



# PIDP

## Pacific Islands Development Program

### Multinational Corporations in the Pacific Tuna Industry

#### TUNA INDUSTRIES IN MEXICO, THE PHILIPPINES AND THAILAND: A COMPARATIVE ANALYSIS

by

Linda Lucas Hudgins, Ph.D.



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## FOREWORD

At its inaugural meeting in Pago Pago in 1981, the Pacific Islands Development Program was directed by the Standing Committee of the Pacific Islands Conference to evaluate the potential beneficial role of multinational corporations in the Pacific islands region. In 1984, the Standing Committee again addressed the question of multinational corporations and approved this study to be undertaken on a sectoral basis, with the tuna industry being the first sector to be examined.

The tuna industry was selected as the first sector for investigation by the Standing Committee because the tuna fishery and industry in the Pacific islands region affects all countries and territories. The broad objectives of the tuna sectoral study are (1) to analyze the current and future role of multinational corporations in the tuna industry in the Pacific islands region, and (2) to evaluate the potential contribution these corporations could make to industry development in the region. This is the first time that a comprehensive study of the tuna industry in the Pacific islands region will focus on regional and international issues affecting the industry from the perspective of all island countries.

A proposal outlining the tuna sectoral study was drawn up in 1984. This was done in consultation with the Forum Fisheries Agency and research commenced in January 1985. The study will produce a range of technical reports that will address issues critical to the development, management and expansion of tuna industries in the Pacific islands region.

This synthesis, prepared by Dr. Linda Lucas Hudgins, contrasts the reports completed by G. J. Crough on the Thai industry, Jesse M. Floyd on the Philippine industry and Linda Lucas Hudgins on the Mexican industry. The synthesis points out the importance of these three countries in global tuna markets and analyzes the development pattern chosen by the governments of Mexico, the Philippines and Thailand for their respective tuna industries.

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## **ABSTRACT**

Mexico, the Philippines and Thailand have become major actors in international tuna markets in the last ten years. The Mexican government targeted the harvesting sector for development. The Mexican purse seine fleet has the potential to become one of the top four worldwide tuna producing fleets. The Philippines, formerly a leader in international markets, is constrained from future expansion by resource depletion problems and inappropriate government policy. Thailand now has 57 percent of the U.S. canned tuna market, displacing exports from both Japan and the Philippines. In all the countries, government policy affected relative industry performance.

## INTRODUCTION

Mexico has the largest and newest purse seine tuna fleet in the world, and since 1980, has become a major harvester competing with the fleets of the United States, Japan, the Philippines and Spain in the international tuna market.<sup>1</sup> Thailand, since 1983, has become the major exporter of canned tuna to the United States competing with processing industries in the Philippines, the United States, Japan and Taiwan. The Philippine industry, formerly an international leader in tuna markets, has contracted due to resource depletion problems and inappropriate government policy.

The tuna industries in Mexico, the Philippines and Thailand represent three diverse cases of industry development at both the harvesting and the processing levels. In each case government policy affected industry performance. Furthermore, because they have become major actors in world tuna markets, the actions of the industries in Mexico, the Philippines and Thailand will have repercussions for tuna industries in the Pacific islands region.

The tuna harvests of Mexico, the Philippines and Thailand represent about 18 percent of the world's tuna catches and 26 percent of all tuna caught in the Pacific Ocean. These countries together have over 323,000 tonnes of tuna canning capacity, which is about 15 percent of the world's total.

The four issue areas included in this synthesis are: (1) an industry overview with discussion of fleet capacity, tuna resource availability and processing activity for each country; (2) government policy related to tuna industry development with attention to both national and industry specific promotional policies within each country; (3) position of each country relative to international tuna markets with discussion of tuna exports, imports, and international relations with the United States, and (4) concluding remarks that identify lessons from the tuna industry development in the three cases.

## INDUSTRY OVERVIEW

### Fleets

The tuna fleets of Mexico, the Philippines and Thailand reflect the differences that exist between fleets that have grown up out of artisanal based fisheries and those which have been developed for the commercial export market from the outset. Mexico concentrated on development of a modern purse seine fleet with distant-water capabilities while Thailand and the Philippines targeted development for domestic processing. The Mexican fleet sells primarily on the raw tuna international market for processing elsewhere, while the fleets in the Philippines and in Thailand sell to their domestic canning industry, which then exports, primarily to the United States. Direct comparisons of fleet productivity in the three countries are not useful because the compositions of the fleets by vessel size and numbers of vessels engaged in fishing varies widely in each



country. A critical difference, however, is that the Mexican fleet has distant-water capabilities which enables it to fish well out of its own territorial waters. For this reason domestic tuna resource availability is not a short run problem for the Mexican fleet as it is for the Philippines and Thailand.

The differences in vessel productivity between the commercial fleet of Mexico and those of the Philippines and Thailand are given in Table 1. For example, in 1984, 59 Mexican purse seiners caught 72,800 tonnes of tuna; the Philippine fleet of over 112,000 artisanal and commercial vessels caught about 225,700 tonnes, and the Thai fleet of 20,000 multipurpose multispecies vessels (almost all less than 100 gross registered tonnes [GRT] in size) caught 76,800 tonnes.

Table 1. Tuna catches in Mexico, the Philippines and Thailand, 1976—84

Year	000 tonnes			
	Mexico	Philippines	Thailand	Total
1976	—	124.9	9.7	134.6
1977	19.5	215.9	12.9	248.3
1978	25.4	183.9	10.3	219.6
1979	31.9	197.3	16.8	246.0
1980	33.1	200.8	13.6	247.5
1981	70.5	203.7	22.2	296.4
1982	41.4	216.6	49.3	307.3
1983	27.7	242.2	85.3	355.2
1984	72.8	225.7	76.8	375.3

Sources: Crough, 1987; Floyd, 1986; Hudgins, 1986.

The Mexican fleet consists of both baitboats and purse seiners. About 30 percent are baitboats of less than 400 GRT. These vessels fish close in to the Mexican coastline. The majority of the fleet are purse seiners. About 26 percent are between 400 and 750 GRT and 44 percent are 750 GRT or larger. The seiners are engaged in a full time commercial fishery enterprise in the Mexican EEZ and along the Pacific coastline of central America. The Mexican fleet has the capacity to catch over 110,000 tonnes of tuna annually. The catches are between 70 and 90 percent yellowfin tuna (*Thunnus albacares*) with the remainder mostly skipjack tuna (*Katsuwonus pelamis*). The fleet is 60 percent owned by private investors and is based at Ensenada, Baja California, Mexico, about 40 km south of San Diego, California (United States).

The tuna fleet in the Philippines has over 110,000 artisanal vessels mostly less than 3 GRT in size. The fleet has also 2,349 identified commercial vessels, mostly less than 100 GRT. Artisanal fishermen harvest about 51 percent of the country's total tuna catch consisting of several species, although 50 percent are yellowfin, skipjack and bigeye tuna

(Thunnus obesus). The fleet fishes year round in various parts of the country with a variety of gears including handlines, gill nets, ringnets and purse seines. The introduction of payaos (fish aggregating devices) in the late 1970s contributed both to a dramatic increase in tuna catches and to eventual resource depletion problems.

The Thai fishing fleet ranks seventh in the world in size with about 20,000 vessels. All vessels are multipurpose and multispecies. Tuna accounts for between 3 and 6 percent of total fleet catches. The major species, eastern little tuna (Euthynnus affinis) and longtail tuna (Thunnus tonggol), are caught year round with purse seines, gill nets and troll lines. Most of the fleet catching tuna is vessels of less than 25 meters in length fishing in Thai territorial waters. In recent years, the fleet has lost a significant portion of its fishing area due to maritime disputes with neighboring countries. The size of fish caught has also declined and because these are unsuitable for canning, they are used in the domestic fishmeal industry. The fleet provides about 30 percent of the tuna utilized by the domestic canning industry, with the remainder being imported.

#### Resource availability

There appears to be no immediate resource availability problems related to the tuna stocks in the eastern tropical Pacific (ETP), the area which includes the Mexican EEZ. This is in contrast to resource depletion problems in Thailand and in the Philippines. The source of this depletion is largely due to territorial restrictions in Thailand (i.e., several overlapping EEZs) and to illegal fishing and catches of juvenile tuna in the Philippines.

Tuna stocks in the ETP are primarily yellowfin and skipjack tuna. Stocks in the ETP have been managed since 1950 by the Inter-American Tropical Tuna Commission (IATTC) although political conflicts since the early 1970s have weakened the organization's strength as a regulatory body. In particular, a number of Latin American countries have withdrawn from the IATTC in protest over quota allocations which they believe favor countries with large historical catches (e.g., the United States) over those with newly developing fleets (e.g., Mexico). A number of Latin American countries, led by Mexico, are forming an alternative management regime, the Eastern Pacific Tuna Organization under the auspices of CLDEPESCA—Organización Latinoamericana de Desarrollo Pesquero—(Latin American Organization for Fishery Development).

The IATTC estimates that the maximum sustainable yield (MSY) of all tunas in the ETP is 545,400 tonnes. This MSY can support current levels of fishing effort. The Mexican government, however, intends to license more foreign vessels than it has done previously and this will put added pressure on stocks. The potential catch of the Mexican fleet, when fully developed, is about 140,000 tonnes, some 30,000 tonnes less than the estimated annual sustainable yield of tuna in the Mexican EEZ. The Mexican fleet is prepared to fish farther south along the Pacific coastline of the

Americas or in the central and western Pacific if faced with resource problems.

The tuna resource availability around the Philippines is in question and overfishing has been cited as a cause for the contraction of the Philippine tuna fishery since 1980. Between 1981 and 1985 at least 3,000 payaos were put in place in Philippine waters. In addition, several companies entered the industry with large purse seine vessels leading to overcapitalization. Reports also indicate that there is a serious illegal fishing problem by foreign vessels. These vessels could be catching up to 100,000 tonnes annually. Depletion of the domestic resource has led to increased imports of frozen tuna to supply the Philippine canning industry.

In Thailand the declaration of 200-mile EEZs by neighboring countries resulted in the loss to Thai fishermen of 40 percent of their traditional fishing areas. Nowhere does the Thai EEZ extend the full 200 miles offshore because of competing claims from neighboring countries. As a result of the decreased fishing area available to Thai fishermen, the estimated MSY of several marine species has been exceeded for years. Thai fishermen also are reportedly catching younger fish as in the Philippines. Thailand's fishing fleet accounts for only a small proportion (3--5 percent) of the total tuna catches from the western and central Pacific and from the eastern Indian Ocean.

### Processing

The tuna processing sectors in the Philippines and in Thailand developed very rapidly and have been successful in exporting to the U.S. market, and gaining a large share of the market, over the past 10 years. The exports are the most important market because there is no significant domestic demand for canned tuna in the Philippines or Thailand.

The Philippines were a major exporter of raw, frozen tuna to the United States until the early 1980s when resource depletion became a serious problem. The canning sector expanded rapidly in 1980 and absorbed much of the frozen tuna which previously had been exported but still required additional imported tuna to fully supply input needs. The major exporters of canned tuna from the Philippines in 1980 were (1) Judric, by 1982 fully owned by SAFCOL, an Australian based company; (2) Pure Foods, a joint venture between American Hormel International and Filipino-Japanese investors with an estimated 19 percent of the export volume; and (3) Century, a locally owned corporation. Between 1980--83 the Philippines gradually displaced Japan as the most important exporter of canned tuna to the United States. However, general economic conditions in the Philippines began to deteriorate and currency problems developed. It became increasingly difficult for the Philippine domestic canning sector to acquire hard currency for tuna and equipment imports. Today the industry in the Philippines has about an 11 percent share of the U.S. market, down from 32 percent in 1982, and it is expected to contract even further (Table 2).

Table 2. Tuna canning production in the Philippines and Thailand relative to global canned tuna production and U.S. imports, 1979—86

Year	Philippine production (canned tuna) tonnes	Thailand production (canned tuna) tonnes	U.S. imports (canned tuna) tonnes	Global production (canned tuna) tonnes
1979	4,079	—	23,634	611,000
1980	11,151	—	29,088	648,000
1981	18,033	8,181	31,815	747,000
1982	19,411	15,453	39,996	702,000
1983	23,537	28,179	55,449	761,000
1984	22,725	39,862	74,538	856,000
1985	21,816	87,134	97,263	—
1986	—	92,591 <sup>a</sup>	—	—

Sources: Crough 1987:32, Floyd 1986:50, USITC 1986:72, 201.

<sup>a</sup> January—August only.

The decline of the tuna industry in the Philippines is attributable to resource depletion and currency problems as well as a number of institutional policies implemented by the government in response to poor economic conditions in the country. For example, an import ban placed on canned mackerel and sardines in 1983 was a measure introduced to conserve foreign exchange. The ban induced domestic canners to process more mackerel and sardines for domestic sales. However, this resulted in declines in canned tuna production and exports as capacity utilization was shifted toward mackerel and away from tuna.

The canning industry in Thailand now holds about 57 percent of the U.S. market for canned tuna (Table 2). There are three major companies which process and export tuna from Thailand: (1) Unicord Co. Ltd with sales of about US\$46 million annually (of which about 90 percent is tuna); (2) Thai Union Manufacturing Ltd, with sales of US\$50 million annually from a variety of seafood products and pet foods), and (3) SAFCOL (Thailand) Ltd, which is the largest exporter of processed seafood products from Thailand with annual sales of US\$70 million. SAFCOL is a joint venture with Australian interests, which until 1984, had substantial holdings in the Philippine canning industry. A fourth company, Thai Seri Group, has sales of US\$18 million annually and is the largest of the vertically integrated fishing operations with vessels, cold storage and canning capacity.

It has been estimated that there are more than 50 seafood canneries in Thailand compared with 18 multipurpose plants that process tuna in Mexico. The Thai canning sector grew by over 47 percent a year between 1977—84, is diversified from fruit and vegetable canning and employs at least 10,000 persons in direct canning operations with hundreds of others employed in can production, printing and packaging, paper box and carton production. It has been suggested that the government seek to limit the expansion of



the industry to about 15 million cartons of tuna annually, about 2 million more than present industry capacity.

Mexico has adequate processing capacity to can the domestic catch (100—140,000 tonnes annually) but there is little domestic demand for canned tuna. These canneries are used for fruits, vegetables and fishery products. The Mexican tuna development plan targeted the harvesting sector for development and sales of frozen (unprocessed) tuna in export markets and therefore did not plan to expand the cannery sector. Two new seafood only canneries however, are under construction. These canneries utilize French technology and capital and are expected to alleviate inefficiencies which exist in the multiproduct canneries. There are no plans for Mexico to export canned tuna.

Mexico, the Philippines and Thailand are competitive in world markets for canned tuna partly because of their low domestic wage structures. Wages for workers in the canning industry in all three countries are around US\$3.00 per day, about one-eighth of those in the United States and U.S. territories (Puerto Rico and American Samoa), exclusive of benefits. Wages in Thailand represent about 4.5 percent of total production costs while wages in Mexico are about 6 percent of total canning costs. In both cases, fresh fish represents the largest cost component, 58 percent in Thailand and 64 percent in Mexico.

#### **GOVERNMENT ACTIVITIES RELATED TO TUNA INDUSTRY DEVELOPMENT**

The governments of Mexico, the Philippines and Thailand have pursued different strategies in promoting their respective tuna industries. Mexico targeted the harvesting sector of the industry, a strategy to develop export markets for frozen tuna rather than processed tuna. Thailand targeted the processing sector of the industry with the intention of developing export markets in canned tuna. The Philippine government at different times directed policy at both the harvesting and the processing sector. In spite of industry planning, the industries both in Mexico and in the Philippines were severely affected by national economic crises which led to currency devaluations and shortages of foreign exchange needed to purchase equipment and unprocessed tuna.

The difference between official industry promotion in Mexico, the Philippines and Thailand is that the Mexican policies were more directly tailored to the fishing industry whereas the policies of the Philippines and Thailand were directed generally at exporting industries. However, there are some exceptions to this. The Thai government, for example, wanted to encourage local fishermen to increase fishing effort both in Thai waters and in neighboring waters to supply tuna for the canning industry. In order to do this, the government negotiated access treaties with neighboring countries permitting Thai fishermen to legally fish in these areas, and presumably, permitting them to make higher tuna catches. The Philippine government also allowed the canning sector special import concessions to import tuna for processing because domestic catches were insufficient to meet domestic demand.

The lesson from these different approaches seems to be that consistency in policy application predicts success more than any particular policy orientation. The Philippine government policies were uneven with respect to the fishing industry. This was because the government was attempting to deal with larger macroeconomic problems. Mexican policies, on the other hand, were flexible enough to support the development of the industry within the context of a national financial crisis.

Although different in orientation, the three countries share some common policies. In general the tuna industries in each country are private sector operations, with government support being provided through legislated preferences. For example, in order to enhance employment, all three countries imposed restrictions on vessel crewing, with preference being given to their respective nationals.

Mexico has been the most aggressive country of the three in directly promoting the development of the tuna industry (including vessel financing and vessel debt guarantees with foreign shipyards). Only Mexico has significant government ownership (22 percent) of vessels and canning capacity (55 percent). After declaring its EEZ and targeting the fishery sector for development, the Mexican government provided strong support for the industry. In 1980, for example, Mexico seized U.S. vessels fishing without licenses in the Mexican EEZ. The seizure led to imposition of a U.S. embargo on Mexican tuna imports that lasted from 1980 to 1986. The embargo cost the Mexican industry at least US\$200 million in lost sales. During this time the Mexican economy went into a deep recession. The government refinanced the tuna fleet and essentially assumed a US\$400 million debt with foreign shipyards. Moreover, for the duration of the embargo, the Mexican government canneries bought, canned and inventoried whatever catches were not sold on international markets.

The Philippines and Thailand have across the board legislation which promotes export-oriented industries by giving preferential treatment over a wide range of tax, tariff, employment training and capital depreciation issues. Some major legislative initiatives for Mexico, the Philippines and Thailand are summarized in Table 3.

Lastly, political problems or currency depreciation or appreciation, particularly relative to other tuna exporting country currencies, has in some cases affected the competitiveness of tuna exports from the three countries under review. In the case of Mexico, for example, the peso devalued but the U.S. embargo against Mexican tuna imports prohibited Mexico from taking advantage of this position.

Table 3. Selected legislation related to tuna industry development in Mexico, the Philippines and Thailand

Country	Legislation/promotional activity
<b>Mexico</b>	<p>National Fishery Development Plan (1977, 1986).  Establishment of Fishery Development Bank (1979).</p> <p>Fiscal Incentives:</p> <ul style="list-style-type: none"> <li>. 5 year reduced income tax rate.</li> <li>. Exemption from import/export taxes on vessels or equipment in free trade zone.</li> <li>. Vessel debt guarantee.</li> <li>. Vessel debt financing.</li> </ul>
<b>Philippines</b>	<p>Investment Incentives Act of 1968:</p> <ul style="list-style-type: none"> <li>. Generous deduction of start-up and labor training expenses.</li> <li>. Accelerated depreciation.</li> <li>. Exemption/reduction or deferment of duties and taxes on machinery and equipment.</li> <li>. Generous tax credits on domestic equipment purchases.</li> <li>. Certain income tax deductions and exclusions.</li> <li>. Protection from government competition.</li> </ul> <p>Export Incentives Act of 1971:</p> <ul style="list-style-type: none"> <li>. Tax credits, exemptions, and deductions related to export activities.</li> </ul> <p>Agricultural Investment Incentives Act of 1977:</p> <ul style="list-style-type: none"> <li>. Accelerated depreciation on fixed capital stock.</li> <li>. Tax deduction for transporting expenses from targeted areas to encourage agricultural development.</li> <li>. Tax deduction for training of Philippine nationals.</li> </ul>
<b>Thailand</b>	<p>Investment Promotion Act (1977):</p> <ul style="list-style-type: none"> <li>. Quarantees against nationalization, competition from the State.</li> <li>. Protection from imports.</li> <li>. Permission to own land, remit foreign currencies, bring in foreign technicians.</li> <li>. Reduction or exemption from import duty on machinery, raw materials.</li> <li>. Corporate income tax exemption for 3—8 years.</li> <li>. Withholding tax exemptions.</li> </ul> <p>Negotiation of access for Thai fisherman with neighboring countries.  Support for fishermen and cannery workers training.</p>

Sources: Crough, 1987; Floyd, 1986; Hudgins, 1986.

## POSITIONS IN WORLD TUNA MARKETS

Although international markets for frozen and canned tuna remain in flux, some trends are becoming apparent. The world's tuna resources are overwhelmingly located in the territorial waters of developing countries of the central and western Pacific and central and south America. Access to these resources will continue to be an important issue for any harvesting country which has few tuna resources.

Japan still leads as the major tuna harvesting country followed by the United States, Spain, Indonesia, the Philippines, France, Taiwan and Mexico (Table 4). When fully developed, the Mexican fleet could easily become one of the top four producers worldwide exporting to raw tuna markets. About 65 percent of all tuna caught worldwide is canned in the United States and its territories, Japan, Thailand, Italy and Ghana (Table 5). The market for frozen tuna is very competitive and the strength of the market depends on overall supply conditions for tuna as well as the final demand for canned tuna. The harvesting countries, including Mexico, will be competing to supply the processors. Future expansion in the Philippines is constrained by resource availability problems.

Table 4. Major tuna harvesting countries by percentage share of world catches, 1980—84

	Percent of global tuna catches (all oceans)				
	1980	1981	1982	1983	1984
Japan	40	36	37	36	38
United States	13	12	11	14	13
Spain	6	7	7	6	6
Indonesia	4	5	5	5	5
Philippines	4	5	6	6	5
France	4	4	4	4	5
Taiwan	6	5	6	5	5
Mexico	2	4	2	2	4 <sup>a</sup>
Other	21	22	22	22	19
Total	100	100	100	100	100

Sources: United Nations Food and Agriculture Organization (various years); King 1986:35.

<sup>a</sup> By 1986 this percentage had increased to 5 percent.

Although there is domestic demand for raw tuna in the Philippines and in Thailand there is little domestic demand for canned tuna in either Mexico, the Philippines or Thailand. These countries therefore will continue to be subject to fluctuations inherent in export markets for primary products. Processors in these countries will be competing to supply the world demand for canned tuna. Thailand has clearly become a



leader in this market in recent years displacing the Philippines particularly in the U.S. market. Trends are given in Table 6. The Philippines and Thailand however, must continue to seek out low cost sources of raw tuna in order to remain competitive.

Table 5. Major importing countries of fresh and frozen tuna by percent of global imports, 1980—84

1980	Percentage of global imports of fresh and frozen tuna				
	1981	1982	1983	1984	
United States	48	46	38	35	30
Japan	16	17	22	25	18
Italy	14	12	13	13	13
Thailand	—	—	—	5	16 <sup>a</sup>
Ghana	5	5	3	3	2
Other	17	20	24	19	21
Total	100	100	100	100	100

Sources: United Nations Food and Agriculture Organization (various years), Crough 1987:31.

<sup>a</sup> By 1986 this percentage had increased to 18 percent.

Table 6. Canned tuna: Percentage distribution of the quantity of U.S. imports by exporting country, 1980—85

	1980	1981	1982	1983	1984	1985
Thailand	10.1	14.6	21.3	32.6	55.3	57.3
Philippines	21.7	30.3	31.6	26.2	13.7	14.4
Japan	39.0	30.0	30.2	16.7	16.5	11.1
Taiwan	25.1	22.3	12.2	15.3	11.0	11.0
Ecuador	.0	.0	.0	.0	.5	2.4
Malaysia	(a)	1.0	.9	2.5	1.0	1.8
Indonesia	.0	.2	.7	2.2	1.4	.6
Venezuela	.0	.0	.0	.0	(a)	.4
Singapore	(a)	.1	.1	.3	(a)	.3
Other	4.1	1.6	3.0	4.3	.5	.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated based on official statistics of the U.S. Department of Commerce. USITC 1986:188.

<sup>a</sup> Less than 0.05 percent.

## CONCLUSIONS

The market for tuna is truly an international one, involving imports and exports of both processed and unprocessed tuna. In future it is reasonable to expect that more countries like Mexico, with little domestic demand but with large tuna resources, will enter this international market. For this reason, future production in Mexico, the Philippines and Thailand will affect any activity undertaken by countries in the Pacific island region. The impact will be especially felt on the supply side of the market if tuna supplies increase with new entrants.

The experiences of Mexico, the Philippines and Thailand highlight some issues that are important to consider in any attempt to develop industrial tuna operations. Each country was able to specialize at a particular level (harvesting or processing). Mexico has abundant resources and therefore chose to specialize in harvesting. The Mexican fleet is not constrained by resource availability in its own EEZ. Because the fleet has distant-water capabilities, it can operate in other areas of the Pacific. Resource availability is a problem for the Philippines and Thailand. Consequently, although their processors are competitive in wages and other inputs they depend on imports of frozen fish for their operations.

Each potential tuna industry development case should be examined individually with respect to domestic conditions. However, some general observations can be made: (1) self sufficiency in the production process depends on resource availability, fleet and processing efficiency, and marketing capabilities; (2) the fleet needs to be capitalized relative to the country's available resource, and the market which has been targeted for sales, either domestic or international. A domestic market would normally support a smaller fleet, and (3) domestic economic conditions have predictable effects on tuna industry productivity. In the Philippines and in Mexico, for example, the domestic financial crisis produced a severe currency shortage that affected the ability of vessel owners or processors to import parts and equipment for their operations.

#### NOTE

1. This synthesis draws on papers prepared by G. J. Crough (1987), Jesse M. Floyd (1986) and Linda Lucas Hudgins (1986) published by the project on Multinational Corporations in the Pacific Tuna Industry at Pacific Islands Development Program, East-West Center. Honolulu.

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## **PACIFIC ISLANDS DEVELOPMENT PROGRAM**

The purpose of the Pacific Islands Development Program (PIDP) is to help meet the special development needs of the Pacific Islands region through cooperative research, education, and training. PIDP also serves as the Secretariat for the 1980 Pacific Islands Conference, a heads of government meeting involving leaders from throughout the Pacific region, and for the Pacific Islands Conference Standing Committee, which was established to ensure follow-up on development problems discussed at the Conference.

PIDP's research, education, and training activities are developed as a direct response to requests from the Standing Committee. PIDP's projects are planned in close cooperation with the Committee to ensure that the focus and the organization of each project address the needs identified by the heads of government on the Committee, a process which is unique within the East-West Center and in other research and educational organizations serving the Pacific.

A major objective of the program has been to provide quality in-depth analytical studies on specific priority issues as identified by the Pacific Island leaders and people. The aim is to provide leaders with detailed information and alternative strategies on policy issues. Each Island country will make its own decision based on national goals and objectives. Since 1980, PIDP has been given the task of research in six project areas: energy, disaster preparedness, aquaculture, government and administrative systems, roles of multinational corporations, and business ventures development and management.