Society, with a view to contributing to the normalizing of the world market for fish meal, had taken the following measures:

"(a) Agreement of the producers of fish meal of Peru, reached in September 1960, establishing export regulations which will permit the equilibrium of the buying markets and the improvement of prices. This agreement entered into force January 1, 1961.

"(b) Agreement of Paris, among representatives of the principal fish-meal producing and exporting countries--signed October 1, 1960. This agreement fixed the bases for normalizing the conditions of import markets, indicating world-wide export figures which are related to the demand of consuming markets. That agreement established the Peruvian export figure of approximately two-thirds of world-wide exports.

"(c) Supreme Decree No. 18 of December 16, 1960, issued by the Government of Peru, approving the Agreement of Export Regulations as well as the Agreement of Producers signed in Paris, giving the National Fisheries Society the authority necessary for the proper functioning of both measures.

"III. The Delegation of the Peruvian Republic agrees that, on the basis of Paragraph II, the National Fisheries Society is in a position to declare:

"That exports to the Federal Republic of Germany will be so channeled as, adjusting to subsections (a) and (b) of Paragraph II and possible future agreements, to lead to the normalizing of the market and prices for fish meal.

"Likewise, and within this regulation, the National Fisheries Society, upon authorizing export licenses for fish meal to countries other than the Federal Republic of Germany, will take appropriate precautions to the end that such shipments may not be re-exported to the said Republic, which will take appropriate measures to prohibit the importation of fish meal not originally declared for that destination.

"IV. Both Governments will continue to observe carefully the development of the world market for fish meal and, if it should become necessary, undertake new negotiations in Bonn.

"In witness whereof, the present Joint Declaration is signed in the city of Lima, January 27, 1961, in four originals, two in Spanish and two in German, establishing the valid text in both languages." (United States Embassy, Lima, February 15, 1961.)

FOOD AND AGRICULTURE ORGANIZATION

INTERNATIONAL FISH MEAL MEETING: Market Problems Studied: The tumbling price of fish meal and the effect it has had on the incomes of fishermen and producers made a meeting on the subject advisable, and 23 countries accepted invitations to the International Meeting on Fish Meal, March 20-29, at the Food and Agriculture Organization headquarters in Rome. Governments indicating their intention to send representatives were: Belgium, Cambodia, Canada, Colombia, Denmark, Germany, Iceland, Iran, Japan, Morocco, the Netherlands, Norway, Peru, the Philippines, Portugal, Somalia, Spain, Sweden, Tunisia, the Union of South Africa, the United

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Kingdom, the United States, and Yugoslavia.

The meeting was convened by FAO at the request of governments and with the financial backing of the world's fish-meal industry, and considered practical steps towards increasing effective demand for fish meal and ensuring stable conditions in the market.

United States Represented: The U. S. Departments of State and Interior and United States fish meal producers were represented at the FAO intergovernmental meeting in Rome, Italy, March 20-29, 1961. The emergency meeting was requested by member fish-meal producing countries as a result of a rapid increase in the world's productive capacity causing accumulation of stocks and substantial reduction in prices. Less than full use is being made of this valuable protein material which goes directly or indirectly into feed, and the incomes of fishermen and others involved in the production of fish meal are being seriously curtailed.

The meeting was expected to assess the world's demand for fish meal, both short- and long-term, in relation to productive capacity; consider ways and means of increasing the effective demand by action on the part of government and industry individually or in concert, such as in the feeding of protein-undernourished peoples; and explore possibilities of ensuring stable conditions in the international market for fish meal without resort to restrictive measures.

The following were the members of the United States Delegation to the meeting at Rome, March 20-29.

Chairman: Clarence W. Nichols, Special Assistant to the Assistant Secretary for Economic Affairs, Department of State. Vice Chairman: Donald L. McKernan, Director, Bureau of Commercial Fisheries, Department of the Interior.

Advisers: Donald Y. Aska, Chief, Branch of Marketing, Bureau of Commercial Fisheries, Department of the Interior; Thomas A. Barber, J. Howard Smith, Incorporated, Port Monmouth, N. J.; Michael P. Boerner, Office of International Trade, Department of State; Charles Butler, Acting Chief, Division of Industrial Research, Bureau of Commercial Fisheries, Department of the Interior; Charles Carry, Executive Secretary, California Fish Canners Association, Terminal Island, Calif.; W. M. Chapman, Director, The Resources Committee, San Diego, Calif.; Lawrence I. Clarke, President, Atlantic Processing Company, Amagansett, Long Island, N. Y.; J. Steele Culbertson, Director, Industrial Products Division, National Fisheries Institute, Incorporated, Washington, D. C.; Ursula H. Duffus, Economic Officer, American Embassy, Rome; Ammon G. Dunton, Chairman of the Board, Reedville Oil and Guano Company, Incorporated, White Stone, Va.; Allen W. Haynie, President, Reedville Oil and Guano Company, Incorporated, Baltimore, Md.; William C. Herrington, Special Assistant for Fisheries and Wildlife, Office of the Under Secretary of State; Frederick C. June, Jr., Chief, Menhaden Investigations, Bureau of Commercial Fisheries, Department of the Interior, Beaufort, N. C.; Stanley W. Letson, President, Maine Marine Products, Incorporated, Portland, Maine; John B. Lowry, Menhaden Vessel Captain, Reedville, Va.; John Franklin McCammon, Ralston Purina Company, St. Louis, Mo.; Harry I. McGinnis, Wallace Menhaden Products, Incorporated, New Orleans, La.; George R. Wallace, President, Wallace Fisheries Company, Morehead City, N. C.; Clayton E. Whipple, Agricultural Attache, American Embassy, Rome.

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INTERNATIONAL FISH MEAL MEETING IN ROME:

The fullest support of the Food and Agriculture Organization (FAO) for any measure contributing to the more extensive and profitable use of the world's fishery resources was pledged on March 20, 1961, by the FAO Deputy Director-General, at the opening session of the International Meeting on Fish Meal, Rome, Italy.

The meeting with 123 participants from 27 nations plus observers from four international nongovernmental organizations considered measures to assure stability in the fish-meal market. A sharp increase in the production of fish meal (up by some 700,000 tons in five years) caused the price of fish meal to drop from about $130 a ton to $75 a ton.

The participants named Dr. Augusto Assettati, Minister Plenipotentiary in the Italian Ministry of Foreign Affairs, as Chairman. Also elected were a chief rapporteur, three vice-chairmen, and six other chairmen of working committees. This group of ten constituted the meeting's Steering Committee.

The broad aim of the meeting was to assess the world demand for fish meal, now and in the future, and to explore all possibilities of achieving stability in the industry on the basis of consolidation and expansion of production and trade, without recourse to any restrictive measures which could be avoided by an exchange of information, experience, and views.

The Deputy Director-General pointed out: "You know that the expansion and development of the fish-meal industry has occurred with astonishing rapidity and offers an impressive demonstration of the results of applying modern technology and science to the exploitation of natural resources scarcely

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touched by the limited, often primitive, operations of earlier generations of fishermen.

"At the same time, the suddenness with which the market for fish meal deteriorated at a certain moment demonstrates just as impressively how delicate the balance may be between supply and demand and how powerful has been the incentive to increase production provided by the strength of the market up to 1959."

The widespread anxiety in the fish-meal industry has underlined the importance of timely international consultation. This applies with special force to fisheries, for unlike agriculture, fisheries are concerned with markets and natural resources that exist outside national boundaries.

"I must express my gratification that, in the present emergency, the Governments and the industry alike considered it appropriate to turn to FAO as the agency which could and should provide an international forum for an objective discussion of their problem," said the Deputy Director-General. Costs of the meeting were subscribed by the participating countries and their fish-meal industries. The industry also arranged for translations at the meeting into Japanese in addition to FAO's three official languages.

Two opportunities involving the use of fish meal and moving towards relieving hunger and malnutrition and falling within the scope of FAO's Freedom-from-Hunger Campaign were indicated to the meeting by the FAO spokesman.

"One concerns the possibility that the expansion and improvement of livestock production in many countries, where fish meal is scarcely known or unavailable at present, may eventually promote a much heavier demand for fish meal if certain problems of cost, foreign exchange, and farmers' education can be solved.

"The other concerns the possibility of promoting the use of fish meal and similar products for human consumption, a possibility which has been explored only very tentatively so far. A very great deal remains to be done in the way of nutritional and processing research, consumer education, and home economics before the significance of this possibility can be properly assessed."

The six working committees were: Group A, production of fish meal for animal food; group B, production of fish meal for human food; group C, research and productive capacity in the industry; group D, increasing the demand for fish meal for animal food; group E, increasing demand for use as human food; group F, studies towards the stabilization of conditions in the international fish-meal market.

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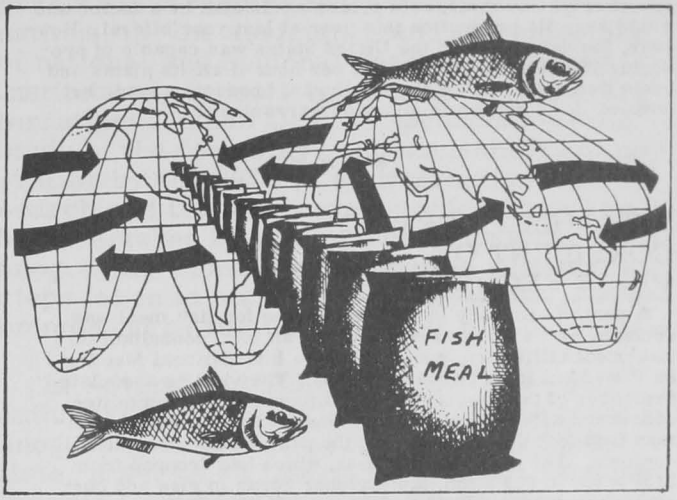
SUCCESSFUL TESTS OF FISH MEAL IN FOOD FOR HUMANS:

A note of optimism over the possibilities of refined fish meal or fish flour for human feeding was voiced on March 22, 1961, at the International Meeting on Fish Meal by delegations from countries where mass human feeding of fish flour has been successful.

The Moroccan delegate told the 27-nation meeting at the Food and Agriculture Organization (FAO) in Rome, that campaigns promoting the use of fish flour still needed to be developed.

"Our experiments with fish flour started two years ago," said the Moroccan delegate. "The results have been extremely satisfying, the acceptability complete. We made the population realize that it is deficient in protein. During 1959-1960, we doubled the human consumption of fish flour in Morocco. We hope to increase it in 1961. Two plants now manufacture biscuits that contain 15-percent protein derived from fish flour. The Government, with the assistance of international organizations such as FAO, has undertaken a mass campaign to increase the demand for fish flour. Our Government recognizes that 40 percent of the population still suffers from malnutrition."

The Moroccan opinion was seconded by the representative from the United Nations Children's Fund (UNICEF), whose organization also had been active in the Moroccan fish flour campaign. "I do not believe that adequate promotional campaigns have been made in countries where protein malnutrition exists," said the UNICEF representative. "Experiments in the Union of South Africa and Sweden were done among a population that had a wide range of choice among other protein foods."



In discussing the acceptability of fish flour, the Peruvian delegation, who described his country as the world's largest producer of fish meal, said tests began two years ago in Peru. "The fish flour was put into bread and was accepted very well by the children," said the Peruvian delegate. "The main difficulty is to convince the population that this type of food is food for them to combat protein malnutrition. The introduction of fish flour into their diets would be of great help."

The Swedish delegation reported that in Sweden the use of fish flour was still in the experimental stage. However, it had been used with success in rye bread and porridge.

A United States delegate said that fish flour products had been offered in the United States and that the Government was testing the products and running feeding tests. Plans called for studies in the engineering processes needed to manufacture fish flour products more cheaply.

Discussing the production of fish meal, almost every country said its production could be greatly increased. The Norwegian delegation said its winter herring catch should rise again in 1964 and so would its fish-meal production. The same was the case with Iceland.

The Danish delegation reported that with a 10- to 20-percent rise in the world price for fish meal, Danish production would increase again to 50,000-60,000 metric tons. The delegation said that it did expect such a price rise.

"Small producers can only continue if prices are good," said the French delegate. "French producers of fish meal have had to reduce the price. If fish is already cheap, as it is in France, we must find means of keeping the price up if we are to keep the industry growing. In France, the manufacture of fish meal is not a primary industry."

The Moroccan delegate said that 70 percent of fish processed within his country went into fish meal. "Morocco

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could double its fish-meal production if financial resources were available," he said. "The price now is set by the Government and is very low."

"Our resources are probably among the greatest of the world," said the Peruvian delegate. "However, measures have been taken to produce only 3 million metric tons of fish for fish meal during this year in order to preserve these resources. But studies are still under way on the resources to see what would be the best level of production. We are building fishing boats up to the 200-ton capacity. Plants and various operations have been modernized and we are improving the quality of the product."

A United States delegate, representing the second-largest producer of fish meal, said prices would still be a factor and would keep its production this year at last year's level. However, the delegate said the United States was capable of producing 15,000 tons of fish meal per hour if all its plants and boats were fully utilized. This meant production could be doubled if the economic situation warranted it.

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FISH MEAL MEETING CONFIDENT OF PRICE RECOVERY:

A partial recovery in the world price for fish meal was declared an "absolute certainty" by an FAO consultant on fish-meal utilization, speaking at the International Meeting on Fish Meal in Rome on March 23. The visiting associate professor of the University of California told a committee concerned with increasing the demand for fish meal for human food that the price rise in the past several months will continue. The price of fish meal, which had dropped from $130 a ton to $75 a ton, last October began to rise and currently ranged from $100 to $105 a ton. "The fish-meal market has radically changed in competition with other high protein feeds," said the associate professor. "The premium which fish meal can expect to command over other high-protein feeds will be a bit lower. But this does not mean that the price will be at all unfavorable to the industry. I think that some recovery of price is absolutely certain."

The professor went on to sketch some of the "completely unfortunate" conditions that had combined to depress the price of fish meal during the past several years. He named oceanographic factors affecting the supply of raw fish, a drop in hog and poultry production, a sudden increase in competition from soyabean feeds, and additional production of fish meal by Peru. Some of these factors have been overcome, others are changing. The hog and poultry production is picking up. The price of fish meal is going to rise within the next six to nine months.

"With the great increase in supply last year, fish meal was being pushed into markets where it was already being used," said the professor. "It then became valuable only for its crude protein. Now, supplies are being reallocated, new markets developed. Fish meal will come to be evaluated in the terms of its plus factors, such as sulphur-containing amino acids. The general market situation has altered from what it was several years ago."

The professor's optimism was reflected by the adviser to the delegation from the Union of South Africa, whose country is the world's second-largest exporter of fish meal. Although income from fish meal was £1.5 million less in 1959 in South Africa than in 1960, the adviser said that optimism prevails in the South African fish-meal industry. However, he pinpointed continuity of supply as one of the main factors that lead to market stability. "We have had a policy of carrying stocks over a 12-months period," he said, "where the average producer only has supplies during the 6 to 7 months when he is actually producing. Unless exporting countries are prepared to carry stocks over 12 months, so they can give a reasonable spread of supply, they cannot give consumers confidence that stocks will be available during all the year."

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MEETING DISCUSSES ROLE OF FISH MEAL IN ANIMAL FEED:

The continued and expanded use of fish meal in feed for animals will depend on steps being taken by the fish-meal industry to standardize the quality, supply, and price of its product, the International Meeting on Fish Meal in Rome was told on March 22, 1961. A professor of the University of Maryland told a working group of the meeting that if these factors are "relatively constant," and if better use is made by the industry of scientific and economic information about its product, "in most areas the use of fish products for animal feeding can be increased."

The working committee, which was to report to a plenary session on March 23, was concerned with factors affecting the demand for fish meal in compounds of animal feed. Despite a vastly increased supply in the past year, and a sharp drop in prices, fish meal had not regained its traditional place as the high-protein component of compound feeds. One reason advanced was that feed manufacturers had, in an earlier period of high fish-meal prices and short supply, converted to the use of synthetic amino acids. Improved technology and lower prices in the production of synthetics had made manufacturers reluctant to change back to fish meal.

Other speakers pointed out that, with the assurance of constant supply of high-quality fish meal at a moderate price, feed manufacturers would adjust their mixtures to include more fish meal. While competition from other sources of protein was held to be growing stronger, it was felt that fish meal was still a "good buy" in terms of its nutritive value.

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MEETING ON ECONOMIC EFFECTS OF FISHERY REGULATIONS:

The economic effects of fishery regulations, a field of study that is rapidly gaining international importance with the increasing size and range of fishing fleets and with the extensive exploitation of the high seas, will be further evaluated at a meeting of experts from June 12-17, 1961, at Ottawa, Canada.

Sponsored by the Food and Agriculture Organization (FAO), the meeting is the result of four conferences, beginning in 1956, on the economic effects of regulations in selected fisheries. FAO member governments and interested intergovernmental organizations have been invited to send participants with expert knowledge in this field.

The purpose of the meeting is to add to the theoretical knowledge of the economic management of fisheries and to improve the value of regulation as a means towards attaining basic objectives of fishery policy. Until recently, attention was focussed primarily on regulating fishery resources as a means of protecting these resources and to maintain a steady yield. Just before the Second World War, it was pointed out that a rate

International (Contd.):

of fishing that produces maximum steady yield may not necessarily be the most economical one.

The effects of regulation on the incomes of those whose livelihood depends on the exploitation of fishery resources, is of utmost importance. For example, on certain fishing grounds, cost factors may be too high for the economic exploitation of the fishery by a great number of fishermen. In such cases, it might be necessary to give consideration to alternate measures, such as the exploitation of these grounds by only a limited number of fishermen so that each could derive a greater income from the fishery.

The problem of determining and ensuring an economic level of fishing intensity is rather complex, since it requires not only an evaluation of biological and economic factors but also agreement among nations as to the best exploitation of fish stocks that are often property common to all.

Regulations have been closely examined from a theoretical and economic standpoint in a working paper, "The Economics of Regulating Fisheries," prepared by Anthony Scott of the University of British Columbia (Canada) for the meeting. "The criterion against which methods of regulations and their results are assessed is that of the efficiency of the whole economy, in which the fishery is just one industry," the paper points out. "It should be asked of each fishery regulation whether it assists or retards efforts to make the best joint use of manpower, capital, and natural resources."

Using this criterion, the meeting would examine and evaluate the economic effects of the different types of fishery regulations (e.g. closed areas, closed seasons and quotas, limitations on technology, gear and entry) as applied in selected fisheries.

Numerous agreements among countries interested in the protection and exploitation of certain fishery resources are now in force. The meeting is to provide an opportunity for discussion on experience gained in the Northwest Atlantic lobster and the Northeast Pacific halibut industries, the South African pilchard industry, the whaling industry, and the Japanese trawl fishery.

OCEANOGRAPHY

INTERGOVERNMENTAL CONFERENCE:

The Intergovernmental Conference on Oceanographic Research, convened by UNESCO, met in Copenhagen, Denmark, July 11-16, 1960. The Conference adopted resolutions for the General Conference of UNESCO in November 1960, concerned with: (a) the establishment within the framework of that agency of an International Oceanographic Commission made up of representatives of nations willing to participate in oceanographic programs which require concerted action by the nations; (b) the assistance and strengthening of national and regional research training institutions, especially in relation to the International Indian Ocean Expedition; (c) the study of the feasibility and advisability of operation by UNESCO of an international research and training vessel (which study should be undertaken by the Intergovernmental Oceanographic Commission) and the necessary steps taken to start such an operation if recommended by the Commission.

In November 1960 the UNESCO Council authorized establishment of an Office of Oceanography as a part of UNESCO. At the same time, it set up an Intergovernmental Oceanographic Commission. (Pacific Science Association Information Bulletin, January 1961.)

WHALING

PRICE HIGHER FOR 1960/61 SEASON ANTARCTIC WHALE OIL:

The International Association of Whaling Companies reports that about 220,000 tons of whale oil of the 1960/61 season have been sold by the British, Dutch, Japanese, and Norwegian whaling companies. About 190,000 tons have been bought by a large British firm and about 30,000 tons by the three Norwegian hardening plants. In addition, the British firm has purchased 10,000 tons of whale oil from the stocks held by the British Ministry of Food. The price for the entire quantity is reported to be £73 10s. (US$205.80) a long ton or £1 ($2.80) more than the price for oil produced in the 1959/60 season. It is also reported the entire Norwegian production of 10,500 tons of sperm oil has been sold.

Although the Norwegian expeditions planned to continue operations until April 7, the weather in the Antarctic was reported to be very unfavorable and it was uncertain wheth-

International (Contd.):

er the Norwegian expeditions would reach the quota of 5,800 blue-whale units. United States Embassy, Oslo, March 24, 1961.)

Angola

SUBSIDY ON FISH MEAL EXPORTS ENDED:

With the close of 1960, the Angolan Institute of Fishing Industries ceased granting subsidies to exporters of fish meal. The funds provided for this purpose were sufficient only for the period July 1 to December 31, 1960; the authority governing this expired and was not renewed. The subsidy has been withdrawn because of the need for the Government to economize and divert money to more important projects and because the world market price for machine-dried fish meal has risen to about $85 per metric ton. That figure roughly approximates the costs of production of many Angolan producers, according to the Fishing Institute. (United States Consulate, Luanda, February 24, 1961.)

Argentina

SHRIMP LANDINGS FROM THE RAWSON AREA POOR:

According to the January 4, 1961, issue of the Argentine newspaper La Prensa, over half of the 40 fishing vessels that sailed to the shrimp grounds near Rawson, Province of Chubut, returned to northern waters because of a scarcity of shrimp this season. Returning fishermen attribute the scarcity to the large catches of the past five years which supposedly included young and breeding shrimp.

Last year also was an extremely poor year for the Argentine shrimp industry. However, the fishermen's explanation that overfishing is creating the scarcities is not substantiated by scientific investigators. There is no satisfactory answer for the fluctuations in the shrimp fishery in the Rawson area. A poor catch in 1961 will seriously affect those firms which were organized in the past four years to export shrimp to the United States. (United States Embassy, Buenos Aires, January 4, 1961.)

Australia

SHRIMP INDUSTRY:

There was a sharp decrease in the amount of Australian shrimp exports, particularly to the United States in the fiscal year ending June 30, 1960. Total exports, which had risen to more than 427,000 pounds in 1958/59, dropped to only 209,795 pounds in 1959/60 and are estimated to be running at an annual rate of under 200,000 pounds this fiscal year, July 1, 1960-June 30, 1961. Even more marked has been the decrease in exports to the United States (including Hawaii) which fell from 385,932 pounds (90 percent of total shrimp exports) in 1958/59 to 35,330 pounds in 1959/60 (only 27 percent of total shrimp exports). Exports to the United States for 1960/61 are estimated to be about 26,000 pounds.

Table 1- Australian Shrimp Export by Country of Destination, 1959/60 and 1960/61

Destination	1960/61 1/		1959/60	
	July 1- June 30		July 1-June 30	
	Green Shrimp	Cooked Shrimp	Green Shrimp	Cooked Shrimp
	(Lbs.)			
United States	6,000	-	6,640	-
Honolulu	20,000	10,000	28,690	15,199
New Guinea Area.	100,000	25,000	96,676	25,622
New Caledonia	2,000	23,000	1,627	23,005
Fiji, New Hebrides	1,000	11,000	788	11,292
Others	100	200	60	196
Total	129,100	69,200	134,481	75,314

1/Estimated.

The Australian Fisheries Division can offer no explanation for the sharp reduction in shrimp exports to the United States, which has taken place in spite of the considerable rise in total heads-on landings from over 6.7 million pounds in 1958/59 to 7.8 million pounds in 1959/60. Officials are only able to speculate that a rapid increase in the catch and availability of large banana shrimp has attracted Australian consumer attention, and domestic demand and prices for all kinds of shrimp have risen as a consequence. Coupled with this is the fact that consumer demand for shrimp in nearby New Guinea has also risen sharply. With local demand apparently sufficiently high to support profitable prices, fishermen have turned away from the distant United States markets to local and nearby markets.

The main shrimp fishing grounds are located on the east coast of Australia between Nowra in New South Wales and Yeppoon in Queensland. Shrimp fishing is not carried out along the entire length of this coastline, but is concentrated around ports such as Nowra, Newcastle, Maclean, and Evans Head in New South Wales, and Southport, Moreton Bay, Tin Can Bay, Bundaberg, Gladstone, and Yeppoon in Queensland. Over 90 percent of the Australian shrimp landings come from that area. The remainder comes from Southern New South Wales, Victoria, and Western Australia.

Shrimp are available from the above areas, which run from tropical to temperate zones, over most months of the year. In Queensland, banana shrimp (Penaeus merguiensis) are obtained in Hervey Bay and off Yeppoon from May to August. King shrimp (Penaeus plebejus) are taken off Fraser Island from July to September and off Moreton Island from November to February. In New South Wales school shrimp (Metapenaeus macleayi) and king shrimp are taken during the December-April period.

Although there are 5 plants in New South Wales and 8 in Queensland registered to process shrimp by freezing for export, they do not all export their production. One firm in New South Wales, which is registered to can shrimp for ex-

Australia (Contd.):

port, has packed less than 20,000 pounds to date, all of which have been sold on the Australian market. There is very little trend towards mechanization in the existing plants. In most plants, sorting, peeling, and heading, etc. are carried out by female labor. Only one plant uses automatic grading machines; there are no peeling machines in Australia.

Most vessels built for Australian fisheries are designed so that with slight modifications they can be used in other fisheries. Therefore, there is no specific shrimp fleet as such and there is no specific construction program for shrimp vessels. All existing shrimp fishing vessels are owned by Australians or Australian companies.

There are at present no export controls, subsidies, or taxes levied on shrimp exports by the Australian Government. The wages paid to employees in Australian processing plants are: (1) Full-time employees receive the basic wage plus a margin for skill. The basic wage in New South Wales and Queensland is £14 14s. (US$ 33.36) and £13 16s. ($31.32) per week, respectively. The margins range up to approximately £1 10s. ($3.40) per week. (2) Employees on piece work who are generally females, are paid on the quantity handled. The most recent data available (1957) for Queensland is: grading 1d. (0.9 U.S. cent) a pound; heading and grading 1.5d. (1.4 cents) a pound to 2d. (1.8 cents) a pound, layer packing 1d. (0.9 cent) to 2d. (1.8 cent) a pound according to grade. The greater the number of shrimp per pound the higher the rate.

Payment to the fishermen varies slightly but in all cases full payment for shrimp delivered is made within one month of delivery.

No accurate data are available on fishermen's income. However, as the majority of shrimp fishermen engage in other types of fishing it can be assumed that the income from shrimp fishing alone is insufficient for economic operation of the fishing vessel.

With further exploratory shrimp trawling in waters adjacent to the northern coastline of Australia there is a good possibility that the Australian shrimp catch will be increased.

Shrimp in Australia probably include the banana, tiger, and western king shrimp (Penaeus latisulcatus), which are suitable for export to most countries.

The banana shrimp which is expected to be found in commercial quantities in the tropics has already been exported to the United States where it is classified as a "white" shrimp. The western king shrimp may be suitable for export to the United States as a "pink" shrimp. (United States Embassy in Canberra, November 30, 1960.)

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CANNED FISH IMPORT STATUS CHANGED FROM QUOTA TO REPLACEMENT BASIS:

All Australian canned fish imports were transferred on January 1 from a quota to a replacement basis.

Norms will be established on the basis of twice the value of Category A quotas held by importers at December 31, 1960. The value of outstanding licenses will be taken into account in calculating the amounts initially available under norms. The replacement system enables licenses to be granted to new importers.

The application, last April, by the Fish Canners' Association of Australia for a Tariff Board hearing on canned fish has been granted. The Association will ask for increased import duties.

The Board will report whether assistance should be given to the Australian fish-canning industry; if so, what assistance; and, if assistance should be given by Customs tariff, what the rates of duty should be. (Australian Fisheries Newsletter, February 1961.)

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TUNA LANDINGS IN NEW SOUTH WALES SET NEW RECORD:

The 1960/61 tuna season in New South Wales, which began badly with some weeks of unfavorable weather, by January 10 had produced record landings of 2,250 short tons. The fish were delivered to the cannery at Eden. It was also the first time the Eden deliveries had topped the 2,000-ton mark.

Between December 15 (when it seemed that the season was tapering off) and January 10, the cannery received 300 tons of tuna. On January 12 some boats were still out looking for more fish.

To the Eden deliveries of 2,250 tons must be added tuna taken to South Australia by refrigerated trucks and fishing boats, the minor normal buying by a Sydney cannery, and some tuna used for other purposes. But even at 2,250 tons, the 1960/61 New South Wales tuna catch is well above the previous record of 1,964 tons in 1959/60.

The tuna were taken this year in bursts, which sometimes overtaxed the Eden freezer. The cannery notified the Tuna Boat Owners' Association of Australia daily of the quantity of fish it could handle.

In 1953/54, the New South Wales tuna catch first reached the substantial total of 526 short tons.

New South Wales tuna landings, in short tons, 1953/54-1960/61 were as follows: 1960/61[1/] 2,250; 1959/60, 1,964; 1958/59, 1,945; 1957/58, 965; 1956/57, 841; 1955/56, 327; 1954/55, 460; and 1953/54, 526. (Australian Fisheries Newsletter, February 1961.)

1/To January 10, 1961.

Austria

FISH MEAL MARKET:

Austria, an inland country, has no marine fishing industry and no domestic production of fish meal. The quantity of fish meal consumed is equal to the quantity imported.

Consumption of fish meal is insignificant when considering that approximately 1.3 million metric tons of grains plus large quantities of hay and other feeds are fed to livestock annually, and that only about 12,800 metric tons of fish meal were imported in 1959.

Imports of fish meal and fish waste unfit for human consumption (tariff #23.01-B) are duty-free and liberalized from both the dollar and European areas. Imports are effected by importers and wholesalers of feedstuffs and a few large producers of mixed feeds.

The most important countries of origin of Austrian fish meal imports are Angola, Norway, and Peru, which supply about 90 percent of the imports.

Austria's Imports of Fish Meal, 1959

Country of Origin	Quantity	Value	
	Metric Tons	AS 1,000	US$ 1,000
West Germany	105	479	18
Italy	33	142	5
Belgium-Luxembourg	352	1,465	56
Great Britain	40	176	7
Iceland	35	177	7
Netherlands	80	329	13
Norway	2,794	13,222	509
Portugal	340	1,328	51
Switzerland	7	38	1
Japan	94	417	16
Angola	6,457	26,625	1,024
South African Union	50	264	10
United States	5	21	1
Argentina	47	175	7
Peru	2,279	8,905	343
Australia	105	577	22
Total	12,823	54,340	2,090

Practically all of the imported fish meal is used for the production of mixed feeds.

Prices range from 2,600 to 3,800 schillings a metric ton (US$100.00-146.15 a metric ton) free on Austrian border, according to country of origin, quality, protein content, and world market fluctuations. (United States Consulate, Vienna, February 20, 1961.)

Note: US$1.00 equals about 26.0 Austrian schillings.

Belgium

FISH-MEAL PRICES, MARCH 1961:

Belgium fish-meal prices early in March 1961 were about unchanged for domestic fish meals but slightly higher than a month earlier for imported fish meals. Imported Meal: 65 percent protein, US$80.60 per metric ton or about $73.12 a short ton, c.&f. Antwerp (80-90 percent digestible). Domestic Whole Meal (fish solubles added): 62 percent protein $99.20 a metric ton or about $90.00 a short ton f.o.b. plant (93-94 percent digestible). Domestic Regular Meal: 50-55 percent protein, $69.50-76.45 a metric ton or about $63.05-69.36 a short ton f.o.b. plant (about 90 percent digestible). (United States Consulate, Antwerp, March 6, 1961.)

British North Borneo

SHRIMP RESOURCES OFF NORTH BORNEO SURVEYED:

The Kagawa Prefecture Overseas Fisheries Co. in Shikoku has sent four vessels--the Kagawa Maru No. 1, 215 tons, and Kagawa Maru No. 2, 75 tons, and two trawlers of the 40-ton class from Takamatsu, Kagawa Prefecture, to Sandakan (located in the northeastern section of British North Borneo on the Sulu Sea), to explore the shrimp-fishing potential in that area.

The contract on the fishing vessels can be renewed at the end of three months, but whether or not a joint company may be established depends upon the results of the exploratory fishing. Besides the Kagawa Prefecture firm, two other Japanese fishery firms are also participating in the enterprise. (The Suisan Tsushin, January 7, 1961.)

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SHRIMP FISHERY OF STATE OF BRUNEI UNDEVELOPED:

According to a statement by the Government of the British North Borneo's State of Brunei, there is no organized shrimp industry in Brunei.

Shrimp are usually caught near the shore. The fishermen wade into the water, at times shoulder high, each one pushing a net in front of him. Little or no shrimp fishing is done from boats. Therefore, the catch at times is considerable and at other times negligible.

British North Borneo (Contd.):

Catches are seasonal and depend on localities. It is said that large catches are obtained in Brunei Bay during one short period in the year, usually about February. From the open seas the shrimp come inshore in large numbers, perhaps once every one or two months.

Shrimp fishing is a village industry. There are no freezing, canning, or other plants in Brunei. The catch is normally made into paste (Belachan) or dried. Such processing is done by the fisherman and his family. A small portion of the catch is sold fresh in the local market.

No statistics are available for the total annual landings of shrimp, which are made up of two varieties. The smaller and more abundant variety is known locally as "bubok buyah." The larger, averaging about 1½ inches in length, is locally known as "bubok tambak."

There is no export of shrimp or shrimp products from Brunei. The catch is insufficient to meet local demand and all shrimp fishing is a family-type venture.

Any possibility of expanding the industry is dependent on the discovery of further fishing grounds. However, little or nothing is known on this aspect and considerable research would be required before a substantial expansion could be attempted. (United States Consulate, Singapore, February 14, 1961.)

Note: The State of Brunei is west of the San Dakar area where the Japanese are surveying the shrimp resources of the Sulu Sea.

Canada

BRITISH COLUMBIA DOGFISH LIVER LANDINGS AS OF MARCH 15:

The dogfish liver landings in British Columbia under the Government Subsidy Program as of March 29, 1961, totaled 910,711 pounds and the subsidy paid for the livers amounted to C$109,285.

The subsidy on British Columbia dogfish livers was raised from 10 cents to 12 cents a pound in October 1960. The Canadian Government voted C$150,000 for special payment on dogfish livers, for the season ending March 31, 1961. This represents a 12 cents subsidy on 1,250,000 pounds of dogfish livers.

In the 1959/60 season, which started in mid-August 1959 and ended on March 31, 1960, a total of 1,500,000 pounds of livers were taken under the subsidy plan. The Government spent $150,000 at 10 cents a pound. Although $250,000 was available for the subsidy in 1959/60, not enough dogfish were caught to use all of that amount. (Western Fisheries, October 1960.)

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BRITISH COLUMBIA HERRING LANDINGS AND PRODUCTS, 1955/56-1960/61:

Herring landings in British Columbia during the 1960/61 season amounted to 171,941 short tons as compared with 185,153 tons landed in the 1959/60 season. Fishing activities in both the 1960/61 and 1959/60 seasons were curtailed somewhat due to market conditions for fish meal and disputes over ex-vessel prices. The yield of herring oil in

British Columbia Herring Landings and Products, 1960/61 Season with Comparisons

Season Ending:	Unit	March 18, 1961[1]	March 12, 1960[1]	March 14, 1959	March 15, 1958[1]	March 16, 1957	March 10, 1956
Landings:							
District No. 2:							
Northern	Tons	47,088	23,239	10,980	11,286	31,004	11,055
Central	"	43,505	10,919	40,628	14,965	36,213	50,084
Queen Charlotte Is.	"	2,896	3,121	23,058	13,774	29,089	92,637
District No. 3:							
Lower East Coast	"	31,309	55,582	51,648	18,284	43,389	48,978
Middle East Coast	"	10,023	20,014	10,183	9,932	20,001	30,156
Upper East Coast	"	2,978	10,005	15,015	3,470	15,045	951
West Coast	"	34,142	62,273	78,122	12,624	5,202	19,535
Total	"	171,941	185,153	229,634	84,335	179,943	253,396
Products Produced:							
Bait	"	1,619	848	1,046	[2]	1,116	1,175
Meal	"	31,014	34,492	42,307	14,886	32,555	47,314
Oil	Imp. gals.	2,956,948	4,585,307	4,545,845	1,900,775	3,452,762	4,391,230
Canned	48-lb. cases	[2]	[2]	[2]	[2]	[2]	[2]

1/Limited operations.
2/Less than three companies reporting.
Source: Canadian Department of Fisheries (Pacific Area), Vancouver, B. C.

Canada (Contd.):

1960/61 was the lowest per-ton of raw herring in the past six years.

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NEW BRUNSWICK FISH-MEAL PRICES, MID-MARCH 1961:

Fish-meal prices (60 percent protein) quoted by New Brunswick, Canada, producers in mid-March this year were C$87-90 a short ton (C$1.45-1.50 a protein unit), up about C$6.00 a ton from the prices of mid-February 1961. Prices in February were C$81-84 a short ton (C$1.35-1.40 a protein unit) for both domestic and export sales. (United States Consulate, Saint John, N.B., March 14, 1961.)

Ceylon

MOTORIZATION OF PRIMITIVE CRAFT RAISES FISHERMEN'S CATCH:

In 1951, the Government of Ceylon decided to start mechanizing fishing boats, using the advice of Food and Agriculture Organization (FAO) experts and utilizing boat designs first developed by FAO naval architects in India for Indian fishing vessels. Many hundreds of existing boats were mechanized. Then in 1958, an ambitious plan called for 8,000 mechanized boats to be built within the next 10 years. An FAO naval architect was requested and a Finnish expert in the mass production of boats, engines, and tools was sent to Ceylon.

The Finnish expert studied the Ceylonese methods of boat building and the purpose for which the boats were needed. Then he designed a boat which introduced many improvements and is included among the 600 mechanized boats built in Ceylon during 1959 and 1960.

But the Finnish expert's most interesting work began when he proved that even the most primitive rafts (the teppans or sailing rafts) could be mechanized with outboard motors, boosting the Ceylonese fishermen's catch by almost 600 percent and their income by 300 percent. (The teppans are shallow craft built of several logs lashed together.)

He put 5-hp. outboards on big teppans and recorded the results. Without the engines, the boats averaged a catch of 358 pounds of fish monthly valued at 185 rupees (US$38.94).

Teppans or catamarans--fishing craft built of several pieces of wood put together very simply and a sail--are the type of craft used by many Ceylonese fishermen.

With the engines enabling the teppans to reach the distant and deeper fishing grounds, the mechanized rafts averaged 2,435 pounds of fish monthly, a catch valued at 1,462 rupees ($307.79). This 580-percent increase in catch was recorded in August 1960, which is considered a bad fishing month.

"There is a difference between mechanizing a boat, designing it for an engine plus net-handling gear, and motorizing a boat by the use of an outboard motor," said the Finnish expert. He added, "some 2,500 of the 7,500 large 30-foot teppans used in northern Ceylon could be motorized. We should try to use the local craft, with its many advantages such as shallow draft and no need of harbor facilities as much as possible, especially until the other mechanized boats and harbors are built."

The Finnish expert, who has returned to Ceylon to work with the mechanization program there until the end of 1962, plans to start experimenting with motorizing the small 16-foot teppans used in southern Ceylon

Ceylon (Contd.):

to see if the outboard motors will bring as good results as they did on the larger teppans in northern Ceylon.

The need for fish in Ceylon is obvious, for although the island country has 90,000 fishermen, it still has to import fish. The marketing and distribution system there needs to be streamlined, said the expert, for old-fashioned methods of marketing still keep the price of fish up.

Chile

EXPORTS OF FISH MEAL AND OIL, 1960 AND JANUARY-FEBRUARY 1961:

All exports of fish meal and oil during the first two months of 1961 by Chile originated with fish meal plants in Arica and Iquique which operate with a 20-30 percent subsidy. The export price of fish meal early in March was $72-$75 a metric ton ($65.32-68.04 a short ton). There has been an increase of about $10 a metric ton since the first of the year. This increase results from the shortage of Peruvian meal, according to trade sources.

Table 1 - Chilean Exports of Fish Meal and Oil, January-February 1961

Destination	Quantity	Value	Average Price	
	Metric Tons	US$	US$/ Metric Ton	US$/ Short Ton
January Exports				
Fish Meal:				
United States	797	50,400	63.22	57.35
Netherlands	1,647	123,850	75.19	68.21
Germany	295	25,200	85.57	77.63
Brazil	208	14,625	70.15	63.64
Totals and Averages	2,947	214,075	72.63	65.89
February Exports				
United States	99	9,182	92.75	84.14
Netherlands	648	55,725	86.00	78.02
France	120	7,440	62.00	56.25
Totals and Averages	867	72,347	83.44	75.70
January Exports				
Fish Oil:				
Germany	508.1	65,462	128.84	116.88
February Exports				
Germany	100	13,500	135.00	122.47

Source: El Informativo. Organo oficial de la Camara Central de Comercio de Chile y de la Camara de Santiago. Official export figures are published by the Central Bank of Chile.

The Central Bank of Chile has published revised statistics for the year 1960. These data show a substantial increase (from 26,433 metric tons valued at US$1,990,690 to 28,155 tons valued at $2,011,600) in the exports of fish meal obtained earlier from the same source. The revised figures, which are still preliminary, are as follows:

Table 2 - Chilean Exports of Fish Meal and Oil, 1960

Destination	Quantity	Value	Average Price	
	Metric Tons	US$ 1,000	US$/ Metric Ton	US$/ Short Ton
Fish Meal[1]:				
United States	19,025	1,352.5	123.65	112.18
Netherlands	3,141	213.0	67.82	61.53
Germany	1,479	112.6	76.14	69.07
Spain	1,467	88.7	60.47	54.86
France	1,189	100.6	84.60	76.75
Belgium	933	73.4	78.65	71.35
Italy	739	57.4	77.66	70.45
Mexico	100	6.8	68.41	62.06
Great Britain	59	4.3	73.01	66.23
Bolivia	23	2.3	99.57	90.33
Totals and Averages	28,155	2,011.6	71.45	64.82
Fish Oil[2]:				
United Kingdom	2,259	330.7	146.42	132.83
Germany	1,951	224.5	150.81	136.81
Norway	1,012	115.3	113.93	103.36
Denmark	600	73.7	126.17	114.46
Netherlands	150	18.5	123.09	111.67
Bolivia	2	0.2	86.96	78.89
Totals and Averages	5,974	762.9	127.70	115.85

1/Revised preliminary data.
2/Preliminary data.
Source: Boletin de Embarques, Banco Central de Chile, Departamento de Comercio Exterior Seccion Exportaciones, February 1961.

In March the three modern fishing boats brought to Chile for experimental fishing under a U. S. International Cooperation Administration contract moved to Iquique to fish for a fishing company in that port. Each trawler has about 70 tons capacity and is equipped with all the modern fishing aids. (United States Embassy in Santiago, March 7, 1961.)

Note: Also see Commercial Fisheries Review, March 1961 p. 49.

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FISHING FLEET RECONSTRUCTION AIDED BY FINNISH EXPERT:

A Finnish boat-building expert who has been aiding the Ceylonese fishing industry under the auspices of the Food and Agriculture Organization was detailed to Chile for three months after the earthquakes and tidal waves struck that country in May 1960, to aid in rebuilding the southern Chilean fishing fleet. His task was to organize the building of 400 small fishing boats and build them better than before.

A check of the southern Chilean shipyards showed that the builders were again building large rowboats, which are traditionally used for fishing and transportation among the islands of southern Chile, one of the largest archipelagos in the world.

Chile (Contd.):

"These boats have room for passengers, but not for fishing," the Finnish expert stated. So he modified the boats by designing an 8½-meter (27.9 feet) fishing boat, with a high bow and large open space to take in nets.

However, still with the idea of proving what mechanization can do when coupled with traditional methods of fishing, even using something as unlikely as a rowboat, the expert recommended that 30 two-man rowboats be equipped with outboard engines and nylon nets and that the results be recorded.

"I estimate that the catch nearly will double with one nylon net," said the Finnish expert. "The catch will more than double when a 5-hp. engine is added and it will go up 7 times when three nylon nets and a 10-hp. engine are used. The outboards will enable the rowboats to get to better and farther fishing grounds," he added.

Denmark

FISH MEAL AND SOLUBLES PRICES, FEB. 26-MAR. 4, 1961:

Export prices for Danish herring meal were being quoted at 725-790 Danish kroner per metric ton (US$95.37-103.92 a short ton) f.o.b. Esbjerg, during the week of February 26-March 4, 1961. One large shipment of fish meal to Poland brought 895 kroner a ton ($117.74 a short ton).

There were no export sales of fish solubles during the week ending March 4, 1961, but during the preceding week a substantial shipment was made to West Germany at an export price of 520 kroner per ton ($68.40 a short ton). (United States Embassy, Copenhagen, March 20, 1961.)

France

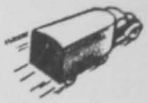
FISH MEAL AND OIL PRICES, DECEMBER 1960:

Average fish meal and oil prices reported for December 1960 by the head of the French Fish Meal Manuafacturers Association were as follows:

	Protein Content (%)	NF/Metric Ton	US$/Short Ton
Fish Meal:			
French fish meal 1/	55	450	82.81
" " " "	60	500	92.01
" " " "	65	600	110.41
Peruvian fish meal 2/	60-65	520	95.69
Angola fish meal 2/	65	550-570	101.21-104.88
Norwegian herring meal 2/	73	730	134.33
	Fatty Acid Content (%)	NF/Metric Ton	US$/Short Ton
Fish Oil:			
French oil (herring, dark)	10	550	101.21
" " " light)	5-6	600	110.41

1/Ex-plant loaded aboard car or truck, 15 metric tons minimum.
2/Loaded aboard car French port, customs paid, 15 metric tons minimum.
Note: Values converted at rate of 4.93 new francs equal US$1.

(United States Embassy, Paris, January 16, 1961.)



German Federal Republic

REPORT ON WORLD-WIDE FISH MEAL PRODUCTION AND DEMAND:

A study of world-wide fish-meal production and demand has been made by the head of the Fisheries Section of the West German Food Ministry. The study was prompted by the fact that West Germany is the second largest consumer of fish meal in the world and that recent developments in the world market for fish meal have had a detrimental impact on the West German fishing trade.

After reviewing in his study the significance of fish meal for feeding purposes and of fish flour for human consumption, as well as postwar production developments, the head of the Fisheries Section arrived at the conclusion that until 1959 the world supply of fish meal was about 100,000-200,000 metric tons a year short of demand. In his opinion, this shortage was responsible for the relatively high fish-meal prices which prevailed until 1959. In spite of the upswing in world production of fish meal, caused primarily by expanded production in Peru beginning in 1959, he believes it is doubtful that there is actually an oversupply of fish meal in the world market. He attributes the slump in fish-meal prices which began in early 1960 primarily to ruinous competition among Peruvian exporters, and he believes that increasing demand will probably cause fish-meal prices to rise again in 1961, although not to preslump levels.

In his analysis of future developments, the head of the Fisheries Section states his belief that world fish-meal production will continue to rise, not only because countries with highly developed fisheries will increase the utilization of fish offal for reduction purposes, but primarily because developing countries with plans for expanding their fisheries will find fish-meal production the easiest way of utilizing their catches. He believes that demand for fish meal will increase also, but that fish meal will have to meet competition from vegetable-protein feeds (for instance, soya meal), enriched by synthetic amino acids and vitamin concentrates. He states that price will determine the future sales of fish meal, and quotes experts as saying that fish meal, delivered c.i.f. European seaport, will probably find a price ceiling of about $100-110 per metric ton.

In his opinion, fish-meal producers should make special efforts to open up new markets for fish meal (for instance, in Spain, Yugoslavia, Greece, and Israel) and that the production of fish flour should receive more attention. The German official is finally of the opinion that the more advanced

German Federal Republic (Contd.):

fishery nations, particularly those in Europe, will have to adapt themselves to future developments by utilizing their fish catches primarily for human consumption and by restricting fish meal production to the processing of fish offal and whatever landings cannot readily be absorbed by the market.

In advancing the opinion that the catching of fish solely for reduction purposes will eventually cease to be a profitable business for the more advanced fishery countries, particularly those in Europe, the West German expert apparently believes that the more developed countries cannot compete in this field with the developing countries.

Despite the difficulties which prompted this study, West Germany has so far not taken any measures to cope with the problems which have arisen for its fishery trade and its fish-meal industry as a result of the price slump following the expansion of Peruvian fish-meal production. Although only recently the West German Deep-Sea Trawlers Association again requested the Government to introduce an import levy for fish meal to operate in the same manner as the levy for grain, the German Federal Government, according to trade sources, has delayed action because it wanted to negotiate first with Peru, and also because there has been a certain opposition from the farmers against raising the price of fish meal. (United States Consulate, Bremen, March 3, 1961.)

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FISH MEAL PRICES, MARCH 10, 1961:

Prices reported at Hamburg Commodity Exchange as of March 10, 1961, for fish meal delivered ex-Hamburg warehouse, or c. & f. West German sea port (see table).

Fish meal prices on the Hamburg exchange on March 10, 1961, were somewhat lower for both domestic and imported fish meal on prompt delivery, but trended higher on futures. (United States Consulate, Bremen, March 13, 1961.)

Type of Fish Meal	Protein Content (%)	Delivery	DM/Metric Ton	US$/Short Ton
German fish meal	50-55	Mar.-May 1961	465	105.46
" " "	60-65	" " "	480	108.86
" " " std. brands	60-65	March 1961	572.50	129.84
Peruvian fish meal	65-70	prompt	435-440	98.66-99.79
" " "	65-70	Apr.-June 1961	455	103.19
Angola fish meal	65-70	prompt/Apr. 1961	535	121.34
Icelandic herring meal ...	63-68	Aug.-Oct. 1961	595	134.95
Icelandic cod meal	65-70	Mar. 1961	605	137.21
Danish herring meal	70-75	Apr.-June 1961	605	137.21

Note: Values converted at rate of 4.00 deutsche marks equal US$1.

Guatemala

JAPANESE-GUATEMALAN SHRIMP FISHERY PLANNED:

Preparations were being made in mid-February 1961 for two Japanese companies to establish a joint Japanese-Guatemalan firm to fish for shrimp off Central America. Experimental operations by a Guatemalan fishery company beginning December 1960 proved extremely satisfactory. Using 10 fishing boats of the 50-ton class (chartered Panamanian vessels), the shrimp catch was some 80 tons per month, several times as much as the yield of shrimp fishing in the East China Sea area.

The experimental operation was carried out under Japan's technical guidance and investment, and the fishing ground at its nearest point is 5-6 miles offshore where water is only about 10 meters deep. The cost of the operation is small. For the present, there is only a small cold-storage plant at Champerico, and its capacity is not large enough to take care of landings which have been far beyond expectation.

The new joint Japanese-Guatemalan fishery company is expected to be established in April-May 1961 with a capital of $1 million (49 percent supplied by Japanese and 51 percent by Guatemalan interests). Landings of 300 tons a month, using some 30 fishing vessels, or 3,500 tons per year are planned. (The Suisan Tsushin, February 18, 1961.)

Note: Champerico is on the Pacific Coast of Guatemala where shrimp fishing is good year-round.

Iceland

FISHING INDUSTRY LABOR DISPUTE SETTLED EXCEPT FOR WESTMAN ISLANDS:

The fishermen's unions at Reykjavik, Hafnarfjordur, and Akranes reached agreement with the motorboat owners on February 19, 1961, regarding wage and share terms which cover primarily the inshore spring cod and haddock fisheries. The only remaining labor trouble as of February 23 in the industry was in the Westman Islands. The settlement conformed to the agreement reached January 24 as the result of countrywide bargaining, with a few minor adjustments covering local conditions.

During the month-long labor dispute, many of the fishermen signed on vessels in other towns and the vessel owners in the Reykjavik, Hafnarfjordur, and Akranes areas were unable to find sufficient crewmen. (United States Embassy, Reykjavik, February 23, 1961.)

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GOVERNMENT RESOLUTION TO SETTLE FISHING LIMIT DISPUTE WITH BRITISH:

On February 27, 1961, the Icelandic Government submitted for Althing approval a resolution authorizing the Government to settle the dispute with the British over fishing limits. The four main points of the resolution are:

(1) Britain recognizes immediately the 12-mile fishery zone of Iceland.

(2) Britain recognizes important changes in the base lines in four places around the country which extend the fishery zone by 5,065 square kilometers.

(3) British vessels will be permitted to fish within specific areas between the 6- and 12-mile limits for a limited length of time each year during the next three years.

(4) The Government of Iceland declares that it will continue to work for implementation of the parliamentary resolution of May 5, 1959, regarding the extension of the fisheries jurisdiction around Iceland, and that any dispute on actions that may be taken be referred to the International Court of Justice. (United States Embassy, Reykjavik, March 7, 1961.)

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REGULATIONS ON TRAWLING WITHIN 12-MILE FISHING ZONE ISSUED:

The Government of Iceland has issued new trawling regulations applicable both to foreign and Icelandic vessels for the waters off Iceland, effective March 11, 1961. These regulations are complicated, but in essence, where British trawlers have gained advantages, Icelandic trawlers have been given at least comparable treatment. Trawling by vessels of all other nations must take place outside the 12-mile fishing limits. Changes in base lines, allowed by the British agreement, have pushed the 12-mile limits seaward, embracing an additional 5,065 square kilometers of fishing grounds.

The Government instructed the Icelandic Coast Guard to deal leniently with non-British vessels which might engage in trawling within the new protected area set up by the bilateral agreement between Iceland and Great Britain. The Coast Guard charged the British fishing vessel Othello of Hull with trawling within the protected area on March 19. The vessel was brought to Reykjavik and fined the equivalent of over US$6,000. Its catch and fishing gear also were confiscated. However, the trawler captain has appealed the case to the Icelandic Supreme Court, the United States Embassy in Reykjavik reported on March 24, 1961.

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TRAWLER OWNERS CONTINUE AGREEMENT NOT TO LAND FRESH FISH IN BRITAIN:

The Icelandic Trawler and Fishing Vessel Owners continued their voluntary agreement not to land fresh fish in British ports, despite the settlement on March 11, 1961, of the fisheries dispute with Great Britain with reference to Icelandic fishing limits.

The Icelandic press reported that the British Trawler Officers Association has threatened to go on strike if Icelandic vessels began fresh fish landings. The Association had demanded that the British Government offer assurances that Iceland would not further extend its fishing limits, states a March 24, 1961, dispatch from the United States Embassy in Reykjavik.

Japan

CONSTRUCTION OF TUNA VESSELS CONTINUE INCREASE:

Japanese construction of pelagic tuna vessels continues to increase and every shipyard has more orders than they can handle. The two shipyards in Shimizu, Shizuoka Prefecture, are building more than half of the tuna vessels being constructed in Japan.

In 1960 one of the shipyards in Shimizu constructed 28 vessels (9,740 tons), of which 26 were tuna vessels. The second shipyard built 39 vessels (12,450 tons), of which 26 (9,190 tons) were tuna vessels. The construction of tuna vessels by the two shipyards in 1960 was 60 percent greater than the 33 vessels (11,400 tons) built in 1959. These tuna vessels are of the 300-ton class, and the vessel owners are located in Shizuoka Prefecture, including Yaizu and Omaezaki, also in Ibaragi and Kanagawa Prefecture.

The construction of tuna vessels after World War II became active in 1947 and 1948 to replace those that became useless or were sunk during the war. It was called the first construction boom of tuna vessels. The second boom occurred in 1952 and 1953 when the MacArthur Line was abolished and building of larger fishing vessels became possible under a new law; and 10,000 tons to 18,000 tons of tuna vessels were built in Japan.

The third boom arrived in 1956 with the development of the fishing grounds in the Indian Ocean in 1955, and larger vessels became the rule. The average vessel tonnage rose from 370 tons in 1953 to 500 tons in 1956 when 18,000 tons were built.

The present boom began in 1959, reflecting the favorable conditions of the industry in general and coincided with the replacement of vessels constructed after the war. In that year in Japan, a total of 76 tuna vessels (25,000 tons) were launched. The development of fishing grounds in the Atlantic and a decline in salmon fishing and Antarctic whaling encouraged the tuna vessel boom and the increase in the prices of fishing-vessel rights accelerated it.

Three years have elapsed since the beginning of the last tuna-vessel building boom, and signs indicate that it will continue unless there is a business setback.

So far orders for more than 60 vessels have been received at both Shimizu shipyards this year, and conditions are such that no space is available for setting up another keel before the end of the year. How to handle orders that are expected for the balance of this year is said to be a problem for those in charge of construction work at the shipyards. (Fisheries Economic News, March 4, 1961.)

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INDIAN OCEAN BLUEFIN TUNA FISHING POOR:

Concern is being expressed over the unexpected poor fishing by Japanese tuna vessels for Indian bluefin tuna in the Indian Ocean and in the waters off the Java coast and to the west of Australia. This fishery for Indian bluefin tuna, which is highly prized on the Japanese market as "sashimi" (raw fish cut in thin slices and flavored with soy sauce), normally starts in October and extends to April of the following year.

According to reports, poor fishing during the early part of the current season has compelled many vessels to remain on the fishing grounds for longer periods, as long as 20 days, thereby compelling them to miss the profitable New Year's trade. Catches in late November to mid-December are said to have averaged less than three metric tons a day, or about half of what they were a year ago.

Fishing picked up in late December, with catches averaging about 6 metric tons a day per vessel; catches then dropped to about 3 metric tons a day in early January, increased to 10 metric tons in mid-January, and dropped drastically in late January. Fishermen believe that this 10-day cyclical change in fishing conditions may be associated with the moon-phase. They claim that catches fell drastically on moonlit periods.

Due to the difficulty in finding good fishing grounds and fluctuating catches, some of the larger long-line vessels engaged in this fishery switched to the big-eyed tuna fishery east of 100° E. longitude, where catches of 10 metric tons a day of big-eyed tuna were reported.

However, exploratory fishing conducted by the Shizuoka prefectural research vessel Daifuji Maru in the area south of 35° S. latitude indicates that catches may fluctuate periodically but bluefin should be available over a wide area until April. (Nippon Suisan Shimbun, February 13, 1961.)

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NORTH-BORNEO TUNA FISHING ENTERPRISE TO EXPAND:

The Japanese fishery firm engaged in a North Borneo-Japanese tuna-fishing enterprise is said to have decided to expand the operations established in cooperation with the British North Borneo Government in May 1960.

The Japanese-North Borneo enterprise was established with 100 percent investment by the Japanese firm at a base on a small island, using the Ginyo Maru, freezer-factoryship of the 4,000-ton class, and six skipjack hook-and-line boats of the 35-ton class. The catch is processed into dried skipjack sticks and exported to Ceylon.

The Japanese firm intends to strengthen operations on land as well as at sea and early in 1961 a cold-storage facility was planned for the base and a new fishing ground may be developed using a purse-seiner of the 160-ton class. The cold-storage facility will have a capacity of 60 tons and ice-making

Japan (Contd.):

capacity of 20 tons a day. Since the use of small skipjack hook-and-line vessels limits the efficiency of the operation, the skipjack purse seiner (Taiho Maru) will be added and experimental fishing will be carried out in the the Sulu Sea and around the island base. If successful, the Japanese company intends to replace the inefficient small vessels with larger vessels. (Fisheries Economic News, January 3, 1961.)

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JAPAN-URUGUAY TUNA FISHING ENTERPRISE:

The Eikyo Maru, 300 tons, belonging to a large Japanese fishery firm, left Tokyo for Uruguay early in 1961 to participate in joint tuna fishing between another Japanese fishery firm and a Uruguay fishing group. It was scheduled to arrive at its destination in mid-February 1961. The vessel was expected to start tuna fishing with a base at Montevideo under a 3-year contract and to land some 1,000 metric tons, principally yellowfin and albacore, per year. (The Suisan Tsushin, January 4, 1961.)

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TUNA FISHING TRENDS IN THE ATLANTIC OCEAN:

The Kanagawa Prefecture Fisheries Experimental Station in Japan reported on tuna fishing conditions in the Atlantic Ocean as experienced by Japanese fishing vessels.

According to the report, tuna fishing in the Atlantic is carried out by an increasing number of vessels. The Japanese began fishing in the Atlantic in 1956. In 1959, 36 Japanese vessels operated in the Atlantic and the number increased to 50 in 1960. The increase in vessels fishing in the Atlantic is attributed (1) to the fact that tuna fishing, both in the Pacific and Indian Ocean, is believed to have reached its saturation point and (2) larger vessels of up to 1,000 tons are capable of fishing in distant waters.

In 1960, the fishing grounds in the eastern section of the Atlantic yielded a catch rate of 7.5-11.25 tons per trip in the beginning, but the rate dropped to 4.5-4.9 tons. In the western region of the Atlantic, the catch rate also started to decline in 1957. The absolute quantity of tuna decreased while the number of vessels fishing increased. In 1961, the Japanese plan to conduct research in the Atlantic to determine the causes for the decreasing catch rates and also study the biology of Atlantic tuna.

The principal landing ports for tuna caught by Japanese vessels fishing in the Atlantic are Freetown (Guinea), Montevideo (Uruguay), Las Palmas (Canary Islands), Venice (Italy), Cristobal (Canal Zone), and others. (Japanese newspaper, March 3, 1961.)

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FISH-SAUSAGE MAKERS ASK FOR MORE TUNA:

The Japanese Fish Sausage Association has thrown its support to the Tuna Mothership Council in its bid to obtain a larger tuna quota. The Association is asking for an increase in the tuna mothership quota and that the increase be set aside for fish-sausage production.

According to the Association, production of fish sausage in 1955 totaled 9,417 metric tons and in 1959, 71,516 metric tons. Production in 1960 will likely be over 85,000 metric tons; in 1961 over 100,000 metric tons. Use of tuna as an ingredient for fish sausage has increased from two percent of total tuna landings in 1954 to over 20 percent (14,300 metric tons) in 1959. Supplies are becoming increasingly inadequate. Thus, the Government should authorize increases in the tuna mothership quota, and such increases utilized for fish-sausage production. (Shin Suisan Shimbun Sokuho, February 15, 1961.)

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EXPORTS OF FISHERY PRODUCTS, 1960:

In 1960, Japan exported a total of 175,627 metric tons of fishery products other than canned, valued at US$58.4 million. The United States, the greatest single customer for those products, bought 45 percent of the total, or 79,087 tons valued at US$28.8 million. In addition, Japan exported 131,074 metric tons of canned fishery products, valued at US$116.2 million. The United States again was the most important single buyer and bought 22 percent of the total, followed closely by the United Kingdom with 17 percent (see table 1).

In 1960, Japan also exported 234 million pounds of marine oils valued at US$23.7 million. The leading buyers were the Nether-

Japan (Contd.):

Table 1 - Japan's Exports of Principal Fishery Products, by Country of Destination, 1960

Product and Country of Destination	Quantity	Value	
	Metric Tons	1,000 Yen	US$1,000
Fish and Fish Products, Crustaceans and Molluscs, not in Airtight Containers:			
United States	79,087	10,387,483	28,838
Ryukyu Islands	6,842	616,625	1,712
Hong Kong	2,210	856,196	2,377
Formosa	684	120,915	336
Malaya	323	45,770	127
Singapore	1,274	206,774	574
Burma	2,101	121,819	338
United Kingdom	2,262	884,158	2,455
Italy	19,393	1,544,216	4,287
Canada	1,832	317,422	881
Puerto Rico	6,301	706,211	1,961
Hawaii	2,745	546,855	1,518
American Samoa	11,685	1,132,560	3,144
Others	38,888	3,552,184	9,862
Total	175,627	21,039,188	58,410
Fish and Fish Products, Crustaceans and Molluscs, in Airtight Containers:			
United States	29,329	10,392,174	28,851
Ryukyu Islands	4,077	476,706	1,323
Hong Kong	1,127	140,648	390
Malaya	1,811	188,483	523
Singapore	2,220	254,874	708
Philippines	14,912	1,873,038	5,200
Indonesia	541	63,668	177
Burma	2,381	211,768	588
Ceylon	3,407	365,683	1,015
Saudi Arabia	333	81,669	227
Sweden	350	195,320	542
United Kingdom	24,421	16,572,166	46,008
Ireland	491	206,001	572
Netherlands	2,167	707,525	1,964
Belgium-Luxembourg	4,942	1,463,577	4,063
West Germany	6,892	1,578,614	4,383
Switzerland	1,361	362,837	1,007
Italy	363	115,194	320
Canada	3,040	859,011	2,385
U. A. R. (Egypt Region)	4,250	592,002	1,644
Ghana	2,995	450,837	1,252
South Africa	326	134,515	373
Australia	3,758	1,567,124	4,351
Hawaii	385	184,329	512
Others	15,195	2,802,708	7,781
Total	131,074	41,840,471	116,159

lands, West Germany, United Kingdom, Belgium, Sweden, in order of importance. The United States was not as important a buyer as the countries mentioned (table 2).

Table 2 - Japan's Exports of Marine-Oils, by Country of Destination, 1960

Product and Country of Destination	Quantity	Value	
	1,000 Pounds	1,000 Yen	US$ 1,000
Oil from Fish and Marine Animals:			
United States	3,508	764,759	2,123
Lebanon	60	4,228	95
Norway	1,016	88,618	246
Sweden	11,291	367,807	1,021
United Kingdom	52,279	1,715,017	4,761
Netherlands	72,122	2,276,339	6,320
Belgium	33,702	1,050,095	2,915
France	471	269,108	747
West Germany	52,786	1,604,347	4,454
Canada	59	29,396	82
Others	6,743	319,581	888
Total	234,037	8,519,295	23,652

Japanese exports of canned fishery products to the United States in 1960 were 31.1 percent below those for 1959. On the other hand, total exports for the same period were down only 10.4 percent.

Japan's total shipments of fish and shellfish other than canned in 1960 were up 8.4 percent as compared with 1959, but exports to the United States dropped 4.7 percent (table 3). On the other hand, exports to countries other than the United States were up 22.2 percent.

Japan's exports of fish and marine animal oils to the United States in 1960 were only

Japan (Contd.):

Table 3 - Japan's Exports of Principal Fishery Products, 1959-60

Product and Destination	1960			1959		
	Quantity	Value		Quantity	Value	
	Metric Tons	1,000 Yen	US$ 1,000	Metric Tons	1,000 Yen	US$ 1,000
Fish and Fish Products, Crustaceans and Molluscs, not in Airtight Containers:						
United States	79,087	10,387,483	28,838	83,061	10,523,453	29,207
All Others	96,540	10,651,705	29,572	78,985	9,013,037	25,015
Total	175,627	21,039,188	58,410	162,046	19,536,490	54,222
Fish and Fish Products, Crustaceans and Molluscs, in Airtight Containers:						
United States	29,329	10,392,174	28,851	42,568	15,075,258	41,840
All Others	101,745	31,448,297	87,308	103,731	29,673,384	82,355
Total	131,074	41,840,471	116,159	146,299	44,748,642	124,195

Table 4 - Japan's Exports of Marine Oils, 1959-60

Product and Destination	1960			1959		
	Quantity	Value		Quantity	Value	
	1,000 Pounds	1,000 Yen	US$ 1,000	1,000 Pounds	1,000 Yen	US$ 1,000
Oil from Fish and Marine Animals:						
United States	3,508	764,759	2,123	3,405	663,923	1,843
All Others	230,529	7,754,536	21,529	224,951	7,815,573	21,691
Total	234,037	8,519,295	23,652	228,356	8,479,496	23,534

slightly greater than in 1959. Total exports were up 2.5 percent (table 4). (Monthly Return of the Foreign Trade of Japan, Ministry of Finance, Tokyo, December 1960 and December 1959.

Note: Values converted at rate of 360.2 yen equal US$1 in 1960 and 360.3 yen equal US$1 in 1959.

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FISH-MEAL PRICES, NOV.-DEC. 1960 AND JAN. 1961:

Average wholesale and export fish-meal prices for January 1961 and revised wholesale prices for November and December

Japanese Fish-Meal Prices, Nov.-Dec. 1960 and January 1961

	Domestic Wholesale Prices		Export Price (f.o.b.)	
	US$ Per Metric Ton	US$ Per Short Ton	US$ Per Metric Ton	US$ Per Short Ton
1961:				
January . .	2/160.00	145.15	1/	1/
1960:				
November	2/157.50	2/142.88	138.00	125.19
December	2/158.06	2/143.39	136.80	124.10

1/Not available. 2/Revised.

1960 quoted by the Aquatic Oils Association of Japan are shown in the table. (United States Embassy, Tokyo, February 27, 1961.)

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PERMISSION TO IMPORT FISH SOLUBLES FROM U. S. REQUESTED:

A Japanese grain company in February 1961 filed an application with the Ministry of International Trade and Industry (MITI) to import 1,000 tons of fish solubles from the United States at a price of $80.55 per metric ton c.i.f. MITI is studying the proposal carefully since it bears some connection with fish-meal imports. There is also the problem of dollar allocations, which would have to come from the 1961 budget.

Fish solubles for animal feed presently sell for 26,000 yen (US$72.22) a metric ton in Japan. This is somewhat cheaper than imports. However, demand for animal feed is expected to increase, and it is felt that a profit can be made even after paying higher prices for imports.

Production of fish solubles in 1960 is reported to be 450 tons from fish-meal factory-ships, 15,000 tons from coastal meal operations, plus an additional 250 tons from miscellaneous sources. Domestic animal-feed producers utilized most of the production but some quantities were exported to Formosa and Okinawa. (Nippon Suisan Shimbun, February 20, 1961.)

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OVERSEAS FISHERY OPERATIONS FOR 1960:

According to a list of Japanese overseas fishery operations (as of December 1, 1960) compiled by the Japanese Fisheries Agency, the number of such enterprises was the highest recorded since World War II. It is expected that the number reported in 1961

Japan (Contd.):

will be even greater. (The Suisan Tsushin, February 17, 1961.)

The development of fisheries overseas in 1960 was as follows:

Japanese Overseas Fishery Operations as of December 1, 1960		
Country	Type of Operation	Types of Fishery
Brazil	Joint investment	Tuna, whale
Brazil	Sale of fish	Tuna
Argentina . .	Chartered vessels	Trawling
Cuba	Sale of fish	Tuna
Thailand . .	Fishing labor	Trawling
Ceylon . . .	Fishing labor	Tuna, stick-nets, hook and line
Ceylon . . .	Sale of fish	Tuna
Malaya . . .	Sale of fish	Tuna
Ryukyu . . .	Chartered vessels	Mackerel hook and line
Ryukyu . . .	Chartered vessels	Tuna
North Borneo.	Capital investment	Skipjack cold-storage and processing
North Borneo.	Chartered vessels, sale of fish	Skipjack purse seine
North Borneo.	Chartered vessels	Trawling
Philippines .	Fishing labor	Coastal Fisheries
Iran	Chartered vessel	Trawling
Italy	Sale of fish	Trawling
Italy	Fishing labor	Purse seine, tuna
Netherlands .	Joint whaling operation	Freezer-carrier
Tonga	Fishing labor	Coastal fisheries
Israel	Sale of fish	Tuna

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OYSTER PACKING SEASON BEGINS:

The Japanese packing season for canned oysters in the Hiroshima area began early in March. This year's pack is expected to total 8.3 million pounds or 220,000 actual cases (100,000 cases of "smoked" and 120,000 cases of "boiled"). Including 40,000 cases (10,000 cases of "smoked" and 30,000 cases of "boiled") planned to be packed in the Sanriku area, the total Japanese pack will be 260,000 cases.

Packing oysters.

There are 70,000 cases of "smoked" on hand from last year's pack. This means that the amount available for marketing this year will be 330,000 actual cases (180,000 cases of "smoked" and 150,000 cases of "boiled"). (Suisan Tsushin, March 9, 1961.)

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APPLICATIONS FOR TRAWLING SOUTH OF ALASKA PENINSULA REJECTED:

The Japanese Fishery Agency has rejected applications for permits to Japanese trawling firms to fish in waters south of Alaska Peninsula. These applications were filed late in 1960 by the leading Japanese fishing firms. The reason for rejecting the applications was the possibility of the trawling operations catching halibut.

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PLAN TO FISH HERRING AND BOTTOMFISH SOUTH OF ALEUTIAN ISLANDS:

Four large Japanese fishery firms are planning to send fleets to fish herring and bottomfish south of the Aleutian Islands during the fishing season beginning in April. The Japanese industry wants to limit the participants to the three companies that carried out experimental operations last year. One of the companies is said to be making preparations for herring fishing with a freezer-mothership of the 2,000-ton class even if authorities are not inclined to permit bottomfish fishing. (Suisan Tsushin, March 9, 1961.)

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SARDINE PACK QUOTA FOR 1961 SET:

The Japanese sardine packers association held its directors meeting in February 1961 and approved 1961 regulations. The regulations are almost identical to those for 1960 and the total pack quota for sardines is 1,005,000 cases--525,000 cases for the fixed base quota, 225,000 cases for the free-based quota, 5,000 cases for the newcomers, and 250,000 cases for the reservation quota. The limit for each member's use of the free-base and reservation quotas is 10,000 cases. (The Suisan Tsushin, February 23, 1961.)

Liberia

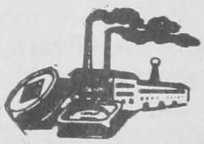
JAPANESE FIRM TO BUILD FISH STORAGE AND PROCESSING FACILITIES:

One of the largest Japanese fishing companies, in combination with European and Liberian interests, is preparing for the establishment of a large fish-processing and storage facility in Monrovia, Liberia. To be built for an estimated US$1 million, this facility will service a fleet of between 17 and 23 tuna vessels operating in West African waters.

Plans call for construction of a $400,000 processing and freezing plant with a daily processing capacity of 20 tons of frozen tuna, and a frozen storage capacity of 2,000 tons. It will also include an ice-making plant to supply the vessels. The facility will take 18 months to build and, when completed, will employ 5 Japanese and 35 or more Liberians. Eventually it is hoped that the plant will handle as much as 20,000 tons of fish per year with a commercial value of $4 million or more.

Pending completion of its new plant, the Japanese firm has already begun limited operations in Liberia based on use of a mothership now berthed at the Free Port of Monrovia. This ship is being fed by 4 or 5 vessels now fishing off the Liberian coast. This fishing fleet will be increased gradually as the new plant approaches completion, at which time the mothership will be withdrawn.

The plant will be located on about 2.5 acres of reclaimed land inside the north breakwater of the Free Port, about a quarter mile from shore. In addition to the production facility, this area will include office and living quarters for the administrative staff as well as a 20-bed rest home for the crews of the fishing fleet, and a Diesel-electric plant to provide a completely self-contained operation. Eventually the firm may even build its own dry-dock for repair of its vessels from the entire West-African Coast. The Japanese firm for the last three years has operated this fleet of up to 23 vessels from a base in Sierra Leone. (United States Embassy in Monrovia, March 22, 1961.)



Mexico

SCIENTISTS FIND FISH FLOUR PROMISING AS AN ADDITIVE TO FOODS:

A group of doctors headed by the Director, Hospital Infantil de Mexico, for the past several years, has been experimenting with deodorized whole fish flour as an additive to diets for human consumption. Some of their conclusions to date are:

Metabolic Balance Studies: "Although it is still necessary to compare a larger number of cases, what has been observed so far is a clear evidence of the high biological value of fish flour to enrich a poor quality basal diet."

Clinical Studies: "The results of the clinical study may be summarized: (1) Adding fish flour complement to the normal diets we gave to malnourished children did not modify the satiety index. (2) The expected tendency of the growth curve was not changed. (3) No allergic manifestations resulted. (4) No toxic manifestations resulted."

Dietetic Study: "So far, 2,800 different assays have been carried out with the following results:

"We could not find a practical way to add fish flour to infants' formulas, whatever the mixture used in their preparation: broths prepared with cereals, vegetables, etc.

"We found it possible to add, in varying percentage, fish flour to soups, beans, hard biscuits, cereals, tortillas, bread, pureed vegetables."

"The percentage we have, so far, found practical are: corn meal (for tortillas) 5 to 7 percent, bread 10 percent, beans 5 to 7 percent, noodles 10 to 15 percent, hard biscuits 10 percent, cereals 5 percent, doughnuts 10 percent, and pastries 10 percent."

"Fish flour may be added to corn meal before it is ground. To hard biscuits, it is easily added at the bakery during the baking process. To noodles (dry doughs for soups) it may also be added during the process of preparation. The complement may be added to beans after cooking, or after they are ground and ready for frying."

"The stability of foods treated with fish flour has been found indefinite for hard biscuits and noodles. The stability is less for foods of immediate consumption, such as tortillas, bread, purees, soups, beans, pastries, etc.; but it is sufficiently good to permit the easy and tasteful consumption on the same day of preparation, or on the next one."

"As fish flour is not detected in any of the foods mentioned, or at the most, there is a slight darkening of the usual color, the human groups (adults and children) in whom we tested the acceptancy, did not become aware they were consuming food with varying percentages of the complement added to it."

In another section of the report the doctors state:

"However, we believe we are on the verge of reaching a feasible and practical solution with the use of a complement of high biological value, and great nutrient power, which would be added to basic foods without changing their taste or their odor, but that would remarkably reinforce the values of the diet. We are referring to deodorized fish flour." (United States Embassy, Mexico, D. F., March 7, 1961.)

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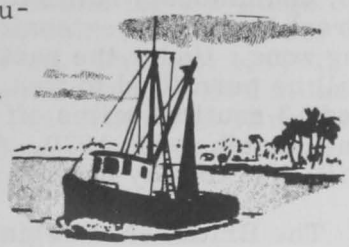
SHRIMP FISHERY TRENDS, JANUARY-MARCH 1961:

Excellent shrimp landings by the Salina Cruz (Pacific Coast) shrimp fleet and con-

Mexico (Contd.):

tinued northers in the Gulf of Mexico, which have hampered operations of the Carmen-Campeche fleets, have been the highlights on the Mexican shrimp scene during January-February 1961.



Shrimp boat.

Salina Cruz trawlers were reported to be landing from 4 to 6 metric tons of headless shrimp per trip. Trips are usually about 12 days.

At Carmen and Campeche landings averaged about 1,000 and 1,500 pounds of headless shrimp each trip with pinks predominating. A continual succession of northers

Shrimp Ex-Vessel Prices at Carmen and Campeche (All Species), January 5, 1961, and March 1, 1961

No. Headless Shrimp Per Lb.	January 5, 1961	March 1, 1961
	(U.S. Cents Per Lb.)	
10-14	53	56
15-20	52	54
21-25	47	49
26-30	43	44
31-35	38	39
36-40	33	34
41-50	28	29
51-65	23	24
Over 66	18	19

slowed down fishing operations. Conditions were not expected to improve much until April. Ex-vessel prices at Carmen and Campeche increased from 1 to 3 U. S. cents a pound since early January 1961. (United States Embassy, Mexico, D.F., March 6, 1961.)

Morocco

FISH MEAL AND OIL EXPORT PRICES, DECEMBER 1960:

Prices for fish meal and oil in Morocco are not readily available. Some indication of fish meal and oil prices can be obtained from the data supplied by the Office Cherifien de Controle et d'Exportation which represent official customs statistics. Prices are f.o.b. the Moroccan ports from which the product was shipped and are those assigned by the Customs authorities for imposition of an export tax. They do not necessarily represent actual prices paid for the product.

Average Moroccan Export Prices for Fish Meal and Oil, December 1960

Product & Destination	Average Export Prices	
	Mf/Metric Ton	US$/Short Ton
Fish Meal:		
Switzerland	1/172,000	308.38
Mali	1/170,000	304.78
Madagascar	71,933	128.21
Algeria	60,198	107.29
Spain	52,410	93.41
Singapore	49,004	87.35
France	47,250	84.22
Poland	32,000	57.03
Fish Oil:		
Denmark	55,003	98.03
Germany	53,229	94.87
Holland	36,132	64.40

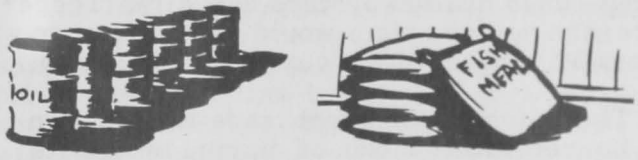
1/Presumably edible fish flour.
Note: 506 Moroccan francs equal US$1.

No distinction is made in Customs nomenclature between fish meal and edible fish flour. (United States Consulate, Casablanca, February 23, 1961.)

Netherlands

FISH MEAL AND OIL INDUSTRY AND MARKET, 1959-60:

The average import price in the Netherlands for fish-body oil at the end of October 1960 was $153 per long ton (6.9 cents a pound). During the same period, fish meal (protein about 70 percent) prices were about fl. 245 (US$64.93) a metric ton.



A 5.5-percent turnover tax is levied on the imported value of fish meal, the same tax levy as on domestically-produced fish meal. There are no other duties or quantitative restrictions on the imports of fish meal and fish oil.

The Netherlands fish meal and oil reduction industry uses conventional production methods. The Netherlands fishing fleet does not catch fish especially for reduction. Reduction plants obtain fish when they cannot be sold for human consumption.

There are three reduction plants in the Netherlands, located at Ymuiden, Rotterdam, and Son.

The United States is the largest supplier of fish oil to the Netherlands. Fish-oil im-

Netherlands (Contd.):

ports from the United States in 1959 amounted to 12,000 metric tons or 57 percent of the total fish-oil imports of 21,000 tons, and in the first half of 1960 totaled 7,500 tons or 68 percent of the total imports of 11,000 tons. The Netherlands margarine and soap industries are the principal buyers of fish oil. Because the United States already supplies such a large portion of the Netherlands fish-oil requirements, there is not much opportunity for expansion of United States fish-oil exports to the Netherlands. (United States Embassy, The Hague, November 10, 1960.)

Note: Values converted at the rate of one guilder (fl.) equals US$0.265.

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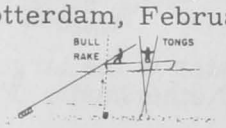
GOVERNMENT AID PLANNED FOR OYSTER AND MUSSEL CULTIVATION:

The Netherlands Government has decided to go ahead with plans for a 9-million-guilder (US$2,386,000) salt-water basin in the Veerse Gat, Zeeland estuary, for the cultivation of an estimated 10 million oysters a year to compensate for the loss of existing oyster-breeding grounds when the giant Delta Plan reclamation works are carried out in Zeeland province. Cultivated Dutch oyster and mussel exports are valued at about 15 million guilders (US$3,977,000) annually. Production of cultivated oysters averages about 20-25 million oysters annually. Therefore, the new program would provide for only about 50 percent of the current annual crop.

The Dutch Government made its decision on the recommendation of marine biologists who recommended the construction of a basin with a surface area of eighty hectares (197.7 acres).

Construction of the artificial basin will start next year and it will be 1969 or 1970 before it is known whether the new form of oyster cultivation will be a commercial success. The necessary bills have been submitted to Parliament.

The mussel cultivation, which is now located in the same Zeeland area as that now used for oyster cultivation, will be moved to the northern part of the Netherlands in the Wadden Zee. (United States Consulate, Rotterdam, February 20, 1961.)



Norway

AGREEMENT WITH BRITAIN ON EXTENSION OF NORWAY'S FISHING LIMITS APPROVED:

The Norwegian Parliament, on February 13, unanimously ratified the agreement with Great Britain on extension of Norway's fishing zone. Under the pact, British trawlers will be permitted to fish in a zone between 6 and 12 nautical miles off the Norwegian coast until October 31, 1970. After that date, they will have to stay outside the 12-mile limit.

The British-Norwegian agreement is contingent on Parliamentry approval of a Government bill proposing a two-stage extension of the fishery zone off the Norwegian coast and the island of Jan Mayen. The bill calls for extending the limit from 4 to 6 nautical miles on April 1, 1961, and from 6 to 12 miles on September 1, 1961. In this connection, the Government has requested a supplementary appropriation of Kr. 3,870,000 (US$541,800) to strengthen Norway's fishery enforcement service by chartering six whaling vessels. Equipped with guns, these vessels would be manned and operated by the Norwegian Navy. (News of Norway, February 23, 1961.)

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GOVERNMENT'S PROPOSED TRAWLER BAN CONTESTED:

Norway's Prime Minister, at a press conference early in March 1961, expressed hope that the Parliament's expanded Foreign Affairs Committee, which now is examining the Government bill on extension of the Norwegian fishery zone, would be able to work out a compromise on trawling inside the 6-mile limit. He said it was up to Parliament to evaluate the conflict of interest involved in the proposal that only trawlers of less than 300 tons be permitted to fish between 4 and 6 miles.

The proposal is endorsed by Norges Fiskarlag--the national association of fishermen. But, according to A/S Findus, the ban on larger trawlers would force a sharp cut in operations of the firm's big filleting and freezing plant at Hammerfest, now in the midst of a major expansion.

The fleet of 11 large trawlers supplying raw material for the Findus plant, it is asserted, get most of their catch inside of the 6-mile limit. The company's Director has warned that unless Findus trawlers are ex-

Norway (Contd.):

empted from the proposed ban on trawlers of more than 300 tons, the plant would have to curtail operations radically.

The Government bill calls for a 2-stage extension of the fishery zone off the Norwegian coast and Jan Mayen. On April 1, 1961, the limit would be extended from 4 to 6 miles, and on September 1, 1961, from 6 to 12 miles, subject to Parliament approval (News of Norway, March 9, 1961.)

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PROSPECTS FOR 1961 WINTER HERRING FISHING SEASON:

Norway's 1961 winter herring season is expected to yield the smallest catch since 1934 and may be the fourth successive year that the catch has been extremely small.

Winter herring furnish the raw materials for a large share of the fish-body oil and fish meal produced by Norway.

The 1961 catch is expected to be about 200,000 short tons--one-third below the poor catch of 1960 and the smallest since the near-failure in 1934. Unfavorable weather and difficulty in locating shoals of herring account for the expected small catch. In the mid-1950's, several winter herring catches exceeded one million tons.

A catch of 200,000 tons will supply but little raw material to byproducts processors. From 1955 through 1959 an average of 235,000 tons was used annually for purposes other than for oil and meal. Most of this tonnage was used for export as fresh herring and for home consumption after being salted and canned.

Disposition of Winter Herring in Norway from 1954 Through 1960

Year	Total Catch	Processed for Oil and Meal	Used for Other Purposes
	(1,000 Short Tons)		
1960 (est.)	330	155	175
1959	459	239	220
1958	381	196	185
1957	877	645	232
1956	1,263	1,006	257
1955	1,064	791	273
1954	1,204	974	230

Oil yield from the winter herring catch is normally around 10 percent, with fish caught early in the season usually having a higher oil content than end-of-the-season catches.

Norwegian fisheries experts believe that the shoals of winter herring spawning off the Norwegian coast are small from natural causes rather than excessive fishing. The experts also predict a continuation of the small stocks for 1 or 2 more seasons.

In 1956, Norway produced almost 25 percent of the 565,000-ton world output of fish oil. However, in 1960, because of the small winter herring catch, Norway's share of the 490,000-ton world production dropped to less than 10 percent. In 1950-54, Norway's share averaged 22 percent of world production and 17 percent in 1955-59. (Foreign Crops and Markets, March 13, 1961.)

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WINTER HERRING CATCH WORST SINCE 1934:

Norway's important winter herring fishery, so-called because it centers on high-priced fat herring, was called off at midnight February 28, 1961. The result was the worst since 1934. Part of the loss may be recuperated during the spring herring season, which started March 1. But with prices reduced because of the lower fat content, prospects for a substantial improvement are very slim. Besides, the herring had already begun to leave their spawning grounds off West Norway.

According to reports from Aalesund, main port for the herring fleet, only about 42,000 metric tons of fat herring, with a first-hand value of less than Kr. 15 million (US$2.1 million), had been landed at the end of the winter herring season. Last year, when the season was one week longer, the fat herring catch totaled some 225,000 tons, worth about Kr. 70 million (US$9.4 million) ex-vessel. This year, the season had barely started when the drop in fat content forced the Cooperative Herring Sales Association to switch to the lower spring herring price.

The 1961 winter herring catch, smallest in 27 years, means a raw material loss of some Kr. 250 million (US$35 million) compared with 1957, which was the last good season. And, according to experts, the failure will reduce Norway's gross national product by approximately Kr. 500 million (US$70 million).

The failure did not come as a surprise. For the past three years there have been signs that the herring stock was petering out. Both fishing vessel operators and the fish-processing industry, therefore, have been girding for the worst.

On-the-spot reports from Aalesund say that, in contrast to customary practice, owner-operators of herring vessels have not gone deep into debt prior to the start of the fishery season. This year their loans have been cautiously kept within manageable proportions. Thus, few are expected to run into financial difficulties because of the total fishery failure. Equipment firms, too, would

Norway (Contd.):

seem able to weather the storm. Worst off is the herring oil and meal industry, which so far has received only some 7,000 tons for processing, as against 700,000 tons at the same time three years ago. Such a radical drop in the supply of raw material may prove disastrous for some firms.

However, according to the Director of the enterprising Aalesund Project Council, the fishery failure is not catastrophic for that port or the Sunnmore district in general, though individual fishermen and processing plants will undoubtedly be hard hit. In recent years, the economy has been greatly strengthened by the growth of new industry. On the whole, therefore, the district is now well able to bear the sizable income loss caused by the poor herring fishery.

Another important factor is that the herring supplied to processing plants is being utilized far better than even a few years ago. Pound for pound, the herring yield a much better profit than formerly. Moreover, the same quantity of landed herring provides more jobs at processing plants than in former years. (News of Norway, March 9, 1961.)

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HERRING MEAL AND OIL SUPPLIES LOW:

Due to the low Norwegian herring catch this season (about 41,850 metric tons), deliveries of raw material to the reduction plants were negligible this year. The production of herring oil and meal is therefore substantially reduced. The supply of raw material for the marine-oil hardening industry will therefore also be reduced and larger imports will be needed.

A Norwegian trade representative stated that Norway has purchased 7,500 metric tons of menhaden oil from the United States so far this year and further purchases are expected during the coming months. Also the supply of herring meal will be substantially reduced with the result that the demand by Norway for other protein concentrates, such as soybean products, will increase. (United States Embassy, Copenhagen, March 13, 1961.)

Peru

EXPORT PRICES FOR FISH MEAL, FEBRUARY 1961:

The Peruvian National Fisheries Society (the trade organization for the fisheries industry) reported that export prices for fish meal (65-67 percent protein) during February 1961 were US$72.00-75.00 a metric ton (US$65.32-68.04 a short ton), an increase of about 2.8 percent over the January 1961 average of $64.86 a short ton. (United States Embassy in Lima, March 13, 1961.)

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FISHERIES TRENDS 1960:

The major development in the Peruvian fishing industry during the fourth quarter of 1960 was the strenuous effort of fish meal producers to work out a solution of the problems faced by the industry during the year--overproduction, falling prices, and threatened restrictions against Peruvian fish meal in foreign markets. This effort showed marked promise of success at the end of the quarter. An export quota system, evolved at a meeting in Paris (October 1960) of fish meal producers from a number of countries, and given the force of law for Peruvian fish meal exporters by a decree of December 20, 1960, limited Peru's exports of fish meal during 1961 to 600,000 metric tons. From January 1 this year, the prior approval by the National Fisheries Society was required for the issuance of export licenses by the Ministry of Agriculture. The formula used in assigning quotas to individual producers was not made public, but it is understood that provision is made for deducting from quotas for shipments in subsequent quarters made on futures contracts which may be in excess of assigned amounts. Peru's actual fish-meal production capacity is considered to be only slightly above 500,000 tons, despite higher estimates. Therefore, the 600,000-ton quota may have little meaning beyond the stabilizing influence of a known, rather than an unknown, limit on exports.

As a complementary measure, Peruvian fish-meal producers undertook to organize a marketing organization (Consorcio Pesquero del Peru, S. A.), through which all member-producers are to export. According to the regulations of the organization, between 90 and 95 percent of Peru's production had to be represented in the membership before the consortium could become operative. It became a functioning organization February 15, 1961, with slightly over 90 percent of Peru's exportable fish-meal production represented in the membership.

Exports of fish meal are high among Peru's leading exports. In latest data showing commodity exports, for the first nine months of 1960, fish meal ranked third, after copper and cotton. For the full year 1960, the value of fish-meal exports stood at 1,056.4 million soles (US$38.7 million).

Table 1 - Exports of Fish Meal from Peru, 1958-1960

Year	Quantity	Value	
	Metric Tons	Million Soles	Million US$
1960	507,042	1,056.4	38.7
1959	277,600	860.5	31.3
1958	105,777	271.1	11.8

Exports of other fishery products during the first nine months of 1960 were lower. There was a 50-percent drop in the quantity and a 52-percent drop in the value of frozen tuna exports, and slight reductions in canned bonito and tuna

Peru (Contd.):

Table 2 - Peruvian Exports of Fishery Products, January-September 1959 and 1960

Product	Jan.-Sept. 1960			Jan.-Sept. 1959		
	Qty.	Value1/		Qty.	Value1/	
	Metric Tons	Million Soles	US$ 1,000	Metric Tons	Million Soles	US$ 1,000
Frozen Fish:						
Tuna	5,941	18.0	658	11,929	37.7	1,378
Skipjack	6,925	19.1	699	4,729	14.8	541
Swordfish	126	1.6	59	102	1.2	44
Shrimp ("Langostinos")	97	2.4	88	51	1.2	44
Total frozen fish	13,089	41.1	1,504	16,811	54.9	2,007
Canned Fish:						
Bonito	10,777	107.2	3,921	12,859	136.8	5,000
Tuna	360	3.5	128	568	4.5	164
Total canned fish	11,137	110.7	4,049	13,427	141.3	5,164
Fish Byproducts:						
Fish meal	383,600	850.2	31,097	184,090	583.9	21,341
Fish oil	23,728	67.9	2,484	13,814	36.3	1,327
Sperm oil	9,489	32.5	1,189	7,904	26.3	961
Whale meal	1,513	2.6	95	2,525	7.8	285
Total byproducts	418,330	953.2	34,865	208,333	654.3	23,914
Grand Total	442,556	1,105.0	40,418	238,571	850.5	31,085

1/F.o.b. values converted at rate of 27.36 soles equal US$1 for first nine months of 1959 and 27.34 soles equal US$1 for first nine months of 1960.
Source: Statistical Department, Callao Customhouse.

Table 3 - Average f.o.b. Prices1/ for Peruvian Fish Meal Exports by Quarters, 1959 and 1960

	1960		1959	
	Metric Ton	Short Ton	Metric Ton	Short Ton
	(US$)			
1st Qtr.	83.00	75.30	146.00	132.45
2nd. Qtr.	73.33	66.52	128.33	116.42
3rd. Qtr.	81.67	74.09	95.00	86.18
4th Qtr.	76.33	69.25	90.68	82.26
Average	78.58	71.29	115.00	104.33

1/Prices for fish meal with minimum content of 65 percent protein for future delivery.
Source: Fish Meal Producers Association.

exports. It is in the byproducts sector, including fish meal and fish oil, where unusual increases occurred. In the first nine months of 1960 as compared with 1959, those exports increased 46 percent in value, from 654.3 million soles ($23.9 million) to 953.2 million soles ($34.9 million). (United States Embassy in Lima, March 1, 1961.)

Philippine Republic

U. S. CANNED SARDINES PREFERRED:

Two Philippine trade sources have indicated that the National Marketing Corporation (NAMARCO) is very likely to give preference to United States canned sardines in its next award for this product. The time for the next sardine tender has not yet been announced, but both businessmen expected it to be some time in March.

In the past each of the two firms has represented Japanese sardine suppliers, but according to their sources at NAMARCO, the Government agency is so dissatisfied with Japanese sardines that it will give preference to United States brands that are popular with Philippine consumers.

NAMARCO's policy may create an opening for United States exporters that have not yet entered the Philippine market. (United States Embassy, Manila, February 18, 1961.)

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DECONTROL HAS LIMITED IMPACT ON CANNED SARDINE IMPORTS FROM U. S.:

An initial assessment of the effect of the Philippine decontrol program on trade with the United States, based on a comparison of the trade in May through November 1960 with that of the same period of 1959, shows that so far the impact has been limited.

Most of the severe declines in imports from the United States that have occurred since the decontrol program was instituted can be explained by factors other than decontrol, which in April 1960 relegated about 25 percent of imports to the more expensive free market and in November an additional 25 percent. These factors include foreign competition, increased domestic production, and stringent regulations imposed by the National Marketing Corporation (NAMARCO) on its suppliers.

Among the categories of goods imported from the United States that declined most in the first 7 months of decontrol (November 1960 is the latest month for which statistics are available) were fish products.

Imports of United States fish products in May through November 1960 amounted to slightly over $1 million, compared with over $3 million in the like period of 1959. This drop occurred despite retention of sardines in the highest-priority and preferred-rate category of "decontrolled items" and can be attributed primarily to lack of stocks in the United States and the restrictive import policies of NAMARCO, which in April 1960 initiated much more stringent marking and labeling requirements for the items it imports. This Government organization is by far the largest importer of fish products. But only the drop in imports of squid, changed from "unclassified items" to "nonessential consumer goods," can be attributed to the decontrol program.

The decontrol program, however, is moving rapidly from the time when most goods

Philippine (Contd.):

were imported at the official 2-to-1 rate to a period in which the largest proportion of imports will be at the free-market rate. The most recent changes, which occurred last November, provided that importers of "essential producer goods," "essential consumer goods," and special "unclassified items," previously permitted importation at the preferred rate, must import such items half at the free-market rate and half at the official rate. Inasmuch as the selling rate to exporters has gone up from 2.30 pesos to 2.50 pesos to the dollar while the free-market rate has declined from 3.2 to 3 pesos to the dollar from 4 to 3.6 pesos, including the margin, a unified rate providing for a minimum distortion of existing patterns of trade may soon emerge. (Foreign Commerce Weekly, March 6, 1961.)

Poland

FISHING FLEET AND SEA FISHERIES INCREASED SHARPLY, 1949-59:

Between 1949 and 1959 the Polish fishing fleet doubled and the landings from sea fisheries rose by 146 percent. The increase in the number of large ocean-going trawlers increased from zero in 1949 to 39 vessels in 1959, and the smaller inshore craft (cutters) jumped from 279 vessels in 1949 to 502 vessels in 1959. The sharp rise in the landings was due to increases in the landings of herring or herring-like fish. Apparently the super-trawlers have concentrated on the herring fishery as the landings of this species jumped sixfold from 1949 to 1959. The increase in the landings of sprat or sardines was even more pronounced. Landings of species other than herring and sprat were about the same in 1959 as in 1949.

Table 1 - Polish Fishing Craft[1/], 1949, 1955, and 1958-59

Fishing Craft	1959	1958	1955	1949
Gross registered tons	58,000	55,100	34,300	15,250
	(Number)			
Supertrawlers	39	30	8	-
Trawlers	15	17	20	20
Luggers and trawlers	50	52	34	-
Luggers	3	3	3	3
Cutters	502	476	397	279
Total	609	578	462	302

1/Source: Concise Statistical Yearbook of the Polish People's Republic, 1960.

Table 2 - Polish Landings of Fishery Products, 1949, 1955, and 1958-59

Product	1959	1958	1955	1949
	(Metric Tons)			
Codling	36,700	38,400	40,300	36,900
Herring	84,300	70,600	52,000	12,000
Sprats	15,300	11,300	5,100	1,100
Other	9,600	6,400	9,700	9,300
Total	145,900	126,700	107,100	59,300

Portugal

CANNED FISH EXPORTS, JANUARY-DECEMBER 1959-1960:

Portugal's exports of canned fish declined from 76,985 metric tons or 4.2 million cases in 1959 to 65,137 tons or 3.6 million cases in 1960. The amount of each product exported was less in 1960 (see table). West Germany remained the principal buyer of Portugal's canned fish exports in 1960 with 14,631 tons, followed by Great Britain with 8,139 tons, the United States with 6,890 tons, and Italy with 6,417 tons. Exports for those countries in 1959 were: West Germany 16,899 tons, Italy 10,199 tons, Great Britain 7,688 tons, and the United States 7,340 tons. (Conservas de Peixe, February 1960 and 1961.)

Portuguese Canned Fish Exports, January-December 1959-1960

Product	January-December 1960		1959	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In Oil or Sauce:				
Sardines	54,790	2,883	60,760	3,152
Chinchards	1,731	91	1/	1/
Mackerel	503	20	3,236	129
Tuna and tunalike	3,432	123	4,006	141
Anchovy fillets	4,284	428	6,359	635
Others	397	20	2,624	137
Total	65,137	3,565	76,985	4,194

1/1959 data for chinchards probably included with "others."

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CANNED FISH PACK, JANUARY-DECEMBER 1959-1960:

The Portuguese pack of canned fish in oil or sauce increased from 62,459 metric tons or 3.5 million cases in 1959 to 70,204 tons or 3.8 million cases in 1960. Sardines again accounted for the bulk of the pack in 1960 with 82.5 percent as against 80.5 percent in 1959; however, tuna and tuna-like fish replaced anchovy fillets as Portugal's second leading canned fish in 1960 (see table).

Matosinhos remained Portugal's leading sardine port in 1960, accounting for 63.1 per-

Portugal (Contd.):

cent of total sardine landings as against 71.3 percent in 1959.

Portuguese Canned Fish Pack, January-December 1959-1960

Product	January-December			
	1960		1959	
	Metric Tons	1,000 Cases	Metric Tons	1,000 Cases
In Oil or Sauce:				
Sardines	57,929	3,054	50,290	2,646
Chinchards	1,879	99	1/	1/
Mackerel	492	19	583	23
Tuna and tunalike	5,335	191	4,495	161
Anchovy fillets	3,919	392	5,624	562
Others	650	34	1,467	78
Total	70,204	3,789	62,459	3,470

1/1959 data for chinchards probably included with "others."

Tuna landings for January through October 1960 amounted to 1,912 tons and bonito 112 tons as compared with 1,310 tons and 288 tons, respectively, for the same period in 1959. (Conservas de Peixe, February 1960, January and February 1961.)

Senegal

TUNA FISHING TRENDS, LATE 1960:

Two major events highlighted the tuna fishing industry in Senegal, West Africa, during the last quarter of 1960, one being the start of the 1960/61 fishing season and the other being a continued and growing interest on the part of United States firms in commercial aspects of the tuna fishery.

The 1960/61 season started officially on November 15, 1960, with a total of 57 clippers (24 from France) and 16 freezerships taking part. Preparations for the new season had centered around the hope that Senegal could combat the excessively high costs of the local industry and thereby enter world markets. However, lack of cooperation on the part of the fishermen, who raised prices to 40 percent above world market levels, vitiated these hopes and any export outside the franc zone area will be attributable only to the fact that the Senegalese Government is forcing local canners to sell 3,500 metric tons of canned tuna at world prices if they wish to sell to France the 10,000 tons France has agreed to purchase at the artificially-high prices. In addition, 5,000 tons of frozen tuna outside the agreement will be purchased by France, and 6,000 tons by United States firms. The fishermen's attitude has caused Senegal to start looking for fishermen other than the French to catch and land the fish, though up to February 14, 1961, no agreement was reached with anyone.

United States interest in the Senegal tuna industry has been emphasized by visits of representatives of United States tuna canneries.

A meeting of fishery scientists took place in Dakar from December 12 to 17, 1960. It studied various aspects of tuna life-history, as well as encouraged increased research on tuna in African waters. It encouraged the establishment of an international regulatory commission to prevent overfishing. (United States Embassy, Dakar, February 14, 1961.)

South-West Africa

FISHING VESSELS AND GEAR, JUNE 1960:

As of June 1960, the South-West African fishing fleet consisted of 111 vessels, over half of which were engaged in the pilchard-maasbanker (jack mackerel) fishery. Most of the balance fished for spiny lobsters.

South-West Africa's Motor Fishing Vessels and Gear as of June 1960

Fishing Gear Used by Vessel	No. of Vessels
Lampara purse net (Power Winch)	67
Lampara purse net and spiny lobster nets (Power Winch)	2
Spiny lobster nets (Power Winch)	31
Spiny lobster nets	6
Hand lines	2
Lines and nets	3
Total	111

Notes: (1) All vessels are Diesel-powered with hp. ratings from 44 to 230.
(2) Vessel sizes range from 43 to 69½ feet; most of the vessels are between 50 and 60 feet.
(3) All lampara purse-net (pilchard) vessels are harbored at Walvis Bay; 19 of the spiny lobster vessels are stationed at Cape Town (some 400 sea miles from Luderitz); the remainder at Luderitz.

There are no otter trawlers registered in South-West Africa. (The South African Fishing Industry Handbook and Buyers' Guide, 1960/61.)

Spain

SHRIMP INDUSTRY:

The Spanish shrimp industry is concentrated in southern Spain in the provinces of Huelva, Cadiz, and Malaga. Shrimp operations are carried on throughout the year.

Spain (Contd.):

On December 31, 1959, there were 784 fish-processing plants in Spain. These plants usually process a variety of species rather than one type, such as shrimp. At present there are insufficient freezing facilities for developing a large frozen fish industry to supply local supermarkets, and for regulating the supply of fresh fish to the markets and to the canning industry. Freezing plants in the South Atlantic region are located in Cadiz, Malaga, and Huelva with a total freezing capacity of 25, 10, and 2 tons of fish per day, respectively. The National Investment Institute has had a plan for several years for the development of cold-storage and freezing facilities in every major port in Spain. Under the plans of the National Freezing Network, plants can be installed directly by National Institute of Industry (INI) or by private companies, but with location and capacity subject always to INI approval.

In 1959 there were 505 canning plants located along the Spanish coast for handling all kinds of fish. Out of the total, 70 have a processing capacity of up to 200 metric tons yearly; 249, up to 600; 148, up to 1,300; 23, up to 2,000, and 15 for over 2,000 tons. Some 65 of the total are located in the provinces of Huelva, Cadiz, and Malaga, and most of them have a medium operating capacity.

The major part of the Spanish-canning industry is made up of a large number of small, antiquated units. These units must be renovated for the industry to meet foreign competition in the domestic market.

Statistics on shrimp landings are not broken down by the size of shrimp caught. Landings of heads-on shrimp amounted to about 13,900 metric tons in 1959, which represented about 65 percent of the total landings of crustaceans (estimated by the Fish Syndicate at 20,400 tons in 1959). Approximately 11,000 of the 13,900 tons were caught in the areas of Huelva and Cadiz.

Shrimp are caught in trawling operations. The only available data on the number of vessels devoted to the shrimp fishery is for the province of Huelva. The Directorate General of Fishing reports that there are approximately 204 motor boats of different tonnage in that area. The largest vessel (142 tons and 400 hp.) belongs to the port of Huelva. The remainder average four tons with a power capacity of some 20 hp. Sail boats and row boats are also used in shrimp catching. Vessels often are owned by local fishermen who carry on private operations.

Table 1 - Spanish Landings of Shrimp and Spiny Lobster, 1956-59

Year	Shrimp (Heads-on)	Langostinos (Heads-on Large Shrimp and Spiny Lobsters)
	(Metric Tons)	
1959	13,902	322
1958	11,905	366
1957	14,321	298
1956	13,804	398

Due to the multiple exchange rates, export prices of shrimp and spiny lobsters prior to June 1959 are difficult to determine. According to official sources in Cadiz, prices of frozen shrimp in 1960 for export to the United States average about 83 U. S. cents a pound for first-grade shrimp and 53 U. S. cents a pound for second-grade shrimp at official rate of 60 pesetas to US$1.

Table 2 - Spanish (Cadiz Area) Exports 1/ of Frozen Spiny Lobsters and Shrimp, 1956-59 and January-June 1960

Year	Country of Destination	Quantity
		1,000 Lbs.
1960 (January-June)	United States	79.0
1959	United States	142.6
1958	United States	25.6
	Great Britain	8.6
1957	United States	181.3
	Denmark	30.4
1956	United States	155.4
	Germany	100.0
	Sweden	95.9
	Great Britain	3.3
	Denmark	2.2

1/ 1956-59 data are for frozen lobsters; data for 1960 are for shrimp. In 1960 the lobster catch was small and frozen Moorish shrimp (similar to crayfish, very large and red) were substituted for export.

Official sources in Huelva report that the major species exported to the United States were frozen shrimp (Moorish) and frozen spiny lobster tails. The average quantity of frozen shrimp and spiny lobster tails exported to the United States was about 136 metric tons a year; the average amount of boiled and frozen shrimp exported to France was about 200 metric tons per year.

No export taxes are levied on shrimp because of the Government's interest in expanding exports. As is true for all products, however, export licenses must be obtained from the Ministry of Commerce. The fish industry continues to benefit from the 1959 decree which increased taxes on petroleum products, but specifically excluded petroleum products sold to fishing vessels.

The national labor regulations for the fish-canning industry which were approved by the Ministerial Order of October 13, 1958, fixed

Spain (Contd.):

wage rates for personnel working in those industries. The monthly wages for technicians fluctuate between about 1,500 pesetas and 3,300 pesetas (US$25.00-55.00). Administrative positions are rated between 1,000 and 2,500 pesetas ($16.67-41.67) per month. For common laborers the hourly rate fluctuates between 15 and 46 pesetas (25 to 76.7 U. S. cents). The employee's real income is at least 40-45 percent higher than his basic salary because of the payments for overtime, premiums, and bonuses.

Salaries for fishermen are fixed by the national labor regulations for the fishing industry dated October 26, 1956. Rates depend on the type of fishing and on the duties of the laborer on the vessel. Premiums given on the total amount of the catch must be added to the basic salary. Fishermen engaged in the shrimp fishery are usually self-employed and their income is derived from the sale of their catches. (United States Embassy, Madrid, March 1, 1961.)

Tunisia

EXPORTS OF SELECTED FISHERY PRODUCTS TO UNITED STATES, 1956-60:

Tunisia's exports of products usually associated with fisheries to the United States between 1956 and 1960 were confined largely to cuttlefish bone and land snails, plus small quantities of marine shells and dried octopus. (United States Embassy, Tunis, February 20, 1961.)

Tunisian Exports of Selected Fishery Products to the United States, 1956-60

Products	Quantity					Value				
	1960	1959	1958	1957	1956	1960	1959	1958	1957	1956
	(Metric Tons)					(US$)				
Sponges	-	-	-	-	-	-	-	-	-	2,328
Cuttlefish bone	27	20	25	24	45	7,092	7,160	9,325	6,738	18,529
Snails[1/]	23	24	37	34	54	7,576	7,523	9,215	5,616	7,233
Octopus, dried	-	-	-	1	-	-	-	-	476	-
Sea shells	-	-	-	4	7	-	-	-	1,518	1,384

1/Land snails.

Turkey

TUNA AND BONITO EXPORTS HIGHER IN 1960:

Exports of bonito and tuna caught by the Istanbul fishing fleet in 1960 were officially estimated at 6,800 metric tons valued at TL 10,725,000 (US$1.2 million), an increase of 160 percent in quantity and 200 percent in value over 1959. Prices (f.o.b.) were up an average of 20 percent. The increased catch came as a surprise to local experts who expected that bonito and tuna, which make up the large majority of Turkish fish exports, were running "off cycle." The fall run, which is normally heavier than the spring run, was so productive that fishermen halted operations on several occasions because cold-storage facilities were unavailable and local prices were falling rapidly. Prices on the local market varied at times up and down as much as 50 percent from the seasonal average. Exporters enjoyed a substantial premium. Principal markets were canneries in Italy and Yugoslavia.

The fishery cooperative movement gained new ground during the year as organizations were able to export on their own account for the first time.

Trade sources now predict another successful year in 1961 when the bonito run is expected to continue, the United States Consulate in Istanbul reported on February 23, 1961.

Union of South Africa

FISHING VESSELS AND GEAR, JUNE 1960:

As of 1960, South Africa's powered fishing fleet consisted of 549 vessels using purse nets, spiny lobster nets, and lines, plus 62 otter trawlers. The fishing fleet other than otter trawlers was made up of the following: 153 vessels, 30-40 feet long; 165 vessels, 41-50 feet long; 146 vessels, 51-60 feet long; 82 vessels, 61-70 feet long; and 3 vessels over 70 feet in length. The steam-powered otter trawlers ranged in length from 86.5 to 176 feet and the Diesel-powered trawlers from 50 to 129 feet in length. Vessels other than otter

Union of South Africa (Contd.):

South Africa's Motor Fishing Vessels and Gear as of June 1960	
Fishing Gear Used by Vessels	No. of Vessels
Lampara purse net (power winch)	172
Lampara purse net	6
Lampara purse net and spiny lobster nets (power winch)	6
Lampara purse net and spiny lobster nets	6
Hand lines	95
Hand lines (power winch)	6
Lines and nets	67
Lines and nets (power winch)	22
Spiny lobster nets	42
Spiny lobster nets (power winch)	24
Spiny lobster nets and hand lines	74
Spiny lobster nets and hand lines (power winch)	29
Otter trawlers (steam power)	26
Otter trawlers (Diesel power)	36
Total	611

trawlers are practically all Diesel-powered. (The South African Fishing Industry Handbook and Buyers' Guide, 1960/61.)

U.S.S.R.

FISHING INDUSTRY EXPANDING:

In 1960 a total Russian fishery catch of over 3 million metric tons (6.6 billion pounds) was reported from operations in waters stretching from Kamchatka to Newfoundland and from Greenland to Takoradi. It seems probable that the seven-year-plan goal of 4,626,000 tons in 1965 will be reached, according to a report in Fiskets Gang, (January 26, 1961), a Norwegian fishery periodical.

The constant increase in the Russian catches is due to centralized planning and leadership, the use of large fleets, stern trawlers, and large coventional ocean trawlers combined with individual exploratory fishing vessels, and the exploitation of new fishing grounds. For example, stern trawlers now sail from Kherson on the Black Sea and Kalingrad on the Baltic Sea to the West African coast for sardines.

Fleet expansion and modernization have moved ahead rapidly. Numerous 230-foot stern trawlers have been built in Poland, Russia, and East Germany. Sixty of these are slated for tropical fishing for tuna and sardines, and will be delivered by East Germany in the period from 1961 to 1965. Conventional 540-hp. 140-foot fishing trawlers will be repowered with 600-800 hp. engines to increase their speed and all trawlers will be equipped with refrigerated holds. At the same time the coal-fired trawlers will be converted to oil to increase the operating range, and old coastal trawlers will be scrapped and replaced by a smaller number of vessels equipped with Danish seines. Crews from the coastal vessels will be transferred to the North Atlantic ocean trawlers.

The present methods are being changed gradually, and the tendency is toward complete processing aboard the vessel. Processing and cargo space has been increased in the large trawlers, and their capacity for processing products now is double that of a normal or average trip. The first full load on a trip is delivered to a transport vessel while the second is carried directly home.

The older cargo-freezing vessels which were converted to motherships have been found to be ineffective, unsatisfactory, and to have too little refrigerating capacity. Seven of these are being completely re-equipped and mechanized, but only one new vessel--Severdovinsk--has been built.

The herring fisheries are becoming more and more important. Before long all of the coventional 140-foot vessels will fish herring exclusively, using gill nets and midwater trawls. The herring will be frozen and delivered directly to the home ports. The midwater trawl appears to have been perfected for the stern trawlers, and new materials, such as plastics, make it possible for the stern trawlers to fish to a depth of 500 fathoms. A new trawl, designed for rough bottom, is under development and, likewise, steerable otter boards. New hydroacoustic equipment is being installed in all ocean-fishing craft.

Russian consumers have become more particular, and in the attempts to satisfy them, the Fishery Ministry has discovered that it is more profitable to deliver good-quality and well-prepared fishery products in an appealing form. One result is that the volume of fish fillets in the stores in 1960 was five times that in 1958.

In order to meet the increased supply and increased demand, the processing plants in Murmansk have been greatly expanded and a number of refrigerated railroad cars have been placed at their disposal for the distribution of fish over the whole of European Russia.

In all, the Russian fishing industry presents a healthy picture.

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FLOATING DRYDOCK FOR FISHING VESSELS EN ROUTE TO PACIFIC COAST:

A report from Halsingborg, Sweden, states that on February 19, 1961, a large Soviet tugboat passed through Oresund towing a giant floating dock. The dock, it is said, was built in Lithuania. It is being towed to the Soviet Pacific Ocean coast via the North Sea, English Channel, around Africa and through the Indian Ocean. The journey, it is estimated, will take about three and one-half months. The floating dock, according to reports, will be stationed in "Port Pripiski" where it will serve as a repair shop for Soviet fishingboats and trawlers. (United States Consulate in Goteborg, February 20, 1961.)

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NEW HERRING FACTORYSHIP FOR FAR EAST:

The newly-constructed vessel Sovjetskij Sakhalin has arrived at Nevelsk in South Sakhalin, U. S. S. R., according to the Russian periodical Vodny J. Transport for February 7, 1961 (as reported in February 23 Fiskets Gang, a Norwegian fishery periodical). The vessel was built in a Polish shipyard for the U. S. S. R. as a mothership and factoryship for the herring fleet in the Far East. The vessel displaces 17,000 tons.

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

PACIFIC SALMON PROBLEMS SUBJECT OF CONFERENCE:

It was reported from Petropavlovsk-Kamchatskiy, U. S. S. R., that Soviet scientists and fish industry specialists late in 1960 participated in a conference on problems of the salmon economy of the Far East. The conference discussed results of many years' research on the condition of fish reserves, improvement of artificial reproduction, and improvement of conservation and regulation of salmon fisheries in the northwestern part of the Pacific Ocean. The reports and speeches noted that in recent times, despite the measures adopted by Soviet organizations for improvement of reproduction of Far Eastern salmon, in an overwhelming majority of fishing regions of the Far East a rapid fall in the commercial catch has been observed. This is accompanied not only by destructively subnormal replenishment of basic species, but also a destructively low level of fish reproduction.

To prevent a further drop in salmon reserves, industry workers took steps to reduce the intensity of fishing, closed several fish combines, canning plants, and considerably reduced the size of the fishing equipment.

But all these steps have not given and will not give the proper results, since the basic reason for the sharp reduction in Far Eastern salmon is the extraordinarily intensive, irrational fishing conducted by the Japanese fishing industry in the northwestern part of the Pacific Ocean, and primarily in the southern region of the sea breeding grounds. Several at the conference spoke on this subject in particular.

The conference noted the positive role of the Soviet-Japanese Fishing Convention, which has somewhat adjusted the salmon catch in the open sea. But at the same time, it was deemed necessary to take further active steps to regulate fishing conducted by the Japanese fishing industry, in order to prevent possible destruction of the fishing value of Far Eastern salmon.

Decisions and recommendations were made on further development of scientific research, improvement of fishing regulations, and strengthening of artificial reproduction of salmon. The reserves of Far Eastern salmon, a national resource of the Soviet Union, must not only be restored, but increased, according to the conference. (United States Embassy, Sapporo, Japan, March 8, 1961.)

United Kingdom

FISHERY LOANS INTEREST RATES REVISED:

The British White Fish Authority in February 1961 announced that, as a result of changes in the rates of interest charged to them by H. M. Treasury, their own rates of interest on loans made as from February 20 will be as follows:

Fishing vessels of not more than 140 feet, new engines, nets, and gear:

On loans for not more than five years--$5\frac{3}{4}$ percent; decrease $\frac{1}{4}$ percent.

On loans for more than five years but not more than 10 years--$6\frac{1}{4}$ percent; increase $\frac{1}{4}$ percent.

On loans for more than 10 years but not more than 15 years--$6\frac{5}{8}$ percent; decrease $\frac{1}{8}$ percent.

On loans for more than 15 years--$6\frac{3}{4}$ percent; no change.

Processing plants:

On loans for not more than 20 years--7 percent; no change.

The rates on loans made before February 20, 1961, are unchanged. (Fish Trades Gazette, February 25, 1961.)

Note: See Commercial Fisheries Review, January 1961 p. 84.

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FISH MEAL PRICES, MARCH 1961:

Fish meal prices reported by a British trade periodical between November 19, 1960, and March 4, 1961 (see table p. 66).

As of March 4, 1961, imported fish meal prices were up from 2.2-9.7 percent as compared with February 4, 1961. Domestic fish meal prices on March 4, 1961, were down about 5.3 percent for white fish meal and unchanged for herring meal from a month

United Kingdom (Contd.):

Type of Fish Meal	Protein Content	Date Quoted	£/s./d. per Long Ton	US$ Long Ton	US$ Short Ton
Imported:					
S. Africa (white fish)	65	11/19/60	48/15/0	136.50	121.87
Peru (branded)	65	3/4/61	39-40/0/0	109.20-112.00	97.50-100.00
Peru (avg. quality)	65	3/4/61	37/0/0	103.60	92.00
Iceland (white cod)	70-73	11/26/60	42/0/0-48/16/0	117.60-136.64	105.00-122.00
Iceland (herring)	70	3/4/61	46/7/6	129.85	115.94
Denmark (herring)	73	3/4/61	49/5/6	137.97	123.19
Domestic:					
White fish	66	3/4/61	1/53/10/0	149.80	133.75
Herring 2/	68-71	3/4/61	50/0/0	140.00	125.00

1/In bags, ex-factory Hull or Grimsby.
2/In bags, ex-factory.
Note: Imported fish-meal prices are c.i.f. current shipments, and domestic-meal prices (net cash) are ex-plant, in 6 long-ton lots and bagged, unless otherwise reported.

earlier. (United States Embassy, London, March 17, 1961.)

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SUPERTRAWLER LAUNCHED IN GERMANY:

The largest and most revolutionary trawler ever built for the British fishing fleet was launched on January 14, 1961, in Bremerhaven, Germany. Named the Lord Nelson, the trawler cost £400,000 (US$1,122,000). Besides being Britain's largest and first distant-water freezing stern-trawler (as distinguished from the Fairtry-type factory-trawlers which also fish from the stern).

Specifications are as follows; tonnage, 1,200; over-all length, 238 ft. 10 in. (30 feet longer than the largest existing conventional British trawler); breadth, 36 ft.; depth (from 2nd deck), 15 ft. 9 in., and draught, 14 ft. 4 in. Her variable-pitch propeller is stainless steel and controlled from the bridge. Fittings and auxiliary equipment will be supplied by the British, such as radio, radar, radio-telephone, and fish-finding aids. The all-welded vessel has baths, showers, cabins, and a modern sick bay. It is expected to join the fleet out of Hull, England, by May 1961, and will stay out longer than the present 21 days for distant-water vessels. Her turbo-charged six-cylinder engine develops 2,000 hp. at 250 r.p.m., developing a speed of 15 knots. The Lord Nelson has 2 main generators of 105 kilowatts each, one driving the winch and the other for main power supply. These generators are directly driven by the shaft--a first for this type vessel. If the main engine breaks down, the generators can be coupled to haul in the gear and drive the ship at reduced speed. A 40-kilowatt generator in the engineroom can be used for emergency or in-port lighting.

The vessel's trawl net is hauled up a ramp cut into the stern--the fish then slide below decks through a hydraulically-operated hatchway. Below, on the main fish deck (which is under cover), the fish are cleaned, then placed on a conveyor belt which takes them through a washer and into a compartment where they are prepared for freezing. This compartment contains 16 freezing units. Trays of frozen fish are later transferred to an 11,620 cubic ft. refrigerated hold. An elevator brings the fish to the upper deck level for unloading.

Only part of the catch will be frozen at sea since fish caught near the end of the trip can be stored in an iced fish hold with a capacity of 280,000 pounds. The vessel's instruments will be contained in a console on the bridge--dual controls will enable the skipper to shoot or haul in the trawl net while handling engineroom controls.

High quality is the goal of the owners--"fish frozen immediately as it is taken from the water." (The Fishing News, January 20, 1961.)

Note: Values converted at the rate of 1 British pound equal US$2.805.