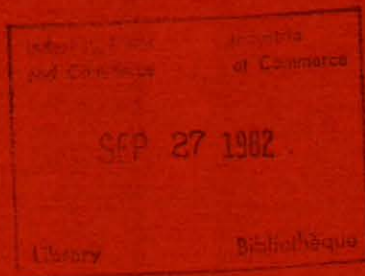


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Annex  
v.14zg

# ANNEX TO THE WORLDWIDE FISHERIES MARKETING STUDY: PROSPECTS TO 1985

# MEXICO



Government  
of Canada

Gouvernement  
du Canada

Fisheries  
and Oceans

Pêches  
et Océans

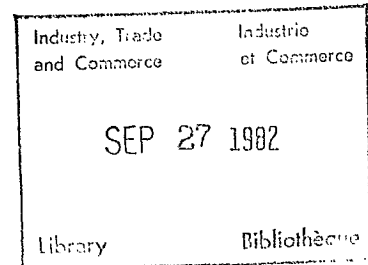
(This report is one of a series of country and species annexes to the main study - entitled the Overview).

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Annex to the  
Worldwide Fisheries Marketing Study:  
Prospects to 1985.

MEXICO



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December, 1981

## ACKNOWLEDGEMENT

The preparation of the Worldwide Fisheries Marketing Study, of which this Report is a part, embodies many hours of work not only by the authors but also and more importantly by those who generously provided us with market information and advice.

Specifically, this Report would not have been possible without the cooperation and assistance of fishermen, processors, brokers, wholesalers, distributors, retailers, consumers and their organizations as well as government officials with whom we visited and interviewed. Though too numerous to mention separately, we would like to extend our sincere gratitude and appreciation.

The views expressed in this Study, however, are ours alone and reflect the Canadian perception of worldwide markets.

With regard to the overall Study, we would like to acknowledge:

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- the dedication of the participants from various parts of the industry and government including officers at our diplomatic posts who formed the study teams;
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To all of the above, we extend our thanks.

E. Wong  
December, 1981

## FOREWORD

As a consequence of global extension of fisheries jurisdictions, a radical shift has taken place in the pattern of worldwide fish supply and demand. This change is still going on and will continue for many years before a new dynamic equilibrium situation is reached. However, in the midst of this re-adjustment, a new trade pattern is emerging -- some net exporting countries are now importing and vice versa. In the longer term, some countries will experience shortages of supply and others will have a surplus. Fortunately, Canada is amongst the latter group.

The implications for the marketing of Canadian fisheries products arising from the worldwide introduction of the 200-mile limit are extensive. With our vastly improved supply position relative to world demand, government and industry are understandably concerned about ensuring that the bright promise of increased market opportunities are real and can be fulfilled. One of the steps in this process is the publication of the Worldwide Fisheries Marketing Study which assesses the global potential on a country and species basis.

Specifically, the purpose of the Study is to identify the longer term market opportunities for selected traditional and non-traditional species in existing and prospective markets and to identify factors which may hinder or help Canadian fisheries trade in world markets. To date, over 40 country markets and 8 species groups have been analyzed. It should be noted that while the information contained in the Reports was up-to-date when collected, some information may now be dated given the speed with which changes are occurring in the marketplace. In this same vein, the market projections should be viewed with caution given the present and still evolving re-alignment in the pattern of international fisheries trade, keeping in mind the variability of key factors such as foreign exchange rates, energy costs, bilateral fisheries arrangements and GATT agreements which have a direct effect on trade flows.

Notwithstanding, the findings contained in these Reports represent an important consolidation of knowledge regarding market potential and implications for improvements in our existing marketing and production practices. The results of the Study should, therefore, usefully serve as a basis for planning fisheries development and marketing activities by both government and industry in order to capitalize on the identified market opportunities.

This draft report is published for discussion purposes and as such we invite your critical comments.

Ed Wong

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Department of Fisheries and Oceans.  
October, 1981.  
Ottawa

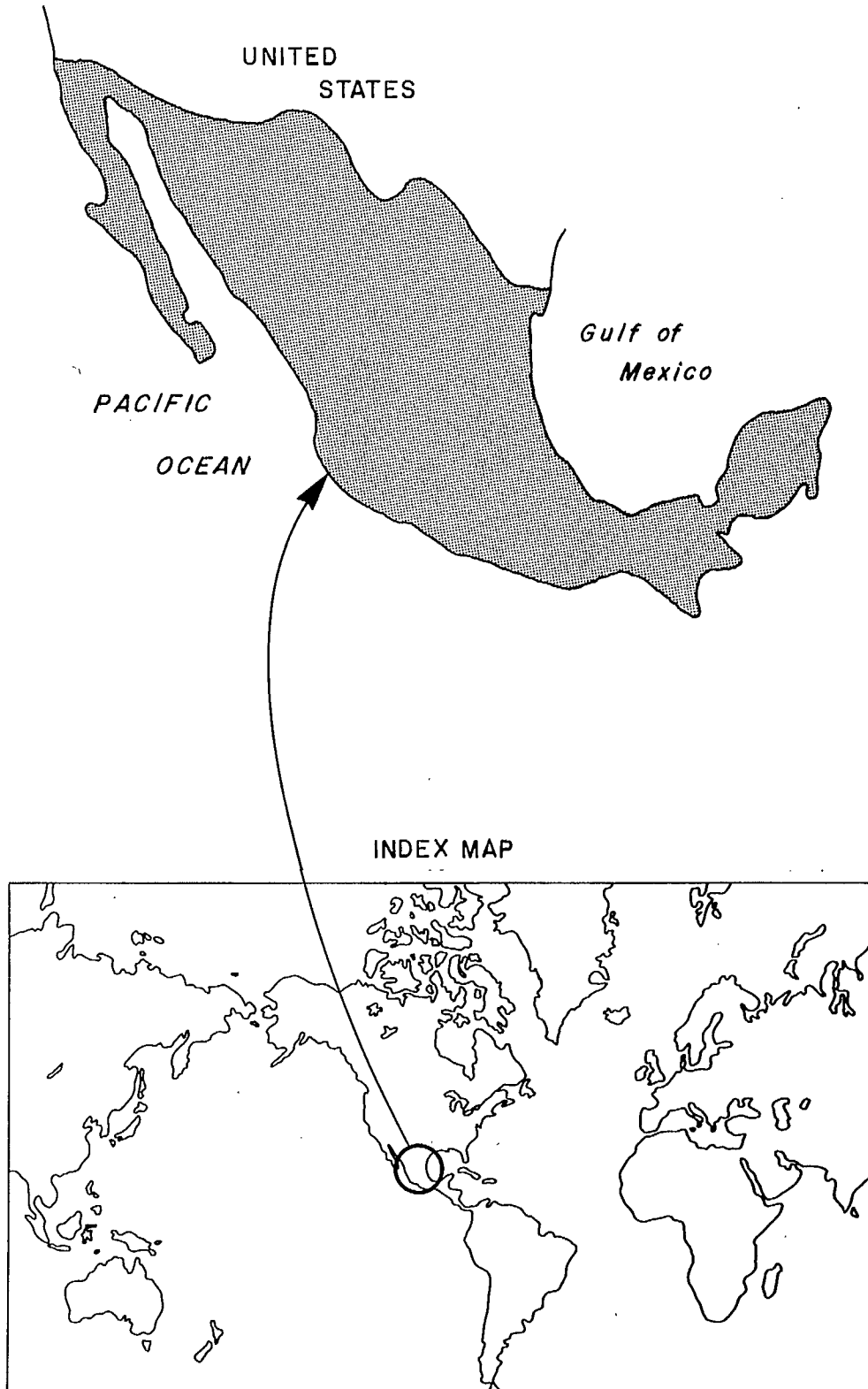
# WORLDWIDE FISHERIES MARKETING STUDY

## MEXICO

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# MEXICO



## A. DEMAND FOR FISH

### 1. The Market in General

With a population of more than 65.7 million and an estimated 31 million people who are seriously undernourished, Mexico has the potential to become a significant market that can support a thriving domestic fishery.

The fact is, however, that Mexicans are not enthusiastic consumers of fish. Consumption is low by both regional and global standards, amounting to just 4.6 kilograms per capita in 1975 -- the second lowest of any major fishing country.

Mexican consumers prefer meat. When they do buy fish, they tend to concentrate on a relatively few familiar species and show a general reluctance to try anything new.

To compound the problem, some of the traditionally popular fish products such as dried cod (bacalao) are not supplied by the domestic industry.

### 2. Market Prospects

The Government of Mexico is hoping that an economic development program currently under way will lead to increased consumption of fish.

Development of the domestic fishery is a major element of the program, which in turn is part of an overall economic and social policy thrust directed toward the rapid growth of production and employment and a more equitable distribution of the national wealth.

To achieve this objective, the government has given priority to development of both the energy and food sectors. The country's petroleum resources are counted on to earn foreign currency that will contribute to financial self-sufficiency, which in turn will help lead to food self-sufficiency with a surplus for export. Over the past four



years (1976-80), Mexico has accumulated the largest monetary reserves in its history and has US\$6.1 billion in reserves.<sup>1</sup>

The food sector has been assigned the responsibility of ensuring proper nutrition for Mexican citizens. Within the food sector, fisheries is expected to make a major contribution, both in terms of improving the diet of Mexicans and generating employment and foreign currency.

Some programs have already been introduced, aimed at persuading Mexicans to change their buying habits and thus create a demand for the expanding catch of "unfamiliar" species by Mexican fishermen.

Trawl fisheries of Mexico have so far concentrated almost exclusively on shrimp, which is confined to depths of 100 metres or less. A considerable by-catch is taken with shrimp, and in the Gulf of California, the average ratio of by-catch to shrimp was found to be approximately 6.3:1 (based on 1 117 catches in a study conducted by the Instituto Nacional de Pesca). This yields at least 300 000 tons per year of by-catch on both coasts, of which only a very small fraction is harvested.

Over the last five years, various attempts have been made to process the by-catch into a form for human consumption, including attempts at making fish pudding and boiled, compressed and salted fish cakes. Although small fish-meal plants have been installed on shrimp vessels they usually succeeded in producing fish meal of low quality. Nevertheless, there is a continuing interest in using the by-catch. If suitable methods of processing the material were available (e.g. by using a factory ship with boning machines which could accompany large fleets), it is possible much of this could be harvested and used to meet the demand for cheap protein for human consumption.

---

<sup>1</sup> Source: Cala Reports, September 1980, Toronto.

Generating this new demand is the task assigned to the state-owned fishing company, PRODUCTOS PESQUEROS MEXICANOS (PPM) the state fishing corporation is cooperating with the Department of Fisheries (DEPES) in an experimental project to utilize the incidental finfish catch from shrimp fishing. A meat-bone separator is being used to produce 5 tonnes of "fish hamburger" from 30 tonnes of fish. The patties are being test marketed as "Tepepes" at PPM's Monterey and Mexico City retail stores.

Test marketing in some cities produced encouraging results, and Mexican officials are optimistic about the prospects. Among the advantages of the product, they say it will make a high-protein food product available to consumers at prices below those of meat and poultry. The same advantages make it ideal in lunches for schoolchildren.

If this new development catches on with the general public, it should create a market for the estimated 350 000 tonnes of various species of fish that are thrown overboard annually by Mexican shrimp fishermen.

B. SUPPLY OF FISH

1. The Domestic Industry

The Mexican government has given high priority to the fishing industry, and progressive targets for expansion have been set.

In terms of the total catch, Mexico's fishery has already begun to show significant growth. Landings in 1979 totalled 1 million tonnes, up from 703.5 thousand in 1978. The government's fisheries plan envisages landings of 2.4 million tonnes by 1982.

A further indication of the Mexican government's determination to expand operations was the announcement that 150 fishing vessels, valued at C\$69 million would be added to the country's fishing fleet in 1980.

Development of the industry comes under the jurisdiction of the Mexican Department of Fisheries, created in 1977 to co-ordinate the activities of the fishing sector, which embraces 27 government agencies, 22 companies with state participation concerned with fishing, processing and distribution, and about 440 co-operatives engaged in fishery activities.

Mexico has access to the Pacific Ocean, the Gulf of Mexico and the Caribbean. Major species caught off the country's shores include tuna, mackerel, shrimp and other shellfish.

For purposes of the development plan, the nation has been divided into 31 fishery districts, covering centres of marine activity as well as 14 regions where inland waters are fished. Each district is administered by a delegate of the Department of Fisheries. The primary responsibility of the delegations is to determine the species, products and volumes required to meet the nutritional needs and thus the predicted demand for each region.

As part of the drive to improve nutrition and make fisheries production more efficient, the government in 1979 ordered the remodelling of the national banking system to make it an instrument for promoting and financing various elements of the program.

The National Co-operative Development Bank thus became the National Fisheries and Ports Bank (BANPESCA) which operates as a multiple banking service with more flexibility to provide financial assistance for fishing, port, shipbuilding and related activities and to provide better access to credit by co-operatives not involved in these sectors. BANPESCA grants loans and credits for such things as development of fishing and the fishing fleet, processing, transportation of products, marketing, development of ports and infrastructure. It began its financial support operations in January of 1980.

Other important elements of the overall fisheries plan include a high priority on development of aquaculture to serve inland regions, and improved technology for handling and distribution, including more and better refrigeration facilities.

How successful the fisheries expansion plan will be in the long term is difficult to judge at this time. In the view of some, the plan is too ambitious and stands little chance of attaining all of its objectives.

## 2. The Legal Environment

The importance of developing the capital goods industry is recognized by the Mexican government. The positive aspects which development has in increasing employment, import substitution, export expansion, regional decentralization and improvement of the technological base and industrial structure are the main reasons. The Mexican government is anxious to ensure that new industrial development will be of an internationally competitive nature and not of a "hot-house" variety. Current economic and social conditions in that country would appear to call for increased flexibility and occasional exemption from "Mexicanization" rules with a continued emphasis on and trend towards

joint ventures with majority mexican partners and continued loosening of import restrictions to permit huge expenditures of the foreign exchange from oil revenues for capital goods and technology to feed the massive industrial expansion.

Late in 1978, the government decided to reduce the requirements for import licenses of a number of products. There appears to be a trend of removing some protection from inefficient Mexican producers to improve the quality of production, decrease prices and generally improve competitive efficiency to prepare them for competition in international markets.

It appears that a tax system will be replacing the import licensing system over the next few years. In this context a value-added tax was enacted and became effective on January 1, 1980. Beginning at that date, the value-added tax (VAT) replaced the commercial revenues tax and seventeen other taxes, including taxes on the resale of oil and lubricants, cement production, forestry exploitation, the fishing industry and others. VAT is to be applied to property transfers, services (except from professionals) property rentals, and importation of goods and services. Exports are exempt from VAT and the exporter may request a refund of the tax to be passed on to him by his suppliers, which refund may be up to ten percent of the value of the exported goods and services.

### 3. Imports

With government programs and policies emphasizing self-sufficiency in food production, the Mexican market for imported fish is not expected to grow significantly.

As reported by the principal exporting countries, Mexican imports were valued at C\$25.8 million in 1977 and C\$31.7 million in 1978. However, approximately 75% of those amounts were for frozen, unshucked shrimp purchased for further processing and re-export. (See appendix table 2 for selected countries' exports to Mexico).

Virtually all relevant factors would appear to rule out any appreciable increase in the nation's import requirements for domestic consumption. These factors include all the essential elements of the fisheries plan, such as expansion of fleet and onshore facilities, establishment of joint ventures with other countries in fishing, processing and production of equipment, and the declared intention of more than doubling the domestic catch.

C. POTENTIAL FOR CANADIAN BUSINESS

1. Export Prospects

Canadian sales of fish and products to Mexico are almost non-existent, as can be seen in appendix table 2. The figures indicate that Norway is the major supplier of salted groundfish, including the traditional favourite, dried cod.

In 1975, Canada sold \$7 000 worth of boneless cod fillets to Mexico. For the years 1976 through 1978, no sales at all were recorded. The appendix table reflects a similar disappearance of the market in Mexico for other Canadian products.

Taking all factors into account, it would appear that the prospects of developing any significant market in Mexico for Canadian products are extremely limited.

Canada, in fact, is a major buyer of Mexican shrimp, as shown in appendix table 1. In 1978, Canada imported 652 tonnes of large, peeled shrimp from Mexico, with a value of \$6.4 million.

If there is any opportunity for Canadian enterprise, it would appear to lie in the establishment of joint-venture arrangements between Canadian and Mexican private-sector interests. The joint venture rationale, from the Mexican viewpoint, is easily understood. Mexico has large underutilized natural resources, and in many areas lacks the financial, technical and organizational expertise to reach its extensive development targets. The mentality of labour-intensive operations prevails for the most part throughout Mexico but has disappeared in North American products and processes which tend to be capital-intensive due to long prevailing high costs of labour. Therefore, equivalent parts of the product or process could be substituted without sacrificing performance criteria or quality and thereby committing local available resources and not simply capitalizing on opportunities on a "spot" basis. This arrangement has proven successful in Brazil and other intermediate developing countries, and should not be overlooked.

A word of warning to prospective Canadian investors is in order, however. Mexican government restrictions and requirements for approval are very complex. There is a "red tape factor" that potential Canadian participants might find extremely discouraging. A Mexican partner who knows his way through the bureaucratic maze might be essential in overcoming this obstacle.

There is a possible opening also for Canadian government assistance, either directly or in support of a joint private venture, in experimental fishing and other scientific means of assessing the size of the fish stock in Mexican waters. At present, there is a serious absence of reliable biological information on which to base projections of stocks and potential harvests.

Canadian entrepreneurs who want to explore the limited possibilities in Mexico would be well advised to investigate, as well, the various market entry requirements imposed by the Mexican government, along with the tariff and non-tariff barriers, which are examined in more detail in the following section.

## 2. Tariffs and Licensing

A system of high tariffs and import licensing effectively control the entry into Mexico of foreign fisheries products for domestic consumption. As noted previously, Mexican fish imports were valued at \$31.7 million in 1978, but that was mostly shrimp for processing and re-export, and imports for consumption have been running at a value of between C\$5 million and C\$8 million.

As an illustration of the kind of tariff barriers faced by imports, the tariff on dried, salted cod was increased to 50% in 1980 from 25% in 1979. Where there was once a reduction for semi-processed or refrigerated salted cod, such a provision no longer exists.



Following is a tariff rate schedule for major fish products as of December 15, 1981.

1. Fresh or frozen fish (3.01)	AD VALOREM PERCENT	
	Current	Former
(X) Salmon	100	75
(X) Sardine	100	80
(X) Eels	100	50
(X) Flounder	100	75
(A)(X) Cod	35	20
(A)(X) Other	25	25

(1) Live fish from Lafta countries are exempt.

2. Fish - salted, pickled in brine, or smoked (3.02)	AD VALOREM PERCENT	
	Current	Former
(X) Salmon	100	100
(X) Herring	100	100
(A)(X) Cod	75	50
Hake (dried/smoked)	100	100
(A) Other	25	25

3. Crustaceans and molluscs, fresh and frozen, dried, salted.	AD VALOREM PERCENT	
	Current	Former
(X) Squid	50	50
(A)(X) Other	25	25

4. Shellfish, prepared or preserved.

This includes canned shellfish. Import licence is not required, but imports are subject to 100% duty.

(A) Import License Required

(X) Subject to compensated trade tax payable to Mexican foreign trade institute averaging about 6% in addition to AD VALOREM duty.

5. Fish, prepared or preserved.

Products are subject to 100% duty, except for caviar, which is allowed into Mexico at 80%.

3. Non-Tariff Barriers

Currently licences for imports are issued using the following priorities: (1) raw materials and items necessary for manufacturing processes; (2) capital goods which will increase production or provide substitutes for imports; (3) replacement parts and (4) other products, including fishery food products.

In the past, decisions on the granting of licences were made administratively; there were few published quotas or specific criteria for approval of applications. However, under the revised Mexican import regime all quotas and criteria for their distribution or assignment among importers are to be announced in the Diario Oficial.

Exporters are advised to contact their importers in Mexico for information concerning the effects of the import measures on specific products.

The Mexican government generally has ceased issuing import licences specifying port of entry; in such cases merchandise can be imported through any port.

Goods which do not require a licence may be imported without quantitative limitation.

Licences usually are not granted for the importation of products which are produced in the country or for which locally produced goods can be substituted. This policy is designed to protect new investment and to assure that foreign exchange is primarily utilized for imports required for industrial growth. Licences also may not be granted for items considered non-essential, in order to improve Mexico's balance of trade position. The import licensing system is generally applied in a

non-discriminatory fashion and imports from all countries are treated equally, with the exception of those from the member countries of the Latin American Free Trade Association (LAFTA)\* which enjoy reduced rates or duty-free entry on items in Mexico's schedule of concessions.

Some products for importation such as prepared feeds and packaged foodstuffs must be registered with and approved by appropriate Mexican agencies before their importation and sale are permitted. The importation of food and food additives is governed by a system of special regulations which also control the entry of such items as firearms, petroleum, books and magazines, salt and pallets and containers.

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\* The constitution of LAFTA expired Dec. 31/80 and was replaced by the Latin American Integration Association (ALADI).

D. SUMMARY AND CONCLUSION

1. The Government of Mexico has launched a program aimed at achieving financial self-sufficiency, and with it self-sufficiency in food production along with a general improvement in the diet of an estimated 31 million Mexicans who are seriously undernourished.
2. Development of the fisheries industry is an important element of the program, which is intended not only to meet domestic food requirements but to produce a surplus for export. Mexican fish landings have already increased significantly, from 703.5 thousand tonnes in 1978 to around 1 million tonnes, and Mexican officials are hopeful the catch will grow to 2.4 million tonnes in 1982.
3. However, the fact is that Mexicans are not enthusiastic consumers of fish. Consumption is small by both regional and global standards, amounting to just 4.6 kilograms per capita in 1975. When Mexicans do buy fish, they tend to concentrate on a relatively few familiar species, and are reluctant to try anything new.
4. But that situation may change if the government is successful in promoting increased consumption of fish. Government agencies attempting to create a demand for new products are hoping to develop a market for the "unfamiliar" species, including the estimated 350 000 tonnes dumped overboard annually from the "bycatch" of Mexican shrimp fishermen.
5. Canadian sales of fish and products to Mexico are almost non-existent, and the prospects are extremely limited. Joint ventures with Mexican interests might have possibilities, but there is a "red tape" factor that could be discouraging. Canadians who may be interested would be well advised to establish Mexican contacts with knowledge of the local bureaucracy.
6. Mexican imports generally are restricted by high tariffs and import licence regulations. Fish imports were worth C\$31.7 million in 1978, but approximately 75% of that value was in purchases of frozen, unshucked shrimp for further processing and re-export.

7. Canada is a significant buyer of Mexican shrimp. In 1978, Canada imported 652 tonnes of large, peeled shrimp from Mexico, with a value of \$6.4 million.
8. While prospects for developing any significant market for Canadian Fish products in Mexico are limited, there may be some opportunities for Canadian saltfish. There is a market for saltfish in Mexico of which Norway is a major supplier. There may be opportunities for the Canadian product to displace that from Norway if we are price competitive.
9. With respect to fisheries competition from Mexico, Mexico's primary fisheries are shrimp, tuna and anchovy and therefore do not compete to any extent with Canada's fish exports. Mexico also has a small incipient squid fishery. Although the Mexican squid does not presently compete with the Canadian illex variety, in the future it could represent a source of competition as a product for processing in the Japanese market.

Depending on the success of efforts to promote development of the domestic industry, and assuming that scientific studies establish the availability of adequate resources, Mexico could also offer competition in sales of other species.

APPENDICES

APPENDIX I

TABLE I

NATIONAL PLAN OF FISHING DEVELOPMENT, 1977-1982

NEW FISHING VESSELS BY FISHERIES AND YEARS

<u>Type of Vessel</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1978</u> <u>1982</u>
Tunaboats	19	26	23	20	14	102
Anchovy-Sardine Seiners	30	25	7	--	--	62
Shrimp Trawlers	114	150	7	--	--	277
Groundfish Trawlers	7	12	3	--	--	82 <sup>1</sup>
Large Stern Trawlers	3	1	--	--	--	4
Medium Hake Trawlers	2	5	5	--	--	12
Seaweed Harvester	1	--	--	--	--	1
Red Crab Harvester	--	4	2	2	2	10
Replacement Vessels	--	--	--	--	--	343
Snapper/Grouper Smacks	--	--	--	--	--	100 <sup>2</sup>
TOTAL	176	223	53	22	16	993
BOATS	1 225	1 230	1 222	1 223	600	8 000 <sup>3</sup>

Notes:

1. Includes 60 groundfish trawlers of the IDB program in which the investment has already been made.
2. 100 snapper/grouper smacks are already in operation.
3. Includes 2 500 replacement boats.

Source: Mexican Department of Fishing.

APPENDIX II

TABLE 2

NATIONAL PLAN OF FISHING DEVELOPMENT, 1977-1982

NEW INDUSTRIAL PLANTS BY PROCESSES AND YEARS

<u>Type of Plants</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1978</u> <u>1982</u>
Canning Plants	6	5	4	2	--	17
Freezing Plants	2	2	3	3	--	10
Drying Plants	1	--	--	1	--	2
Salting & Fish Cake Plants	--	1	2	3	--	6
Salting & Drying Plants	2	2	3	--	--	7
Fish-Meal Plants	4	5	7	8	--	24
Filleting Plants	--	1	1	1	--	3
Concentrates Plants	3	4	2	3	--	12
Freezing-Canning Plants	3	3	--	--	--	6
Multiple-Use Plants	39	54	50	36	12	191
TOTAL	60	77	72	57	12	278

SOURCE: Mexican Department of Fishing.



## APPENDIX III

TABLE 1

## FISHERIES EXPORTS OF MEXICO, 1975-78

Product	Destination	1975			1976			1977			1978		
		tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG
Crawfish	France	7	66	9.55	--	--	--	--	--	--	--	--	--
Wolffish, fillets	US	3	4	1.36	--	--	--	--	--	--	--	--	--
Quahaugs, frozen	Japan	--	--	--	--	--	--	14.4	29	2.07	2.0	5	2.51
Clams, canned	US	--	--	--	--	--	--	--	--	--	48.8	143	2.93
Crab pieces & pastes	US	12	15	1.29	--	--	--	193.0	481	2.49	143	714	5.00
Crabmeat, frozen	Canada	--	--	--	--	--	--	0.5	0.3	6.72	0.8	14	17.43
Crab parts, frozen	US	--	--	--	--	--	--	572.0	349	0.61	789	475	0.60
Cod fillets, frozen	US	3.6	4	1.36	--	--	--	--	--	--	--	--	--
Cod, salted	France	1 759	1 612	0.91	--	--	--	--	--	--	--	--	--
Eels, live	Japan	14	63	4.63	--	--	--	--	--	--	--	--	--
Rockfish, frozen	US	41	30	0.74	--	--	--	243	242	0.99	510	562	1.10
Lobster, canned	US	3.6	34	9.53	--	--	--	--	--	--	1	6	6.44
Lobster, whole frozen	US	761.5	4 130	5.42	794	3 863	4.86	769	4 114	5.38	438	2 942	6.71
Lobster tails, frozen	US	277	2 082	7.50	294	2 212	7.51	230	2 635	11.44	266	3 173	11.91
Lobster meat	Canada	23.6	217	9.20	6	82	13.40	15	199	12.80	26	439	16.66
Mackerel, dressed frozen	US	1.6	5	3.57	--	--	--	--	--	--	--	--	--
Mackerel, spanish frozen	Japan	--	--	--	--	--	--	20	17	0.87	10	13	1.31
Mussels, canned	Denmark	1	1	1.00	--	--	--	--	--	--	--	--	--
Ocean Perch, dressed frozen	US	3 094	2 410	0.77	3 125	2 712	0.86	5 252	7 521	1.43	--	--	--
Pike, dressed frozen	US	17	35	2.08	--	--	--	--	--	--	--	--	--

## APPENDIX III

TABLE 1 (Cont'd)

## FISHERIES EXPORTS OF MEXICO, 1975-78

Product	Destination	1975			1976			1977			1978		
		tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG
<u>Shrimp or prawn frozen</u>													
in shell	US	21 682	79 806	3.68	25 011	97 025	3.87	22 826	112 271	4.91	20 912	104 775	5.01
peeled breaded	US	436	1 737	3.98	336	1 538	4.74	264	1 186	4.48	67	309	4.59
raw/peeled	US	11 349	60 726	5.35	10 539	64 289	6.01	10 914	85 138	7.80	11 296	89 896	7.95
peeled N.E.S.	US	20	66	3.29	--	--	--	36	289	8.14	62	409	6.65
	UK	--	--	--	--	--	--	--	--	--	19	151	8.17
peeled large	Canada	521	3 321	6.37	603	5 169	8.57	879	7 961	9.05	652	6 442	9.87
Canned shrimp	US	0.9	3	4.23	--	--	--	--	--	--	--	--	--
Shrimp prepared, N.E.S.	France	--	--	--	--	--	--	--	--	--	57	354	6.22
Sub total shrimp		34 008.9	145 659	4.28	36 489	168 066	4.60	34 919	206 845	5.92	33 065	202 336	6.12
<u>Prawns &amp; lobsters, frozen NES</u>													
	Japan	4 085	25 125	6.15	5 235	41 885	8.00	4 184	37 746	9.02	7 860	79 045	10.05
Salmonidae frozen	US	17	8	0.51	--	--	--	--	--	--	--	--	--
Sardines canned	US	82	79	0.96	372	327	0.87	986	828	0.84	2 457	2 656	1.08
Scallops schucked	US	34	113	3.30	16	83	5.07	19	74	3.85	--	--	--
<u>Tuna, whole frozen</u>													
Yellowfin	US	2 716	1 501	0.55	3 368	1 903	0.56	8 677	6 687	0.77	10 147	9 868	0.97
Yellowfin	Japan	--	--	--	--	--	--	41	64	1.56	--	--	--
Albacore	US	44	22	0.51	--	--	--	--	--	--	--	--	--
Albacore	Japan	--	--	--	--	--	--	0.3	--	--	--	--	--
Skipjack	US	519	285	0.54	2 911	1 428	0.49	1 937	1 113	0.57	5 386	4 933	0.91
Skipjack	Japan	--	--	--	--	--	--	2.8	1	0.57	--	--	--
N.E.S.	US	1 919	1 038	0.54	808	457	0.56	730	559	0.76	433	310	0.71
N.E.S.	Japan	--	--	--	--	--	--	9	24	2.87	--	--	--

APPENDIX III

TABLE 1 (Cont'd)

FISHERIES EXPORTS OF MEXICO, 1975-78

Product	Destination	1975			1976			1977			1978		
		tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG
Canned light tuna	US	375	673	1.79	872	1 824	2.09	76	182	2.38	1 605	3 346	2.08
Bluefin fresh/chilled	Japan	--	--	--	33	19	6.00	--	--	--	--	--	--
Swordfish, frozen	Japan	81	128	1.58	407	628	1.54	234	347	1.48	--	--	--
Octopus, frozen	Japan	--	--	--	--	--	--	11	24	2.26	--	--	--
Abalone, canned	Japan	114	685	5.99	88	676	7.66	74	755	10.26	48	580	12.06
Abalone, shucked	US	1 663	10 482	6.30	1 943	14 412	7.41	1 795	16 355	9.11	1 338	14 832	11.08
Croakers, frozen	Japan	--	--	--	--	--	--	--	--	--	88	144	1.65
Seafish, miscell., frozen	Canada	--	--	--	6	12	1.85	17	30	1.80	--	--	--
Shellfish, miscell., frozen	Canada	22	164	7.43	25	74	2.99	29	103	3.59	25	90	3.60
Shellfish, miscell., frozen	US	227	607	2.66	541	1 114	2.06	775	1 884	2.37	428	1 363	3.18
Fish in general N.E.S.	US	2 793	5 482	1.96	3 321	5 826	1.75	3 440	7 696	2.22	9 940	21 037	2.10
Fish in general N.E.S.	Japan	--	--	--	5	6	1.20	27	11	4.07	30	58	1.93
Fish in general N.E.S.	Other	23	23	1.00	6	15	2.60	2	30	15.13	158	1 526	2.60
Total		54 741.8	202 782	--	60 665	247 624	--	65 294	296 948	--	75 242.6	350 610	--

Source: Department of Industry, Trade and Commerce, Fisheries and Fish Products Division, Ottawa. Computer Data Bank on Fisheries Trade.

Note: Mexican official statistics are incomplete. It is estimated that the numbers in this Table as reported by countries of destination represent well in excess of 90% of Mexican exports.

## APPENDIX IV

TABLE 2

## SELECTED COUNTRIES' EXPORTS INTO MEXICO, 1975-1978

Product	Destination	1975			1976			1977			1978		
		tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG
<b>Salted groundfish</b>													
Cod, dried	Norway	459	1 090	2.37	--	--	--	454	1 346	2.96	272	795	2.92
Cod, dried	Spain	2	5	2.75	--	--	--	10	29	2.95	--	--	--
Cod, boneless fillets	Canada	0.6	7	11.20	--	--	--	--	--	--	--	--	--
Haddock, dried	Norway	3.6	11	3.27	--	--	--	27	59	2.19	17	39	2.29
Pollock, dried	Norway	2.7	6	2.25	--	--	--	178	363	2.04	54	116	2.15
Pollock, dried	W. Germany	120	190	1.58	--	--	--	133	245	1.85	--	--	--
Ling dried	Norway	547	1 121	2.04	--	--	--	577	1 473	2.55	924	2 203	2.38
<b>Sub total salted groundfish</b>		<b>1 134.9</b>	<b>2 430</b>	<b>2.14</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>1 379</b>	<b>3 515</b>	<b>2.55</b>	<b>1 267</b>	<b>3 153</b>	<b>2.49</b>
<b>Stockfish</b>													
Cod, split	Norway	124	637	5.10	--	--	--	124	637	5.14	235	1 190	5.07
Pollock, split	Norway	--	--	--	--	--	--	6	24	3.88	--	--	--
Pollock, round	Norway	--	--	--	--	--	--	41	151	3.69	--	--	--
<b>Sub total stockfish</b>		<b>124</b>	<b>637</b>	<b>5.10</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>171</b>	<b>812</b>	<b>4.75</b>	<b>235</b>	<b>1 190</b>	<b>5.07</b>
Cod liver oil	Iceland	--	--	--	--	--	--	72	57	0.79	175	153	0.87
Cod, wh. dr. & fillets	US	225	184	0.82	--	--	--	83	171	2.06	202	455	2.25
Crabmeat, canned	Japan	6.5	50	7.79	--	--	--	--	--	--	--	--	--
Crab, frozen king legs	US	--	--	--	14	62	4.58	13	64	5.00	--	--	--
Eel, frozen	France	35	260	7.43	111	526	4.74	43	223	5.19	97	702	7.24

## APPENDIX IV

TABLE 2 (Cont'd)

## SELECTED COUNTRIES' EXPORTS INTO MEXICO, 1975-1978

Product	Destination	1975			1976			1977			1978		
		tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG
<b>Herring</b>													
Whole, dressed, fresh	Canada	18	12	0.66	18	15	0.81	--	--	--	--	--	--
Whole, dressed, frozen	Canada	699	434	0.62	469	384	0.81	--	--	--	--	--	--
Roe, frozen or cured	Canada	71	42	0.58	--	--	--	--	--	--	--	--	--
Lumpfish roe	Denmark	8	26	3.36	4	21	5.49	2	10	5.29	3	28	9.56
Mussels canned	Spain	1	3	3.01	7	13	1.88	12	25	2.12	1	2	2.49
Oysters, canned, water	Japan	--	--	--	12	22	1.87	--	--	--	--	--	--
Oysters, canned, smoked	Japan	--	--	--	--	--	--	--	--	--	37	276	7.43
<b>Shrimp</b>													
Frozen, unshucked	US	3 868	15 834	4.09	3 061	15 811	5.16	3 792	19 372	5.10	4 284	24 093	5.62
Chilled, bulk	US	17	68	3.94	13	62	4.90	126	561	4.45	130	580	4.45
Chilled, other	US	16	92	5.63	15	59	4.04	27	55	2.03	72	364	5.06
Salmon, smoked	Canada	3.7	11	3.00	0.7	6	8.40	0.6	8	12.80	0.4	5	12.46
<b>Sardine &amp; Pilchard</b>													
Canned	US	210	197	0.94	173	171	0.99	163	200	1.23	203	269	1.33
Frozen, whole	Portugal	--	--	--	30	22	0.76	30	26	0.89	--	--	--
Prepared/preserved	Spain	--	--	--	21	31	1.50	20	38	1.93	--	--	--
Miscellaneous finfish	Other	--	--	--	32	103	3.22	--	--	--	--	--	--

## APPENDIX IV

TABLE 2 (Cont'd)

## SELECTED COUNTRIES' EXPORTS INTO MEXICO, 1975-1978

Product	Destination	1975			1976			1977			1978		
		tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG	tonnes	C\$000	\$/KG
<b>Tuna</b>													
Albacore	Spain	--	--	--	4	12	3.16	--	--	--	--	--	--
Bonito, canned	Spain	--	--	--	2	6	3.12	--	--	--	--	--	--
Other	Spain	--	--	--	11	31	2.90	8	30	3.83	--	--	--
Miscell. groundfish N.E.S.	US	--	--	--	642	522	0.81	--	--	--	--	--	--
Sole, fillets frozen	Neth	--	--	--	30	160	5.35	210	234	1.12	141	172	1.22
Sprat, canned	Denmark	7	10	1.43	--	--	--	--	--	--	6	25	4.19
Octopus, canned	Spain	--	--	--	22	45	2.06	16	44	2.76	--	--	--
<b>Shellfish, General</b>													
Salted, dried, N.E.S.	US	--	--	--	--	--	--	26	74	2.83	27	76	2.80
Frozen, N.E.S.	US	--	--	--	20	76	3.84	19	63	3.41	27	124	4.63
Canned, N.E.S.	Japan	--	--	--	32	117	3.66	21	108	5.17	--	--	--
Frozen, N.E.S.	Spain	--	--	--	3	13	4.55	8	61	7.63	--	--	--
<b>TOTAL</b>		<b>6 444.1</b>	<b>20 290</b>	<b>--</b>	<b>4 746.7</b>	<b>18 290</b>	<b>--</b>	<b>6 241.6</b>	<b>25 751</b>	<b>--</b>	<b>6 907.4</b>	<b>31 665</b>	<b>--</b>

Source: Department of Industry, Trade and Commerce, Fisheries and Fish Products Division, Ottawa. Computer Data Bank on Fisheries Trade.

Note: Official Mexican fisheries import statistics are unavailable. It is estimated that the numbers in this Table represent well in excess of 90% of Mexican fisheries imports.

APPENDIX V

TABLE 3

FISH LANDINGS BY MEXICO, 1975-1979  
(000 tonnes)

<u>SPECIES</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Total	451.3	524.7	562.1	703.5	1 000.0
Food Fish	293.5	282.4	278.6	400.0	NA
abalone	2.7	2.7	2.5	1.9	NA
clams	2.9	0.8	4.0	1.8	NA
tuna	17.6	15.0	18.7	20.7	30.0
skipjack	6.4	8.3	3.9	5.6	NA
bonito	3.8	2.1	2.5	2.5	NA
shrimp	43.8	47.2	46.8	44.0	NA
small sharks	5.0	6.2	7.5	9.7	NA
conger	2.7	2.7	2.9	2.9	NA
snapper	3.8	3.5	4.5	5.2	NA
lobster	1.7	1.7	1.6	1.6	NA
mullet	5.5	5.3	5.7	6.8	NA
sea bass	13.0	11.0	11.3	12.5	NA
shad	11.0	11.2	12.4	16.0	NA
oyster	27.0	29.2	27.5	28.6	NA
octopus	3.6	4.5	6.2	2.4	NA
rock cod	2.0	2.2	2.2	2.0	NA
sardines	76.2	64.2	45.7	53.7	NA
sawfish	9.0	7.5	8.2	8.8	NA
large sharks	6.2	7.1	8.0	9.5	NA
turtle	3.7	3.3	3.2	4.7	NA
others	41.7	43.8	48.9	72.9	NA
unrecorded*	--	--	--	80.0	NA
Industrial items	157.8	242.3	283.5	303.7	NA
anchoveta	55.7	77.6	140.1	142.9	NA
sardines	45.4	79.0	62.8	83.8	NA
marine algae	4.3	4.6	3.8	2.9	NA
sea grasses	11.1	20.1	13.9	11.7	NA
kelp	27.4	41.6	41.7	30.0	NA
others	13.0	18.2	19.2	30.7	NA

Source: Department of Fisheries, Director General of Information and Statistics, Mexico.

\* Investigations by the Department of Fisheries show that in 775 communities, having a total population of 650 000, between 80 000 and 100 000 tonnes of edible fish were landed, including 15 000 tonnes originating from aquaculture projects. This production is being marketed commercially (not auto-consumed). However, it was not recorded officially through the year because there were no fishery offices in these communities. This figure does not include catches which evaded registration by the 142 offices which operated in Mexico in 1978. There are not such estimates for previous years.

