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SOUTHEAST ASIAN FISHERY DEVELOPMENT: CASES STUDIES OF THAI AND INDONESIAN GOVERNMENT DEVELOPMENT AND 200-MILE EXCLUSIVE ECONOMIC ZONE POLICIES

by

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An essay submitted in partial fulfillment
of the requirements for the degree of
Masters of Arts
(Asian Studies)
in the University of Michigan
July, 1987

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PURPOSE:

The purpose of this paper is to outline and contrast fisheries policy in the Southeast Asian nations of Indonesia and Thailand. This study will investigate the bureaucratic authoritarian regimes in each country and analyze fisheries policy in light of the development policies and goals promoted by these states. In each of these countries, regime maintenance and stability rather than the creation of democratic institutions appear to be primary state priorities.

To insure the longevity of the regime, the state elites have adopted policies which direct the nation toward the "capitalist enterprise state" model, characteristic of present-day Taiwan and the Republic of Korea. This paper, however, will concentrate on each nation's fisheries development and 200-mile Exclusive Economic Zone (EEZ) policies. By providing an analysis of contemporary fisheries scenarios and policy developments in each country, this paper will focus on an understanding of the differences in the ideologies and policy perspectives of Indonesia and Thailand.

Although various political, economic, and historical causes underlying the development of the authoritarian bureaucracies in

these countries will be addressed, the primary impetus of this paper is to compare contemporary differences in fisheries policy in respect to national goals and development plans. Both the Suharto New Order Government in Indonesia and Thailand's military bureacracy have joined political order theory with modern economic development theories. Technocrats and soldiers have prevailed over democratic forces in organizing a bonafide state "corporatism." As economic growth has superseded democratic political development, strong, authoritarian state models have delineated open political competition as obsolete.1

Whereas Thailand has firmly adopted policies of export-oriented growth so vital to joining the ranks of the newly-industrialized states (i.e., South Korea, Thailand, and Brazil), Indonesia's industrial sector remains predominantly cottage or import substitution-oriented in nature. However, the fisheries industry in both countries holds good promise as an export-producing sector. Both the fishing and fish processing sectors represent potential targets of structural adjustment and export-oriented industrialization necessary to develop Indonesia and Thailand into "capitalist enterprise states."

1Richard Higgot and Richard Robison, "Theories of Development and Underdevelopment," in Southeast Asia, ed. by Higgot and Robinson. (London, Boston: Routledge & Kegan Paul, 1985), p. 19.

I. INTRODUCTION:

Economic development in Indonesia and Thailand has varied considerably. Despite their close proximity to one another and a relatively similar natural resource base, differing colonial, historic, demographic, political, and economic experiences have led to divaricate development patterns. Similarly, fisheries development policies aspired to by the two countries contrast as well.

Since the introduction of the seagoing trawler to the fishing fleet in the mid-1960s, the Thai fishing industry has made great progress. From 1961 to 1974, the Thai trawler fleet expanded from 99 to 5,200 vessels. By 1986, the fleet numbered over 9,000 trawlers and purse seining crafts.2

To aid this process, the Thai Government's Department of Fisheries, the leading fishing industry promoting and development organization, designed a proto-type trawler vessel in the early 1960s. This boat could be constructed from indigenous products, and featured more advanced equipment such as an inboard diesel engine, a cold storage area, a winch, and a crane.

2U.S. Department of State, "Southern Thai Fisheries: A Two-Year Update," U.S. State Department Cable, American Consulate, Songkhla, Thailand to U.S. Secretary of State, Washington, D.C., December 2, 1986, p. 1.

Infrastructure improvement plans undertaken by the government included the construction of coastal roads, shipyards, and port facilities. The Thai Government also actively promoted and provided assistance to private firms purchasing and constructing refrigerated vehicles, fishmeal and other processing plants, canneries, and cold storage facilities.

A greater emphasis on marine and freshwater aquaculture by the Department of Fisheries also served to increase industry production.

The combination of these efforts and technical advancements with a rapidly expanding international demand for fisheries products allowed Thailand to become one of the top ten fishing and fishery products exporting nations in the world.

Notwithstanding the incredible fishery catch growth rates Thailand experienced in the 1960s and early 1970s, political and ecological circumstances in the late 1970s seriously altered the fishing industry's outlook. The adoption of new international Law of the Sea (LOS) agreements and its consequential provisions permitting maritime nations to declare Exclusive Economic Zones (EEZ) up to 200 nautical miles from their respective coastlines had negative repercussions for the Thai fishing industry. The countries neighboring Thailand proclaimed 200-mile EEZs, which included grounds traditionally utilized by more advanced Thai

fishermen. Thai fishermen caught operating in foreign EEZs were arrested and their boats confiscated. By 1977, when neighboring Burma, Kampuchea, Malaysia, and Vietnam had declared their 200-mile EEZs, Thailand, was estimated to have lost 110,000 square miles of traditional offshore fishing grounds.3

Additionally, the loss of offshore fishing grounds as a result of 200-mile proclamations intensified fishing pressure on Thai waters in the Andaman Sea and Gulf of Thailand which led to the depletion of fish stocks. The depletion of fishery resources was aggravated by continuing pollution of prime fishing areas by industries along the coast and the Chao Phraya River. Furthermore, the cutting of mangrove forests and dynamiting of reefs, which destroys natural marine breeding areas, were also responsible for the deterioration of fish stocks. Between 1961 and 1975, average hourly catches in the Gulf of Thailand declined from 298 kilograms (kg) to 47 kilograms.4

Indonesia's fishery sector, meanwhile, remains highly underdeveloped. However, despite the artisanal nature of the fishing industry, between 1960 and 1983, Indonesia's fishery production rose from 750,000 metric tons (t) to 2,120,000 tons.5 With its

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3Ibid.

4Ibid.

5T. Boely, "Overview of Maritime Fishing in Indonesia," in La Peche Maritime, (in French), November, 1985.

declaration of a 200-mile EEZ in 1980, Indonesia acquired control over the third largest expanse of EEZ and territorial waters in the world. Only the Soviet Union and the United States possess maritime management claims greater than Indonesia. Presently, Indonesia's total realm of maritime economic control amounts to 5.2 million square kilometers (km2).

Indonesia's initial fishery development efforts began during Repelita I (1968-72), the nation's first development plan. Most government efforts were in the form of pilot projects, and improvements in fishery-related infrastructure, fish and shrimp aquaculture projects, marketing, and processing techniques. During Repelitas I and II (1973-83), government prioritization shifted to encouraging private enterprise through extension services (i.e., technical advice), credit assistance, and the refurbishment of production and marketing facilities. The Indonesian Government perceived basic fishery development to be the first step toward converting fish and shrimp products exports into a valuable foreign exchange earning industry.

II. AN OVERVIEW OF THAI AND INDONESIAN FISHERIES:

A. THAILAND:

Thailand's coastline stretches 2,600 km along the Gulf of Thailand (1850 km) and the Andaman Sea (750 km) in the west. In 1985, 280,000 persons and 20,000 vessels were employed in the

fishing sector, making it the seventh largest fleet in the world.6 Estimated annual maximum sustainable yields (MSY) in Thai waters are 1.2 million tons. Of this total, 970,000 t are demersal species and 230,000 t are migratory pelagic species.7

Although the value of the fishery catch represented only 1.2 percent of total Gross Domestic Product (GDP) in 1985, per capita consumption of freshwater and marine products in Thailand is significant. Since 1977, annual per capita consumption of these products has fluctuated. From 17.4 kg in 1974, annual per capita consumption rose to 26.3 kg in 1977. By 1984, consumption had declined to 17.7 kg. However, dramatic disparities in fishery products consumption exist between the inland regions of the north and northeast where inhabitants consumed only 7.8 kg in 1984. This contrasts with a fish product consumption of 35 kg per capita in Bangkok.8 Variances in fish product consumption between regions are indicative of Thailand's poor food distribution system.

6"Thailand: Prospects and Policies," Special Report No. 161, Economist Intelligence Unit, 1984, p. 65.

7M. Fernandez, "Developing Fisheries in Thailand," Infofish Marketing Digest, No. 1, 1985, p. 11.

8United Nations Industrial Development Organization (UNIDO), "The Fisheries Industry in Selected Asian Countries," (Thailand chapter), prepared for UNIDO by Infofish (Kuala Lumpur, Malaysia). Global Meeting for the First Consultation on the Fisheries Industry, Mexico City, Mexico, January 26-29, 1987, p. 9.

1. Species:

Fish species in Thailand can be divided into four main groups: pelagics, demersals, crustaceans, and freshwater species. Among the pelagics found in Thai waters, Indo-Pacific mackerel, Indian mackerel, Spanish mackerel, scad, longtail tuna, sardines, and anchovies are the primary commercially sought after species. The major demersal species include snapper, grouper, threadfin bream, monocle bream, lizard fish, barracuda, trevally, and croaker.

Under the crustacean category, shrimp (Penaeus monodon, P. indicus, P. merguiensis) represents the most marketable species. Other crustaceans commercially caught or farmed include spiny lobster, squid, cuttlefish, molluscs, oysters, and crab (swimming crab, musk crab, and mud crab). Common freshwater species consist of carp, catfish, freshwater fish, and tilapia.

2. Resources, fishing grounds, and ports:

After achieving immense growth in fisheries catch during the late 1960s and early 1970s, the imposition of EEZs by neighboring countries and the depletion of stocks in Thai waters led to declining catch rates in the late 1970s. Thailand's fishery catch reached a peak of 2.2 million t in 1977 before falling to 1.8 million t by 1980.9

9Department of Fisheries, Thailand, in UNIDO, "The Fisheries Industry in Selected Asian Countries," 1987.

Table 1:
Thailand's Fishery Catch, by volume and year.

Year	Total catch (in millions of metric tons)	Year	Total catch (in millions of metric tons)
1970	1.448	1977	2.190
1971	1.587	1978	2.099
1972	1.680	1979	1.946
1973	1.679	1980	1.793
1974	1.510	1981	1.989
1975	1.555	1982	2.120
1976	1.699	1983	2.255
		1984	2.135

Source: Department of Fisheries, Thailand.

As the result of improvements in fishing techniques and gear and expanded licensed, joint venture fishing in the EEZs of other nations, catch totals had increased to 2.25 million t by 1983. An expansion in freshwater fish and shrimp farming also added to this increase.10

Three separate types of fishing grounds exist in Thailand. The Thai Government uses the distinction between coastal, offshore, and deepsea fishing zones in determining regulatory measures. Coastal areas, which support most artisanal fishermen, are off limits to large trawlers and purse seining vessels. Freshwater capture fisheries and rapidly expanding fish and shrimp farming operations are also included in the coastal sector.

Most of the continental shelf areas of the Gulf of Thailand and

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10According to Thailand's Department of Fisheries statistics, aquaculture production increased from 100,000 t in 1980 to 136,500 t in 1983. However, these statistics also indicate that production has actually declined from a high of 195,000 t in 1977.

Andaman Sea are included under the offshore fisheries category. Otter trawlers and 10-100 gross ton (GRT) trawlers are the most prevalent vessel-types fishing in these waters. In the deepsea fishing zones (usually the outer edges of the Thai EEZ, in other nation's EEZs, or international waters), large trawlers equipped with sonar, radio, fish scanners, and refrigerated holds are the most common vessel-type.

Of Thailand's 19 major fishing ports, ten lie along the southern Thai coast on either the Gulf of Thailand or the Andaman Sea. Chumphon, the northern-most port on Thailand's East Coast and the southern port nearest to Bangkok, has reported a doubling in fish landings since 1980. With several canneries, fishmeal plants, fishmills, and cold storage operations, Chumphon represents one of the most advanced ports on the coast.

Farther south along the Gulf of Thailand, traditional ports such as Surat Thani and Pak Phanang have faced declining fish landings due to channel silting and mafia-style control of fish marketing operations. As a result, Khanom, the premier port in Nakhon Si Thammarat Province, has recorded a five-fold increase in fish landings. Khanom, a deep-dredged port supplied with nearby hydroelectric power, is relatively free of mafia-style market interference.11

11U.S. Department of State, "Southern Thai Fisheries: A Two-Year Update," U.S. State Department cable, p. 2.

Mafia-style corruption and inadequate pier facilities at Songkhla have forced the migration of Thailand's purse seining fleet to nearby Pattani. Approximately 200 sonar-equipped purse seining vessels and 250 deepsea trawlers are operating out of Pattani. Pattani's additional advantage is its proximity to the lucrative Malaysian fishery products markets.12

Burmese efforts to curb incursions by Thai fishermen into its EEZ in the Andaman Sea have entailed drastically reduced landings at Thailand's traditional West Coast fishing port at Ranong. Much of Thailand's West Coast fleet has fled south to Phuket, Kantang, and Satun. Although these ports are not equipped with comparable infrastructures, they are nearer to Malaysia's fish markets and cheaper fuel prices. At Satun, the port nearest to the Malaysian border, vessels jointly-owned by Thais and Malaysians operate with Thai crews in more abundant Malaysian waters, while taking advantage of cheaper fuel costs and higher fish prices on the Malaysian market.13

3. Processing, markets, and trade:

Almost half of Thailand's total fish catch is trash fish (or by-catch). In 1984, 43.7 percent of the fisheries catch was

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12Ibid., p. 3.

13Ibid., pp. 3-5.

trash fish, 94.6 percent of which was converted into fishmeal.14 Most of Thailand's catch is processed into fishmeal (42.8 percent) or consumed fresh (22.4 percent). The fisheries catch is also converted into frozen (10.2 percent), canned (9.2 percent), and dried/salted (4.9 percent) products.15

Post-harvest quality control standards in Thailand are generally unsatisfactory. Although on-board and onshore fish handling has improved, large percentages of the Thai catch continues to be spoiled. Smaller scale fishing operations rely on crushed block ice (when available) and salt as an on-board preservative. Once fish are landed at dock facilities, they are washed with dirty harbor water and packed in baskets. More commercially valuable species such as chub mackerel and Indian mackerel may be iced separately from less marketable fish. At the dock, these fish may be packed in insulated boxes or baskets and trucked to the central markets of Thailand and Malaysia. Like marine fishermen, freshwater fishermen usually sell their catch to local traders who direct it to wholesale and retail outlets.

Almost all distribution and marketing of fishery products is carried out by private fish traders. The Thai Government's Fish Marketing Organization (FMO) categorizes fish traders as either

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14UNIDO, "The Fisheries Industry in Selected Asian Countries," 1987, p. 12.

15Ibid., p. 7.

registered or non-registered. Relatively few traders are registered with the FMO.

Fish processing and utilization in Thailand generally occurs in coastal towns and villages. Sundrying, salting, smoking, pickling, and fermentation are the most common processing methods. Approximately 11 percent of marine landings and 22 percent of freshwater landings are utilized in these ways. The total annual export value for these products is estimated at U.S. $30 million.16 Other more advanced forms of processing include freezing, canning, fishmeal milling, and fish sauce (nam pla) processing.

Table 2:
Number of Selected Fishery Industry Facilities in Thailand, 1984.

Type of Plant	Total Number	Type of Plant	Total Number
Ice plants	155	Cold storage	78
Canned fish	38	Fish sauce	113
Fishmeal	95	Shrimp paste	2860
Dried shrimp	284	Dried squid	865
Dried mussel	776	Steamed fish	138
Smoked fish	184	Nam pla (sauce)	37
Salted fish	800	Fish ball	64
Fish,shrimp crackers	78		

Source: UNIDO, "The Fisheries Industry in Selected Asian Countries," (Thailand chapter). Report prepared by Infofish, 1987, p. 14.

Highly dependent on imported technology and machinery and international market demand, Thailand's fish processing industries, namely freezing and canning, confront constant threats to

16Ibid., p. 16.

their survival. Perhaps the most distressing problem for these industries is an insufficient supply of high quality raw material. Poor quality standards in the fishmeal processing industry such as low protein and high sand content prohibits the exportation of these products to prosperous markets in Japan and the European Economic Community (EEC).17

Unsatisfactory quality control and fish inspection continues to present complications for the fishing industry. Incomplete and complex legislation governing quality control standards and the lack of sufficient post-harvest inspection procedures have dogged efforts to improve the quality of end-products. Although progress has been made, Thailand still confronts export detentions on fishery products in many importing countries.

The Department of Fisheries' Fisheries Technology Development Division (FTDD), the only government agency working towards improving the quality and inspection of fishery products, has no specific legal powers. Any inspections that take place occur at freezing and cannery facilities after products have reached the final processing stage. Unfortunately, the majority of quality control problems transpire during the early on-board and onshore fish preservation and processing stages.

Thailand's fishery products exports have grown continuously since

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17Ibid., pp. 14-15.

the early 1970s. Exports of fishery products increased from 88,221 t in 1974 to 466,219 t in 1985, elevating Thailand to a position among the top ten fishery products exporting countries.18 Frozen shrimp, frozen fish, canned seafood, dried and frozen squid, and fishmeal are Thailand's primary fishery exports. The majority of these products are exported to Japan, the U.S., the EEC (mainly France and Italy), Malaysia, and Singapore.

Exports of frozen shrimp increased from 17,915 t (approximately $76 million) in 1980 to 29,000 t (approx. $161.5 million) by 1986.19 Much of this growth can be attributed to greater purchases from Japan as the value of the yen increased and declining shrimp catch in Pakistan, India, and Taiwan.

Table 3:
Thailand's Fishery Products Exports, by year and volume.

Year	Volume (in thousands of metric tons)	Year	Volume (in thous. of metric tons)
1970	45.0	1978	235.4
1971	55.1	1979	277.9
1972	82.4	1980	262.6
1973	104.1	1981	300.0
1974	88.2	1982	295.9
1975	98.0	1983	344.7
1976	133.5	1984	407.0
1977	180.3	1985	466.2

Source: UNIDO, "The Fisheries Industry in Selected Asian Countries," (Thailand chapter), report prepared by Infofish, 1987, p. 10 and Department of Fisheries, Thailand.

18Ibid., p. 10.

19U.S. Department of State, "Southern Thai Fisheries: A Two-Year Update," U.S. State Department cable, p. 4.

Thai exports of frozen squid, cuttlefish, and octopus have been frequently hindered by poor quality standards. Recently, however, top importers of these products such as Japan and Italy have restored confidence in Thailand's quality control efforts, resulting in fewer detentions and order cancellations. Growing competition from high quality, low cost Peruvian and Chilean fishmeal as well as from the soybean meal industry has created an uncertain market situation for Thailand's fishmeal producers. Between 1985 and 1986, Thai fishmeal exports declined 30-35 percent.20

Perhaps one of Thailand's greatest hopes for the future is its burgeoning fish and seafood canning industry. In 1974, Thailand's first year of commercial fish and seafood cannery production, 474 t were produced. By 1986, canned seafood production had reached 190,000 t and generated approximately $390 million, while canned fish production amounted to 162,000 t and roughly $315 million in revenues.21 Most of these products are exported to the U.S., West Germany, Great Britain, Canada, and Australia.

4. Administration:

The Department of Fisheries within the Ministry of Agriculture and Cooperatives is the primary policy making, promoting, and implementing body for Thai fisheries management and development.

20Ibid., p. 5.

21Ibid.

Within the Department of Fisheries, the Fish Marketing Organization (FMO) is responsible for promoting the welfare of fishermen, fishing villages, and fishing organizations. These duties include managing 12 FMO marketing stations throughout the nation's main fishing ports. Daily auctions operated by registered FMO agents are held at each of these stations. It is estimated that one-third of the total Thai fisheries catch passes through the FMO-run stations.22

Other government organizations including the Department of Foreign Trade in the Ministry of Commerce and the Board of Trade (BoT) also have duties which correspond to the fishing industry. Both the Foreign Trade Department and the BoT are depended on to locate overseas markets for Thai fishery products exports. Although the Department of Fisheries is charged with implementing fishery industry credit and aid schemes, the Board of Investment (BoI), attached to the prime minister's office, is the sole purveyor of government funds to such projects.

Working in conjunction with the FMO is the Cold Storage Organization (CSO). The CSO purchases, stores (freezes), and transports fish and other products for distribution in deprived areas of North and Northeast Thailand.

22UNIDO, "The Fisheries Industry in Selected Asian Countries," (Thailand chapter), report prepared by Infofish, 1987, p. 13.

A plethora of government institutions are involved in food and quality control efforts. However, because quality control represents such a serious problem in Thailand only the FTDD is directly involved in fish and seafood quality control. As mentioned above, no specific legal ordinance exists permitting the FTDD to exercise greater control over quality control problems.

Other government organizations indirectly responsible for the quality control of fishery products are the Agriculture Regulator Division of the Department of Agriculture, the Public Health Ministry's Food and Drug Administration, the Industry Ministry's Thai Industrial Standards Institute, and the Commerce Ministry's Office of Commodities.

B. INDONESIA:

With the third largest marine economic management zone in the world, Indonesia controls 5.8 million km2 of territorial and EEZ waters. Of this total, 3.1 million km2 are territorial seas (projecting 12 nautical miles from the coastline) and 2.7 million km2 are EEZ waters. More importantly, 775,000 km2 of Indonesian-controlled waters span highly-productive continental shelf areas of less than 200 meters in depth.

Indonesia's total standing stocks are estimated at 7.2 million tons. However, since scant research is available on the Indone-

sian EEZ, estimates on maximum sustainable yields (MSY) in these waters tend to vary. For example, one report places the MSY at 4.7 million t per year23, while another analyst proposes that 3.7 million t is more accurate.24 The estimated MSY for the commercially valuable pelagic species (i.e., tuna) is 1.7 million tons. Inland freshwater and brackishwater species have an MSY of 1.6 million tons.25

Overall fishery resource exploitation in Indonesia is considered to be very low. However, although the 1981 exploitation rate was only 43.5 percent, heavily-fished areas in the Malacca Straits, the Java Sea, and the Bali Straits are rapidly being depleted of fish stocks, while offshore areas of the EEZ and eastern regions of the archipelago are underutilized.26

Unlike Thailand's fishery sector, the Indonesian fishery sector is predominantly artisanal with 98 percent of total production and 99.8 percent of employment being attributed to small scale fishing operations. Of an employment force of three million persons (1984), 50 percent are involved in marine fishing, 15

23Virginia Kwong, "The Indonesian Fisheries Sector," Infofish Marketing Digest, June, 1984, p. 10.

24Elizabeth D. Samson, "National Marine Interests in Fisheries in Southeast Asia," (Quezon City, Philippines: Fishery Industry Development Council, July 25, 1983), p. 7.

25Kwong, p. 10.

26Samson, p. 7.

percent operate in inland waters capture fisheries, and 40 percent are aquaculturists. Approximately 75 percent of the fish and shrimp farmers raise freshwater species with the remainder participating in brackishwater and marine aquaculture.27

Almost all fisheries products, with the exception of frozen shrimp, frozen and canned tuna, and several other products, are consumed locally. Seventy percent of national demand for fishery products comes from heavily-populated Java and Bali. However, only 30 percent of total national production is taken from the overexploited waters around Indonesia's two most inhabited islands.28

Fish consumption in Indonesia amounted to an annual per capita rate of 13.5 kilograms in 1984. In that year, consumption rates were 6.3 kg on Java, and 27.9 kg and 41.4 kg, respectively, on sparsely-populated Irian Jaya and Kalimantan. The national goal for fish consumption for 1984 had been placed at 22.4 kg per capita.29

From a socio-economic perspective, the status of Indonesian fishermen remains low. Many small scale fishermen are permanent-

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27UNIDO, "The Fisheries Industry in Selected Asian Countries," (Indonesia chapter), report prepared by Infofish, 1987, pp. 1-2,9.

28Ibid., pp. 12-13.

29Directorate General of Fisheries, Indonesia.

ly in-debt and are compelled to rely on middlemen and creditors both in-season and during the off season. Unable to influence prices, artisanal fishermen are often at the mercy of middlemen who completely control fish market prices in most areas. Furthermore, poor storage, transportation, and market facilities prohibit small scale fishermen from transporting their products to more lucrative central and urban markets.

1. Species:

Within the Indonesian fishery zone, species can be classified as marine, inland, and culture. The primary commercial species in the marine category are the pelagics consisting of Indian mackerel, scads, fringescale sardinella, eastern little tuna, anchovies, skipjack, and other tunas (albacore, bigeye, and yellowfin). Leading marine crustaceans are spiny lobsters and shrimp (P. merguiensis, P. indicus, and Metapenaeus).

Major inland freshwater capture species include snakeheads, snakeskin gourami, Java barb, and giant freshwater shrimp (Machrobrachium rosenbergii). The most common freshwater aquaculture species are common carp, Nilem carp, and Java barb, while brackishwater farmers usually cultivate milkfish, Mozambique tilapia, and shrimp (Metapenaeus and P. merguiensis).

2. Resources, fishing grounds, and ports:

Indonesia's total fisheries catch in 1984 was 2,252,989 t, of

which 1,712,804 came from marine waters. Inland capture fisheries accounted for 269,321 t while 142,404 t was farmed in brackishwater ponds.30 Indonesia's total fishery catch has tripled since 1960 when total landings amounted to only 750,000 tons.31

Table 4:
Indonesia's Fishery Catch, by year and volume.

Year	Catch total (in mill. of metric tons)	Year	Catch total (in mill. of metric tons)
1970	1.289	1978	1.648
1971	1.245	1979	1.748
1972	1.269	1980	1.850
1973	1.278	1981	1.915
1974	1.336	1982	1.998
1975	1.390	1983	2.214
1976	1.483	1984	2.253
1977	1.572	1985	2.375

Source: Directorate General of Fisheries, Indonesia.

Overall, Indonesia's fishery resources are relatively shallow in respect to the quantity of certain commercial species. Of the roughly 200 commercial species caught in Indonesian waters, only 65 are captured with enough regularity to include them in catch statistics. Furthermore, territorial seas around Java, Bali, and Madura continue to overfished by numerous small scale fishermen. Meanwhile, offshore areas of the 200-mile EEZ remain underexploited.

30UNIDO, "The Fisheries Industry in Selected Asian Countries," (Indonesia chapter), prepared by Infofish, 1987, p. 2.

31Boely, p. 1.

To help preserve its fishery resources, the Indonesian Government banned trawlers of 10 GRT or more from fishing off the coast of Java beginning in October, 1980, and off Sumatra from January, 1981. Finally, all trawler vessels of 10 GRTs or more were excluded from Indonesian waters in July, 1981.32

As concentration on the fisheries sector has intensified and more foreign fishermen have initiated fishing operations in Indonesian waters, the exploitation rates of tuna and shrimp, Indonesia's two main commercial fishery products, have increased. The exploitation rates of tuna and shrimp in 1982 were 68.99 percent and 22.85 percent, respectively.33

With few large port and shipyard facilities, Indonesia is impeded in its efforts to construct a national trawler and purse seining fleet. Moreover, without adequate fish landing and processing facilities, Indonesia is unable to exploit joint venture agreements signed with foreign fishermen. For example, without such facilities, commercially valuable tuna and shrimp caught in Indonesia's waters must be shipped directly to countries with canning and preserving capabilities rather than being converted into high value-added exports from Indonesia.

32Presently, through joint venture agreements signed with foreign investors, approximately 1000 foreign trawlers are operating in Indonesia's offshore waters with the exception of those near Java and Sumatra.

33Ibid., p. 3.

Projects to construct and meliorate port facilities is already being undertaken by the Indonesian Government with financial support from the Asian Development Bank (ADB) and the Islamic Development Bank.

Inland freshwater capture areas in Indonesia extend over 13.7 million hectares (ha). Presently, 265,000 ha of aquaculture grounds are believed to exist. While freshwater, and paddy field34 farming has been gradually increasing, brackishwater aquaculture is primarily responsible for the 49 percent growth rate in aquaculture production since 1982.35

3. Processing, markets, and trade:

The highly-artisanal character of the Indonesian fishery sector has kept it from reaching its potential as a productive, export-oriented industry. A prime example of this is its technologically-backward fishing fleet. Of the 274,000 vessels in the Indonesian fleet, only 18 percent are motor-powered. Most

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34Paddy field fish and shrimp farming represents a very extensive form of aquaculture which has been practiced for hundreds of years. This technique usually involves the flooding of rice fields with rain water or coastal brackishwaters. Fish fingerlings and shrimp larvae are either washed into the paddies or captured elsewhere and then deposited into the paddies. The shrimp and fish is allowed to mature to market size and then it is harvested by net or by draining the paddy.

35UNIDO, "The Fisheries Industry in Selected Asian Countries," (Indonesia chapter), report prepared by Infofish, 1987, p. 4.

of these vessels are powered by simple outboard motors.36 Offshore fishing capabilities of the fleet are extremely limited.

Post-harvest preservation and processing techniques are inadequate. High value fish such as pomfret, red snapper, and shrimp are the only species which warrant on-board icing. Usually fish and shrimp remains un-iced even after being landed at dock facilities. It is estimated that 20 percent of all shrimp delivered to processing plants is too deteriorated to utilize and 20-30 percent of the fish caught in rural areas is spoiled.37 With an increased demand for higher quality fish products in large cities, old vans and trucks are gradually being replaced with modern refrigerated vehicles.

Almost all landings of pelagic, demersal, and crustacean products are consumed domestically. Fifty percent of the fish catch in 1985 was processed into dried, boiled, smoked, and fermented products.38 Despite these efforts to preserve fishery products, poor processing methods still result in much of the catch eventually being spoiled. Lack of good quality salt, excessive moisture, and the use of insecticides are chief causes of the poor quality of end-products.

36Ibid., p. 17.

37Ibid.

38Ibid., p. 18.

Every five-year plan since Repelita I in 1968 has propounded an upgrading of transportation and storage facilities. Despite these efforts, Indonesia is desparately in need of refrigerated vehicles, cold storage centers, and ice plants. In addition, a poor retail and wholesale fish marketing network creates even greater problems for the fisheries industry.

More than 50 percent of fish and shrimp caught in Indonesia is sold directly to local consumers. However, approximately 80 percent of the fish trade (excluding shrimp and other crustaceans) is sold by fishermen to landing agents (wholesalers), who, in turn, sell it to retailers and processors. Only five percent of the annual catch is sold by fishermen directly to retailers. On the other hand, shrimp is often sold by fishermen to a landing center operated by a government fishermen's cooperative. The cooperative then distributes the catch to retailers and exporters.39

At present, Indonesia's fish distribution is almost entirely a private sector operation. In contrast to more developed sectors, little government intervention currently pervades the fish marketing system in Indonesia. Fishery products distribution also varies from region to region. For example, large fish

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39Sri Turniati, "Indonesia: Symposium on the Fishing Industry," Staff of Sub-Directorate of Identification and Program Development, Directorate General of Fisheries, Department of Agriculture, Jakarta; prepared for Tokyo fisheries meeting, November 12-18, 1985, p. 4-5.

auctions and a complex fresh fish marketing chain exist on Java, while simple village markets are the primary exchange points between fishermen and consumers in less developed outer island regions.

Several significant market problems exist within the Indonesian fisheries industry. First of all, Indonesian fishermen appear to lack a market orientation. As a result, fishermen do not fish for the types of fish that are in greatest demand at central markets. While this may seem to be only an information problem, it also involves a dearth of sufficient transportation vehicles and storage facilities. Furthermore, Indonesia's few marketing organizations such as cooperatives remain underdeveloped. Finally, the domestic population, with the exception of coastal communities, does not consume large quantities of fishery products. The high cost of these products and scarcity of fresh fish in interior regions makes consumers reluctant to switch to fish despite its high protein content. Therefore, the absence of a strong domestic market for fish products also retards the fishery industry's development.

In spite of government construction and improvement efforts, Indonesia is still without needed storage and processing plants. In 1980, 38 freezer plants with a capacity of 284 t per day and 365 ice plants with a capacity of 7,019 t per day were operating in Indonesia. In addition, there were 69 cold storage facilities

which could hold 145,000 t daily. Almost all of the cold storage facilities are privately-owned operations used exclusively for preserving high value shrimp and tuna.40

In concurrence with the demand for canned tuna and seafood, Indonesia's canning industry is expanding. Eighteen canneries with an annual fish processing rate of 9,844 t were operating in Indonesia by 1982. To further stimulate growth, a tin-plating industry has been developed so that cans may be domestically produced instead of imported from abroad.41

Although quality standards for fishery products are almost non-existent in Indonesia's domestic marketplaces, a joint regulation of quality improvement was issued by the Directorate General of Fisheries and the Directorate General for Drug and Food Control of the Ministry of Health. A special "export quality certificate" is required by the Directorate General of Fisheries for all fisheries exports. Twenty-four fish products quality testing and development laboratories are responsible for all fishery export inspections. Guiding and coordinating the inspection process is the National Center for Fish Quality Control and Fish Processing Development in Jakarta. Provincial fishery service laboratories also serve as sample agencies in

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40UNIDO, "The Fisheries Industry in Selected Asian Countries," (Indonesia chapter), report prepared by Infofish, 1987, pp. 22-23.

41Ibid., p. 23.

enhancing the quality of fishery products.

Despite these improvements in export quality inspection, Indonesian fishery products remain blocklisted by the U.S. Food and Drug Administration (USFDA). Within Indonesia, the 24 fishery exports inspection labs are continuously over-burdened and many poor quality products elude inspection officials and are shipped on to overseas markets.

Shrimp, tuna, and skipjack are the primary fishery products exported by Indonesia. The total volume of fish exported has increased from 76,000 t (valued at $248 million) in 1984 to 96,300 (valued at $350.3 million) in 1986.42 Of the 1984 exports, 75 percent was sold on Japanese markets. Large sashimi markets in Japan encourage the export of freshly-caught yellowfin and bigeye tuna. Other major importers of Indonesian fishery products are the U.S., Singapore, and the EEC.

Table 5:
Indonesia's Fishery Products Exports, by year and volume.

Year	Total exports (in thous. of metric tons)
1978	63.5
1979	68.2
1980	78.7
1981	75.2
1982	89.6
1983	NA
1984	75.7
1985	84.5

Source: Directorate General of Fisheries, Indonesia.

42Ibid., p. 13.

To demonstrate the underdeveloped state of the Indonesian fisheries industry, 82.6 percent (by volume) of Indonesia's total fishery products imports is crude fishmeal to be used as animal stock feed.43 While foreign exchange generated by high value fishery exports such as shrimp and tuna assists in mitigating the current account maelstrom, a greater share of foreign capital reserves might be conserved if the Indonesian Government concentrated its efforts on developing an elementary fishmeal milling industry.

4. Administration:

The Directorate General of Fisheries in the Department of Agriculture is charged with implementing national fishery development projects and issuing licenses for commercial fishing ventures. This includes controlling the issuance of licenses to fishing operations involving foreign capital, crews, and vessels.

Assisting the Directorate General of Fisheries are the individual Provincial Fisheries Services (PFS). Although the PFS are administered by each provincial government, they act as policy implementing bodies for the Directorate General of Fisheries. The PFS has separate regencies (kabupaton) which are staffed by technically-trained extension agents.

43Turniati, p. 4.

Both the Agency of Agricultural Education, Training, and Extension which is responsible for fisheries training and education and the Agency of Agricultural Research and Development which handles fisheries research and development are autonomous organizations within the Department of Agriculture. These units are on the same administrative level as the Directorate General of Agricultural Education, Training, and Extension. The Agency of Agricultural Education, Training, and Extension operates agricultural schools, training programs, and supports the extension efforts of other directorate generals and the PFS.

Under the Directorate General of Fisheries, separate development centers for marine fishing, brackishwater culture, freshwater culture, and post-harvest technology and quality control are organized. The Directorate General of Fisheries also runs five Marine Fisheries Training Centers, 21 coastal fishing ports, two interinsular fishing ports, and one deepsea port.

Six state fisheries enterprises were organized to act as developing agents for local fishermen. Although these state companies receive technical assistance from the Directorate General of Fisheries, they are directly accountable to the Minister of Agriculture.

The Indonesian Government is exhorting fishermen to form cooperatives in collusion with an already existing village cooperative

plan. The Directorate General of Fisheries again is the chief provider of technical assistance, but jurisdiction over the newly-developed fishing cooperatives is retained by the Directorate General of Cooperatives, a branch within the Department of Trade and Commerce.

Fishing cooperatives have been organized at three levels: village (KUD), provincial (PUSKUD), and national (National Association of Fishery Cooperatives). Reportedly, 500 KUDs at varying stages of development exist throughout the Indonesian archipelago. To distinguish between these stages, the Indonesian Government categorizes the cooperatives as officialized (government-controlled), de-officialized (cooperative-managed, with government support), and self-reliant (fully independent from government support). The chief role of the cooperative is to ameliorate fishery production by providing necessary inputs, credit, services, and sometimes marketing advice to local fishermen and aquaculturists. The success of the fishing cooperatives in Indonesia differs from place to place.

III. FISHERIES DEVELOPMENT POLICIES: PLANS AND PROGRAMS

Thailand and Indonesia both promote fisheries development as part of their national development policies. Despite their differing levels of fishery development, Thailand and Indonesia are developing their fishery resources according to broad economic

development plans. Multilateral technical and financial assistance from organizations such as the ADB, the United Nations Development Program (UNDP), and Islamic Development Bank and bilateral aid from the industrialized nations has been vital to these development programs.

With the declaration of 200-mile EEZs in the late 1970s and early 1980s, the Indonesian and Thai Governments were faced with new management and development considerations. Whereas the Indonesian Government must decide on policies to manage and exploit its new EEZ waters, the Thai Government has been forced to develop alternatives for fishermen excluded from traditional fishing grounds.

Both the fisheries development and 200-mile EEZ policies are in accordance with national economic development policies followed by the respective governments. Although the Thai and Indonesian state elites are committed to creating modern capitalist states, regime maintenance, another major priority, necessitates that these governments also encourage and abet the development of traditional artisanal and tertiary sectors of society. Failure to adequately develop these sectors could result in greater social and economic unrest and a vulnerability to undesirable political elements (i.e., the infusion of communist ideologies).

A. THAILAND:

1. National Economic and Social Plans (NESP):

Thailand's Fifth National Economic and Social Plan (1982-87) is currently in its final year. Already having been drafted, the Sixth NESP (1987-91) contains many of the same tenets as its predecessor. The fisheries component of the Fifth NESP included five basic points.

1) To increase overall production and utilize fishery resources in meeting the consumption needs of local communities and increasing exports.

2) To optimize the effectiveness of manpower and capital resources in striving toward economic efficiency.

3) To promote regional equality and alleviate poverty by creating employment opportunities for fishermen and fish farmers.

4) To increase fish consumption, especially among the poverty-stricken population in inland regions.

5) To preserve and manage fishery resources so as to ensure sustainable yields.

Special emphasis was placed on promoting commercial aquaculture and the development of inland freshwater fisheries. Traditionally, almost one-third of the total fishery catch in Thailand has come from freshwater sources. Increased foreign investment in aquaculture products is also welcomed by the government.44

In Thailand's Sixth NESP slated for 1987-91, several modifications have been introduced into Thai Government fisheries

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44G.J. Crough, "The Development of the Tuna Industry in Thailand," Honolulu, Hawaii: Pacific Islands Development Program, East-West Center, April, 1987, p. 7.

policy. Confronting declining growth in overall fisheries production, the Thai Government has decided that stabilization of the industry is a more realistic priority. In the Sixth NESP, fisheries program aspirations are considerably less grandiose. The four main points of the fisheries component are listed below.

1) To maintain current levels of fishery production.

2) To maintain present levels of fishery exports.

3) To provide adequate animal protein (i.e., fishery products) as part of a poverty eradication plan.

4) To maintain domestic consumption of fishery products.

2. Government plans for joint ventures with other nations:

As the Thai trawler and purse seining fleet was forced out of traditional fishing grounds with the imposition of 200-mile EEZs, the Thai Government began approaching neighboring nations concerning the arrangement of joint venture agreements. These agreements were intended to permit Thai fishermen access to these countries' EEZs. In recent years, the Thai Government has negotiated joint venture agreements with countries such as Oman, Saudi Arabia, Australia, Indonesia, and India.

When arranging its initial joint venture with India, the Thai Government formulated an eight-point profit-sharing plan.(see Appendix A). Although joint ventures with other countries must be negotiated on an individual basis, the policy framework utilized in the India case is often returned to in the initial proposal stage.

3. Government investment policies:

As part of a program further advance Thai industry and business, the Thai Government actively encourages foreign capital investment and technology transfer. The fisheries industry, a business field which requires a high degree of capital input and new technology, is included in this program.

Under the Alien Business Decree (November, 1972), the fisheries sector is considered among 37 category B businesses.45 According to this designation, businesses are not permitted to be foreign majority-owned unless they are being specifically promoted by the BOI. A grandfather clause applies to foreign majority-owned companies that began operation prior to November 26, 1972, if they have obtained certification from the Thai Business Register.

A large share of foreign direct investment is facilitated through joint venture agreements. Very few fully-owned subsidiaries or branches of multinational corporations (MNC) exist in Thailand. Although the Thai Government prefers equity joint ventures, many non-equity companies or contractual arrangements with the MNCs are currently in operation.

The BOI's role is to encourage and promote investment in the

45Category A businesses (i.e., rice and salt farming, construction, and advertising) may be owned by Thai nationals or Thai majority-held juristic companies only.

domestic economy. Primary emphasis has been placed on export-oriented production, resource development, employment generation, decentralization, energy conservation, and the development of basic industries. Based on these BoI objectives the fisheries sector represents a prime target industry.

Many of the incentives utilized by the BoI are embodied in the Investment Promotion Act (1977). This act consists of guarantees, protective measures, permissions, and tax incentives to encourage new business developments. The BoI is empowered by the Investment Promotion Act to make decisions regarding contractual conditions, foreign capital sources, nationality, and the number of share holders involved in joint venture agreements. Despite retaining strict legal control over the types of joint venture operations organized, the BoI has exercised few restrictions on conditions of technology transfer and remittance of royalty fees. The main tenets of the Investment Promotion Act are listed in Appendix B.

The Investment Promotion Act has not been without problems and uncertainties. Other Thai Government agencies claim that BoI tax incentives sap the government of needed revenues and do not aid in productive development. In addition, the imposition of surcharges on competitive imported products raises the production costs of other companies which use these products as components in their own manufacturing processes. Finally, some critics

question whether or not these incentives really affect MNC decision making. For example, market size, availability of raw materials, and economic and political stability may be of more consequence to MNC managers than the presence of tax incentives.46

Of the 1,280 Thai companies assisted by the BoI, seven are fisheries companies. Thai Seri Universal Food Co., Ltd., the largest seafood processing and cold storage company in Thailand, is the most prominent beneficiary of BoI fishery promotional efforts. Among active fishing projects, deepsea, especially tuna, operations have received the majority of BoI-financed support. To qualify for BoI programs, deepsea vessels must be at least 150 GRT and fitted with sophisticated radar, sonar, and other equipment. Offshore vessels participating in the program must weigh at least 50 gross tons.

As mentioned previously, increasing the tuna catch is a primary Thai Government objective. The government hopes to increase the domestic catch to one-third of cannery raw material needs. To attain these goals, an upgrading of vessels, skills, and fishing technology of the Thai domestic fleet is mandatory. The government is encouraging local fishermen to merge and combine skills and capital resources. Canneries have been encouraged to finance vessel and gear refurbishments as well as the acquisition of new

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46Crough, p. 9.

boats. Presently, 20 large local trawlers have contractual agreements with domestic canneries and 50-80 more trawlers supply canneries on an ad hoc basis. Canneries must also assist local fishermen in enhancing the quality of the post-harvest catch.

By developing a large purse seining fleet, the Thai Government plans to better exploit the EEZs of countries with which it has concluded joint venture agreements. The Thai Government is also attempting to arrange joint venture agreements with companies in developed nations that are beset with excess tuna vessel capacity. This would permit Thai fishermen to work aboard more modern purse seining vessels, and thus improve their fishing skills. Furthermore, the Thai Government is investigating the island nations of the western Pacific as possible sources of inexpensive tuna products to supply Thai canneries.

4. International aid programs:

Since 1978, Thailand's fishery sector has received $108 million in total bilateral and multilateral aid. Of this total, $45 million has been provided by multilateral organizations such as the ADB, the World Bank (IBRD), the UNDP, and the United Nations Food and Agriculture Organization (UNFAO). The ADB leads the multilateral group by granting $24 million to Thai fisheries sector projects over this period. Bilateral assistance has amounted to $63 million, consisting of 20 grants ($29 million) and two loans ($34 million). Major bilateral sources of assis-

tance include the U.S. (AID), Canada, Japan, the Netherlands, Denmark, and Australia.47

The World Bank is currently supporting four fisheries projects in Thailand. Among these projects is the Chao Phraya (first) Improvement Program. The World Bank has provided $0.2 million to fund fish fry production for stocking canals and ponds involved in a river irrigation project. The Regional Cities Development Program includes the purchase and development of a 23-ha site at the Songkhla fish port. The Songkhla municipality will receive 18.4-ha to be developed as a private industry/commercial zone, while the remaining 4.6-ha will be granted to the FMO to build and operate a port facility.

A third project receiving World Bank financing is the National Rural Development Program. The fisheries component of the project, which began in 1983, is designed to educate and encourage the impoverished in coastal areas of southern Thailand to farm cockles and sea bass. The World Bank-funded fisheries component of the Agriculture Credit I plan has failed miserably. As part of a Northeast Provincial Settlement Project, Agriculture Credit I was supposed to provide loans to settlers interested in initiating freshwater aquaculture projects. However, a low participation rate and lack of confidence by those involved

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47UNIDO, "The Fisheries Industry in Selected Asian Countries," (Thailand chapter), report prepared by Infofish, 1987, p. 19.

caused the plan to be neglected.48

The fisheries sector continues to a be a major target area for bilateral aid as well. In the spring of 1984, the Thai Government requested $60 million in U.S. aid for supplies of preventive medicine for fish diseases, shellfish and boxnet culture development, processing technology, and the development of coastal production. Japan recently offered Thailand $4 million for aquaculture technology development.49

5. Fisheries research programs and administration:
Thailand's Department of Fisheries controls all fisheries research projects and programs. Within the Department of Fisheries, there are two research branches: the Exploratory Fisheries Division (EFD) and the Marine Fisheries Division (MFD). While the EFD is chiefly responsible for assessing prospects for joint venture operations, the MFD operates research vessels and appraises fish stocks. Thirty-four fisheries stations which also provide extension services are scattered around the country.

48International Bank for Reconstruction and Development, "World Bank Paper on Harvesting the Waters: A Review of Bank Experience with Fisheries Development," Agenda Item no. 4(a), Fishery Development Donor Consultation, October 13-15, 1986, pp. 26-27, 31.

49Chung-kuo Hsueh-ch'an (China Fisheries Monthly), May 10, 1984 (summary from U.S. Department of Commerce fisheries news reports).

Thailand has five main fisheries research centers. These include the Marine Fisheries Laboratory, Phuket Marine Biological Center, the National Inland Fisheries Institute, the National Institute of Coastal Aquaculture, and the Brackishwater Research Institute. Most extensive research, seed stock production, and technical assistance in Thailand is purveyed by these centers. There are also three inland fisheries centers in Surat Thani, Trang, and Ayuthaya Provinces. Additional research support takes place at Kasetsart and Chulalongkorn Universities. The FTDD and the Institute of Food Research and Product Development (IFRPD) at Kasetsart are developing new means of fish utilization, processing, preservation, as well as designing small scale fish processors and improving quality control techniques.

A major boost for the Thai fisheries industry was the opening of the Tinsulanonda Songkhla Fishery College in September, 1986. Staffed with a faculty of 34 and boasting an enrollment of 502 students, the new facility will train students in a broad range of technical skills from fishing techniques to navigation to marketing. Graduates of this program should be better versed in post-harvest quality control standards and techniques to meliorate fish quality and reduce catch spoilage.

6. 200-mile EEZ policies:

When Thailand officially declared its 200-Mile EEZ on February 23, 1981 it was the last of the insular Southeast Asian countries

to do so. Thailand, destined to lose the most with the proclamation of 200-mile EEZs, presumedly hoped that the UN would arrive at a different plan for managing marine resources. For example, until Thailand's official declaration, Thai officials such as Deputy Foreign Minister Dr. Arun Panupong continued to propose alternative schemes such as joint management of Association of Southeast Asian Nations (ASEAN) waters by member countries.

At Law of the Sea meetings in the mid-1970s, Thai participants such as Panupong and former Deputy Director-General of Fisheries Sawang Charoenpol had argued vehemently that Thailand would lose over 30 percent of its annual catch if neighboring Burma, Malaysia, Vietnam, and Kampuchea were permitted to exclude Thai fishermen from new EEZs.

Realizing that Thai fishery problems would only worsen as neighboring countries improved the enforcement of their EEZs, the Thai Government organized a special committee to discuss means to mitigate the effects of these changes on Thai fishermen. Longphet Sutcharitkun, the Director-General of Foreign Affairs Ministry's Treaty and Legal Department and head of the special committee, invited four UNFAO experts to participate in the meetings.

In December, 1977, the committee suggested several options to re-organize policy in light of the exclusion of Thai fishermen

from traditional fishing grounds. To acquire more satisfactory control over its fishery zone, the Thai Government would need to license Thai fishing vessels. The purpose of this endeavor would not be to reduce the number of vessels in the Thai fishing fleet, but to alleviate the worry among neighboring countries that the Thai Government was not in control of its fleet. A fully registered fleet would enable the Thai Government to more easily negotiate joint venture fishing agreements with other nations. The committee also suggested that all fisheries laws be amended to permit increased government management of resources and greater coordination between management, research, and enforcement (Royal Thai Navy) departments.50

Other recommendations were for technical training in the use of modern navigation equipment so that Thai fishermen could avoid accidental crossings into foreign waters. Training would also be provided to educate fishermen in preserving natural resources. The committee also propounded that the government concentrate on expanding freshwater fish farming. Each of these recommendations was submitted to the NESP Board for approval.51

Once Thailand had proclaimed its 200-Mile EEZ, the government immediately began concentrated efforts to resolve maritime

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50"Effects of 200-Mile Fishing Zone Examined," Bangkok Domestic News Service, December 16, 1977, (from Foreign Broadcast Information Service (FBIS).

51Ibid.

delimitation disputes with neighboring countries and arrange joint venture agreements with those countries which were not fully exploiting their EEZs. Thailand also established its own policy for joint venture operations within its EEZ. Currently, vessel ownership in the Thai EEZ and territorial waters is limited to Thais or partnership of Thai nationals in which 70 percent of the invested capital is held by Thais. Limited companies in which Thais own 70 percent of the invested capital are also permitted.52

B. INDONESIA:

1. Five-Year Development Plans (Repelitas):

Since the initiation of Repelita I in 1969, Indonesia has used the five-year plan as the main policy paradigm for national development. Although the fishery component in each subsequent plan has always expounded the greater development of small scale fishermen, Repelita IV (1984-88) placed special importance on small scale development as the primary socio-economic objective. In order to attain this objective, Repelita IV calls for:

1) Increased construction of fish marketing facilities, ports, and irrigation systems for inland fisheries.

2) Development of an infrastructure to facilitate improved fish marketing and production.

3) Upgrading and constructing harbors with the goal of rejuvenating coastal villages as well as implementing more effective utilization of Indonesia's 200-mile EEZ.

52Gerald Moore, "Coastal State Requirements for Foreign Fishing," Legislative Study, No. 21 (Rev. 1) (preliminary edit.), UNFAO, Rome, 1983.

4) Increased marine, brackishwater, and freshwater aquaculture development.

5) Improvement of fishery extension services to assist fish farmers and fish companies in acquiring technology.

Repelita IV's main fishery objectives are to raise the incomes of fish farmers and fishermen, increase fisheries production at individual and national levels, and to expand productive employment opportunities in the fisheries sector. The plan also seeks to increase fish consumption, increase exports of fishery products, promote resource management, and achieve better resource utilization.53

Several specific corollary tenets were also included in Repelita IV. To insure that production and income for small scale fishermen would increase, the Indonesian Government planned to limit the number of inshore fishermen in heavily-exploited areas. Fishermen were encouraged to join in the Indonesian transmigration program (transmigrasi) so that underexploited fishing grounds of the outer islands might be utilized. The government also hoped to involve more fishermen in offshore and deepsea fishing to better exploit the country's EEZ. Special assistance would be provided to potential aquaculturists to encourage the development of new job opportunities and additional income for fishing families.

53UNIDO, "The Fisheries Industry in Selected Asian Countries," (Indonesia chapter), report prepared by Infofish, 1987, p. 28.

Increased government intervention in the fish marketing sector was designed to establish fair rates of exchange for consumers and fishermen alike. Excessive exploitation by middlemen is seen as a primary reason for the stagnating incomes of small scale fishermen. State-owned fishery enterprises based on the Nucleus Estate Small Holder (NES) system was to support technology transfer and proper market development including the stabilization of prices. Each of the six state-owned fishery companies was organized to act as a pioneering enterprise in resource areas unattractive to private companies. Where NES units are not in place (as is frequently the case in the fisheries industry), Project Management Units (PMU) serve as agents for small scale fishermen.54

2. Government joint venture policies:

Given the underdeveloped state of Indonesia's fisheries industry, it was apparent when the Indonesian Government declared its 200-mile EEZ in 1980 that foreign assistance in exploiting these new resources would be necessary. By 1984, the Indonesian Government had concluded a revised set of regulations governing the establishment of foreign joint ventures in the Indonesian EEZ. The specific conditions regulating joint venture agreements appear in Appendix C.

54Turniati, pp. 12-13.

3. Specific government fisheries improvement schemes:

In coordination with its Repelita IV policy outlines, the Indonesian Government concentrates on four major areas of specific fisheries program development. These areas include extension and training, marketing systems and facilities, fishermen's credit schemes, and resources and management. As part of the extension and training policy, mobile training units are dispatched to remote villages and permanent training centers have been established to assist more advanced fishermen in populated areas. The permanent training centers generally contain aquaculture and mariculture demonstration ponds and sometimes even government-sponsored fish hatcheries. High quality, inexpensive post-larval shrimp and fish fry are distributed to local aquaculturists from these hatcheries.

The construction of more ice plants, cold storage centers, and marketing facilities highlight the Indonesian Government's effort to enhance the quality and value of the fishery catch. As mentioned earlier, the government is seeking to acquire greater control over fish prices with the support of state-owned fishery companies to insure that more profits are reaped by small scale fishermen. Most of the credit supplied to Indonesian fishermen is designed to finance the purchase of motorized vessels, more advanced gear, and to improve aquaculture ponds. More discussion regarding credit schemes will appear in subsequent pages.

The Indonesian Government's declaration of a series of fisheries belts surrounding the coasts has been its most concrete policy effort to manage and develop the country's resources. These new regulations limit the belt closest to shore to artisanal fishermen. At greater distances from the coast, more advanced gear and techniques may be utilized. This plan is expected to facilitate more efficient and effective management and enforcement of Indonesia's fishery grounds.

To prevent overfishing of demersal fish stocks, the government banned inshore trawler fishing completely. From a social point of view, artisanal fishermen remain reliant on demersal fish stocks. As part of a plan to develop underexploited regions, especially those in the eastern islands, the government has begun organizing fishing bases to attract investment. These fishing base investment programs converge with Indonesia's transmigrasi program as well.55

Most of Indonesia's fisheries research takes place within the Central Research Institute for Fisheries (CRIFI). CRIFI, a branch of the Agency for Agriculture Research and Development, coordinates fisheries research at Indonesia's universities as well as at three research institutes: Research Institute for Marine Fisheries, Research Institute for Freshwater Fisheries, and Research Institute for Coastal Aquaculture.

55Turniati, p. 11.

4. Government credit programs:

Large numbers of small scale fishermen have become permanently indebted to middlemen and other providers of non-institutional credit. In the past, fishermen have relied either on traditional, non-institutional or foreign, private sources of credit. It has not been until recently that bonafide government sources of credit have become available. The Indonesian Government has realized that satisfactory development of an economically feasible small scale fishing sector will not be possible without adequate provisions of working capital and investment credit.

To facilitate distribution of credit, the government established the Kredit Investasi Kecil (KIK) and Kredit Modal Kerja Permanen (KMKP) Institutes. KIK supplies small and medium-sized businesses with fixed capital, while KMKP is in charge of distributing working capital loans to these enterprises. This credit has been provided to former trawler crews hurt by the trawler bans, artisanal fishermen, and aquaculturists. In 1982 and 1983, 5,719 million rupiahs in credit funds were granted to individuals and companies in the fishery sector.56

Four main types of credit are available to fishermen and aquaculturists. BIMAS (agriculture extension program) credit or (Fishermen and Fish Farmer's credit) is extended to small scale

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56"Great Developments in Indonesian Fisheries," 1984, p. 16.

fishermen for the purchase and improvement of vessels, gear, and aquaculture ponds. A interest rate of 12 percent per year is charged on these loans. The BIMAS loans, originally designed to alleviate problems created by the trawler ban, have a maximum limit equal to the value of a 10 GRT trawler plus gear or the cost of operating a two-ha fish farm.

Working Capital credit supplements small investment credit. Maximum loans of 10 million rupiahs are availabe at a 12 percent annual interest rate. Mini-Credit of 10,000-200,000 rupiahs and Midi-Credit of 200,000-500,000 rupiahs include both working capital and investment credit. Whereas Mini-Credit can be secured from state banks at the village level, Midi-Credit is distributed by state banks at the district level.

The Indonesian Government also provides subsidies on fuel, fishing materials, fertilizers, and pesticides. However, communication and distributional problems prohibit the reach of these subsidy programs in more remote areas. Furthermore, expensive policies such as the fuel subsidy program continue to drain government revenues.

5. International aid programs:

Indonesia relies heavily on multilateral and bilateral assistance to fund its fishery development projects. Foreign joint venture operations with Indonesian fishery companies also aid in techno-

logy transfer imperative to the advancement of the fishery industry. Among the leading international aid organizations involved with projects in Indonesia are the ADB, the Islamic Development Bank, the World Bank, and the UNDP. The Inter-Governmental Group on Indonesia (IGGI) including the U.S., Japan, and the EEC nations are major purveyors of bilateral aid.

Foreign assistance in Indonesia is primarily directed at resource assessment (especially in the 200-mile EEZ), development of appropriate technology, fisheries training, and the establishment of fisheries extension services. International fisheries aid also is used in identification and preparation of projects, piloting projects, and financial assistance to commercial operations.

An extensive infrastructure improvement plan has been undertaken by the Indonesian Government with financial support from the ADB and the Islamic Development Bank. The $83.3 million fisheries project is intended to expand exports by opening up new fishing ports. Begun in 1985, the specified project objectives are to construct and improve eight docks at major fishing ports and build or rehabilitate 25 more docks at provincial centers. These new facilities are expected to handle an additional 178,000 t annually and provide employment for 45,000 more fishermen and

50,000 shore workers.57

Both traditional inshore fishermen and the modern deepsea fleet working in the EEZ are to benefit from the new facilities. It is hoped that these new port facilities will exhort more fishing in underexploited waters north and west of Sumatra, south and north of Java, and throughout the seas of eastern Indonesia. At the sametime, the government will encourage private companies to construct and operate ice plants, cold storage centers, and processing units near these new facilities. This development should be concomitant with government NES policies in which government-built infrastructure attracts productive, efficient private enterprises. The development project also seeks to provide funds to purchase vessels and refurbish equipment of fishing vessels weighing over 60 dead weight tons.

Presently, the World Bank, another major multilateral financier of Indonesian fishery projects, has four projects in operation in the country. Poor management and intra-governmental disputes vastly undermined progress in the First Indonesia Fishery Project funded by the World Bank. The project which included construction of shore facilities and 30, 30 ton skipjack pole and line vessels began production four-and-a-half years behind schedule and eventually had to be removed from Directorate General of

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57"Focus on New Ports in Indonesia's Development Plan," Fishing News International, May, 1985, p. 9.

Fisheries jurisdiction.

A second World Bank-International Development Assistance (IDA) project, the Fisheries Credit Project, approved in 1974, featured a conflict between the Directorate General of Cooperatives (DGC) and Perun Perikanan Maluku (PPM), a state-owned fisheries enterprise in the Moluccas. At the center of the dispute was the refusal of PPM to compensate the DGC for 10 fishing vessels they had received because the vessels had been delivered behind schedule. A second facet of the project was to provide technical and financial assistance to 9,000 fish farmers. Only 3000 aquaculturists were ever involved in this program.58

The fisheries components of two additional World Bank projects, the Jogjakarta Rural Development Program and the National Agriculture Research Program, have proved much more successful than the two earlier projects.

6. 200-mile EEZ policies:

Discouraged by the limited number of foreign governments interested in negotiating fishing rights in the Indonesian EEZ, the government, by 1986, had relaxed many of its regulations on joint venture agreements in Indonesian waters. No longer were government-to-government agreements necessary for private foreign

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58IBRD, "World Bank Paper on Harvesting the Waters: A Review of Bank Experience with Fisheries Development," (Indonesia chapter), 1986, pp. 23-25.

companies to sign joint venture contracts. Joint venture companies were now permitted to operate in Indonesian territorial seas (within 12 miles of the coast) as long as vessels were Indonesian-built. Foreign-manufactured vessels could now operate within Indonesia's EEZ beyond the territorial seas.

Desparately in need of increasing non-oil exports, the Indonesian Government simplified the joint venture application procedure and removed landed catch duties on all fishery products destined to the export market. To gain access to the Indonesian EEZ all that is required under the new rules is an established Indonesian agent and clearances from the Directorate General of Fisheries and the military. Catch fees are still charged by the government.59

According to Director General of Fisheries, R. Subrapto, the simplification in the joint venture application procedure has resulted in an influx of private vessels, mostly Taiwanese, into the Indonesian EEZ. Approximately 50 Taiwanese and three Thai fishing vessels are said to be operating in Indonesian waters. Major EEZ development target areas for the Indonesian Government lie in the Indian Ocean, south of Java and Sumatra, the Sulawesi Sea (tuna and lobster fisheries), and the Pacific Ocean, north of

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59U.S. Department of State, "GOI Encouraging Development of its Fishery Sector," U.S. State Department cable, American Embassy, Jakarta to U.S. Secretary of State, Washington, D.C., October 28, 1986, p. 1.

Irian Jaya.

While the Indonesian Government is encouraging companies in friendly western nations to sign joint venture agreements with Indonesian agents, this invitation has not been extended to Soviet or East Bloc vessels. Despite its willingness to compromise its original joint venture requirements in the EEZ, the Indonesian Government is not budging in the face of foreign and domestic pressures to alter policy in territorial seas. In an effort to protect national economic interests, joint ventures in territorial waters may only be signed with legitimate Indonesian companies.60

According to the Indonesian Government Decree 477 of 1985, foreign fishermen are charged a registration fee of $3.00 for every gross ton of vessel weight and a $100 for an annual fish catch permit. Longline vessels are required to pay $69 per cubic meter (m3) of hold space. Pole line and purse seining rigs are charged $82 and $85, respectively, for every cubic meter of hold area. Gillnetters or vessels other than trawlers must pay a fee of $44 per mubic meter of storage. All fees are charged on an annual basis.61

60Ibid.

61"Fees for Foreign Ships Fishing in EEZ," Antara News Service Bulletin, July 15, 1985, (from FBIS).

With a relaxation of its joint venture regulations, the government hopes to increase fishery production in its EEZ. In recent years, only 40,000 t of fish annually have been caught in the EEZ. Indonesia's total fishery catch in 1986 was approximately 2.5 million tons.62

Indonesian Government Decree 473 of 1985 established catch limits for the EEZ. Although Indonesia's EEZ waters are vastly underexploited, the government appears anxious to develop proper fisheries management practices. The decree, effective July 1, 1985, limited total annual pelagic catches to 1,115,751 t, demersal catches to 582,731 t, and tuna catches to 75,915 tons.63

Perhaps the greatest EEZ management problem faced by Indonesia is a dearth of air and sea surveillance capabilities. Indonesia's Sea and Air Police rely on a few helicopters and light aircraft as well as various small and medium-sized vessels to patrol their entire EEZ. Historically, Indonesia has had problems controlling foreign fishing activities in territorial seas. For example, in 1974, 75 Taiwanese vessels were confiscated by Indonesian patrols for fishing violations in Indonesian territorial waters. At one point, Indonesian Sea and Air Police were granted permis-

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62U.S. Department of State, "GOI Encouraging Development of its Fishing Sector," p. 1.

63"Fees for Foreign Ships Fishing in EEZ."

sion to fire on illegal foreign fishing vessels.

It is suspected that Thai and Taiwanese fishermen currently operating in the Indonesian EEZ report only part of their catch to Indonesian authorities to avoid paying higher catch fees. Unable to properly patrol their EEZ waters, Indonesian management authorities also fear that environmental damage may be wrought on fishery resources through the use of illegal gear and fishing techniques.

Notwithstanding Indonesia's management and surveillance problems, the international Law of the Sea agreement requires that the Indonesian Government permit other nations to exploit its resources if it is unable to do so itself. As a result, if proved economically feasible, more foreign fishing vessels will probably gain access to Indonesia's expansive EEZ waters.

IV. ANALYSIS OF GOVERNMENT FISHERY POLICIES:

The fisheries industries of both Thailand and Indonesia have not been without problems. Each country has confronted a series of varying and similar development complications. A shortage of adequate landing and processing facilities as well as poor quality control standards have hindered fisheries progress in both countries. Like other industries in developing nations, the fisheries industry suffers from the lack of modern technology and

manpower skills.

The international Law of the Sea Agreement with its provisions permitting proclamations of 200-mile EEZs has created very different problems for both Thailand and Indonesia. While Thailand is contending with how to employ fishermen excluded from traditional fishing grounds, the Indonesian Government must learn how to productively and efficiently manage the massive marine region it has recently acquired. Inevitable clashes between traditional, artisanal fishermen and the modern, technically-equipped fleet occur in both countries. As a result, the Thai and Indonesian Governments must develop means to manage their dual economies both efficiently and equitably.

Rapidly depleting fishery stocks in the Gulf of Thailand and the inshore regions of Java, Bali, and Madura plague Thai and Indonesian officials. Without adequate means to patrol and enforce its fishery zones, the stocks of both countries could continue to be afflicted by overexploitation and pollution.

A. <u>THAILAND</u>:

1. Problems:

When Thailand's neighboring countries began declaring their 200-mile EEZs in 1977, the Thai fishing industry immediately confronted exclusion from their most productive grounds. Initially, the coastal patrols of Vietnam, Burma, and Kampuchea

were not strong enough to seriously disturb Thai fishing efforts in their newly-declared EEZs. Even though Thailand had officially lost 480,000 km2 of fishing grounds, Thai fishermen continued to fish in foreign waters illegally.64

By the early 1980s, foreign government confiscations of Thai fishing vessels and arrests of crewmembers were rapidly increasing. Improvements in surveillance and enforcement of fishing zones by Thailand's neighbors were having a significant effect on illegal Thai fishing operations in these waters. However, while 35 vessels and over 1,000 crewmembers were detained by foreign governments in 1982, the economic benefits still encouraged Thai fishermen to enter foreign EEZs. One report stated that,

> According to a group of fishermen in Rayong Province fishing in foreign waters is a favorable risk. The income they can get between fishing in Thai waters and foreign waters is incomparable. They said that fishing in Thai waters would earn about 300,000 baht a trip while a similar excursion into foreign waters could earn them up to two million baht.65

Reports of Thai fishermen bribing Vietnamese and Kampuchean patrols with steel, rice, and fuel are common. Former Director General of Fisheries, Captain Sawang Charoenpol, said, "This has been going on for a long time, and the Thai coastal authorities are aware of it."66

64Crough, p. 1.

65"Incentives Prompt Fishermen to Risk Jail Overseas for Territorial Waters Violations," Bangkok Post, September 9, 1982, (from FBIS), p. 4.

66Ibid.

Strict crackdowns by the Vietnamese, Malaysians, and Burmese on illegal Thai vessels have become the norm. In 1985 alone 89 trawlers and 1246 crewmembers were seized by foreign governments. Of the total number of trawlers confiscated, 35 were captured by Vietnam, 28 by Malaysia, 14 by Burma, four by Indonesia, and two by India.67 The Vietnamese offered to release 466 Thai fishermen in 1986 for compensation of $500-1,000 per person.

Whereas the southern Thai ports of Songkhla and Pattani were hurt by vessel confiscations by Malaysian patrols, Thai fishermen in the Burmese area of the Andaman Sea now had to contend with a Burmese coastal fleet of 42 boats and six helicopters provided by the Japanese.

Despite Thai frustrations surrounding the LOS agreement, government officials did believe that LOS corollaries would permit the establishment of fishery agreements with neighboring countries. A chief corollary states that,

> 'Where a coastal state does not fully utilize the resource, it is expected to grant access to other countries to catch the surplus fish under conditions set by the coastal state.'68

67U.S. Department of State, "Southern Thai Fisheries: A Two-Year Update," U.S. State Department cable, p. 5.

68"Thai Fish Crisis," World Fishing, January/February 1982, p. 25.

However, Thai officials confronted disinterest or demands of exorbitant fees when approaching neighboring countries regarding fishing agreements.

From 1979-1982, the annual Thai fisheries catch plummeted from 2.2 million t to 1.8 million tons.69 Losses of up to 800,000 t were attributed to the exclusion of Thai fishermen from foreign EEZs. Due to Thailand's geographic location along the Gulf of Thailand and the Andaman Sea and its close proximity to Burma, Malaysia, and Vietnam, at no point does the Thai EEZ extend the full 200 miles. For example, on the Andaman Sea, Burmese claims permit the Thai EEZ to extend only 160 nautical miles from the coast.

As Thai offshore trawlers were forced back into the resource-depleted waters of the Gulf of Thailand and the Andaman Sea, overexploitation became an even greater enigma. By 1980, average hourly catches in the Gulf of Thailand had fallen to 38.9 kg per hour. This contrasts with an hourly average of 231.9 kg in 1963.70

A potentially explosive and combative situation was created between the offshore trawler and purse seining fleet and coastal,

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69Department of Fisheries, Thailand, catch statistics.

70"Thailand: Fisheries in Decline," Eurofish Report, August 30, 1984.

artisanal fishermen. Confronting greater competition from more advanced offshore fishermen, artisanal fishermen increased their use of inappropriate equipment such as fine mesh pushnets. Such gear traps juvenile shrimp and fish species, resulting in a 50 percent decline in the catch value per ton between 1980 and 1983. An increasingly larger percentage of the by-catch or trash fish catch (50 percent) was juvenile or undersized fish.71

In assessing the Thai fisheries prognosis, a recent ADB report states that,

> The fisheries of the Gulf of Thailand are undoubtedly overfished and only the pelagic resources of the Andaman Sea coast offer some very limited opportunities for expansion. The inclusion of catches from outside Thai waters in Gulf and Andaman Sea statistics gives the misleading impression that yields are being sustained.72

Pollution and other environmental problems related to Thailand's rapid industrial development efforts have also damaged the nation's fishery stocks. Heavy industrial development in Chon Buri Province on the coast and along the Chao Phraya River is contaminating Thailand's marine fishery beds in the Gulf of Thailand. New factories such as petro-chemical plants have been dumping large quantities of waste into inland and coastal water sources. Deforestation of mangrove swamps and inland forests has

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71Crough, p. 2.

72Asian Development Bank, "Thailand Fisheries Sector Study," Manila, 1985, p. 78.

resulted in erosion and heavy siltation of coastal regions. This process has also contributed to the degradation of nursery grounds for marine fish and shrimp. The ADB has noted that the Thai central government's limited land and water resource management policies are partly to blame.

Poor quality control standards continue to undermine Thai efforts to increase fishery products exports. Without adequate post-harvest handling both on-board and onshore, it will be extremely difficult for Thailand to improve the quality of end-products. Despite the existence of 19 main port facilities and numerous ice plants and cold storage centers throughout the country, many of these facilities are primitive and unsanitary. Thailand is presently confronting a problem of insufficient quality raw material to supply its fish and seafood canneries. To upgrade the fisheries catch, fishermen are desparately in need of new equipment, training, and storage facilities.

High fuel costs in the late 1970s and early 1980s almost destroyed the entire industry. After increasing by almost 80 percent between 1978 and 1982, fuel costs finally declined slightly and stabilized.73 Still, an extensive credit program organized through the fishing cooperatives has been the only reason much of the industry remains afloat. A Department of Fisheries survey showed that 74 percent of all Thai fishermen are unable to

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73"Thai Fish Crisis," p. 25.

finance their own operations. Of this group, 47 percent are indebted to local fish traders, while another 20 percent have borrowed working and investment capital from banks.74

2. Solutions:

The Thai Government's most imminent fisheries problem has been how to re-structure the fishing industry following the LOS agreement and the exclusion of Thai fishermen from other nations' EEZs. Since neighboring countries began enforcing their EEZs, the Thai Department of Fisheries has been struggling to determine sound policies through which to deal with fishermen and vessels arrested and confiscated by foreign officials.

Early policies during Captain Sawang Charoenpol's tenure as Director General of Fisheries delineated that confiscations and captures of fishermen and vessels by foreign authorities were a political matter to be handled by the Ministry of Foreign Affairs. Although the Department of Fisheries assumes no financial responsibilities for recovering vessels, it does act as a liason between foreign fisheries officials and Thai vessel owners. Generally, when the Department of Fisheries is notified of a boat's capture, it relays this information to the Ministry of Foreign Affairs, the Navy Operation's Center, and the boat's owner. Foreign governments often charge towing and storage fees for confiscated vessels. The Department of Fisheries may

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74"Thailand: Fisheries in Decline."

then request payment from the owner before the vessel can be recovered.

While the Department of Fisheries has no budget for recovering confiscated vessels, the Ministry of Foreign Affairs administers a Department of Social Welfare assistance fund which aids those who have had mishaps abroad. However, this fund is limited and the Department of Social Welfare cannot afford to exhaust its entire resources on the numerous fishermen arrested for fishing violations.

A Department of Fisheries proposal sent to Prime Minister Prem's Cabinet and the Ministry of Agriculture in 1983 offered the most direct solutions to the problem of illegal fishing. The first part of the proposal called for the formation of a fund raised by taxing exporters of marine products. This fund, which would initially contain 5-10 million baht, would be used to aid captured fishermen. The second half of the proposal ordered boat owners to share the responsibility for recovering vessels and freeing crewmembers.75

Other direct Department of Fisheries policies were to enlist the Royal Navy in aiding the navigational and legal training of Thai fishermen to avoid straying into foreign waters. Although this

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75"Proposals to Ease Fishermen's Plight," The Nation, September 5, 1983.

program was first initiated in the late 1970s, a Department of Fisheries special committee on fisheries and aquaculture reiterated the importance of this training program in March, 1984.

To help alleviate the fishing industry situation and take advantage of LOS agreement corollaries which allow governments to negotiate access to other nations' fishery zones, the Thai Government began approaching neighboring countries with the hope of establishing joint venture agreements. In the case of Vietnam and Kampuchea, Captain Sawang, admitted in the late 1970s, that the political situation was not conducive to government-to-government negotiations with these countries.

Meanwhile, Thailand has had excellent success in establishing joint venture agreements with more western-oriented nations. Such agreements often have to be re-negotiated on a yearly basis. Therefore, joint venture discussions and exchanges tend to be on-going. Thailand presently has joint venture arrangements with Indonesia, India, Bangladesh, Malaysia, Saudi Arabia, Oman, China, and Australia. Other potential target nations for joint venture operations include Senegal, Morocco, Brunei, Papua New Guinea, and the Pacific island nations. Many of the Pacific island countries believe that Thailand represents a welcome presence in light of growing Soviet influence in the area.

Despite Thailand's success in arranging joint venture agreements,

high fuel costs, technological backwardness, and difficult market situations have undermined the effectiveness of the Thai deepsea trawler and purse seining fleet. In evaluating Thai fisheries policy options as part of its "Thailand Fisheries Sector Study," ADB officials suggested that,

> International waters in the Pacific and Indian Ocean offer some scope for exploitation by Thai fishermen. The main potential, at least in the Pacific, is for purse seining of skipjack, tuna, and other large pelagic species. This would, however, require larger vessels to be constructed (or purchased secondhand) and the development of carrier capacity. Additionally, it should be emphasized that the best areas for skipjack lie in the EEZs of various coastal nations...Thai fishermen will have to compete with other highly developed fishing fleets. Further, it should appreciate that a strategy dependent on increasing usage of fossil fuel for production may be risky.76

Australia and New Zealand, two nations interested in seeing a greater Thai fleet presence in South Pacific waters, are providing modern equipment and soft loans to Thai fishermen to encourage the fleet's expansion. The Thai Government remains very flexible on the types of joint venture agreements negotiated with each individual country. For example, in the case of the Pacific island countries, the Thai Government is willing to sell fish caught in those fishery zones directly to the islanders, whereas, it is also disposed to comply with Morocco's request for Thai fishermen to operate Japanese-built trawlers.

Even with greater expansion into the other nation's fishing

76ADB, "Thailand Fisheries Sector Study."

zones, Thailand continues to face resource depletion problems in its own waters. Stiffer restrictions on the number of vessels operating in the Thai EEZ and the types of gear utilized are an integral part of new government fisheries management policies. Although the government has not ordered any trawler vessels to cease operations, it has discontinued registering any new stern trawlers.

Greater efforts are being made to protect spawning grounds and control pollution in important marine resource areas. These policies, however, remain nebulous and government agencies lack the legal ordinances to effectively enforce any cleanup campaigns. Efforts to control pollution and damage to valuable resources often conflict head-on with the Thai Government's industrial development policies. Thailand is anxious to develop at great cost, and, unfortunately, resources such as the fisheries may be sacrificed for the sake of short-term progress in the heavy industry sector.

The Thai Department of Fisheries has been encouraging and supporting aquaculture and mariculture development as an alternative to conventional coastal fishing. Foreign grants and technical assistance have been vital to this development. Aquaculture research centers and projects carried out by the Chulongkorn and Kasetsart Universities have furthered the development of more intensive fish and shrimp farming techni-

ques. Former Director General of Fisheries, Captain Sawang, mentioned that,

> ...If fishermen are interested in raising fish along the coast, we have an area of about 2,600 kms along the coast for them to do so.77

As part of an effort to strengthen security sensitive, poor villages bordering Laos, Kampuchea, Burma, and Malaysia, officials introduced village fishery programs in 1981. Under the program, "Projects for Villages Volunteering Development for Self-Defense (Pho Po)," freshwater and marine fish farming is being promoted as an alternative livelihood and food source.78

In cooperation with international aid organizations, the Thai Government has been expanding aquaculture research and development projects. In addition, projects are also in progress for the construction and improvement of fish harvesting facilities. As mentioned earlier, many of Thailand's fishery development projects are aimed at improving ice plants, storage centers, and landing docks.

B. INDONESIA:

1. Problems:

Indonesia's predominantly small scale fisheries sector is plagued

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77"Territorial Waters Problems, Depletion of Fish in the Gulf-- Interview with Thai Director General of Fisheries," Matichon, April 9, 1984, (from FBIS), p. 13.

78Ibid.

by numerous development problems. Low levels of technical and infrastructure development are inherent throughout the Indonesian fishing industry. Despite increasing overall catch totals, the expoitation of Indonesia's fishery resources is excessively unbalanced. While fish stocks near Indonesia's population centers in Java, Bali, and Madura continue to be dangerously overfished, technological deficiencies prohibit Indonesian fishermen from expanding operations into fisheries-rich areas elsewhere in Indonesia's EEZ.

As mentioned previously in this paper, the Indonesian fisheries sector suffers from inadequate technical and managerial knowhow, poor bargaining positions in the fishery markets, few financial or investment capabilities, and an increasing limitation on resource availability (on Java). Fishing techniques and equipment used by most Indonesian fishermen is crude and highly inefficient. For example, small, unmotorized prahu vessels which make up the majority of the fishing fleet are limited to coastal areas and do not have cold storage capabilities. Most fish products landed are not iced or stored properly, resulting in catch spoilage of 20-30 percent.

A highly localized market system dominated by middlemen prevents fishermen from influencing fish prices. Insufficient transportation, storage, and processing facilities further separate local fishermen from lucrative central and export markets.

Until recently, small scale fishermen had to depend on middlemen for operating credit as well. Many of these fishermen have lifetime debts to unfair money lenders, since government sources of investment and working capital loans were unavailable.

2. Solutions:

Government realization that geographic distribution, and poor fishing ports, storage centers, credit sources, marketing systems, and other services are obstructing fisheries development has prompted interest in more fisheries projects. Indonesia's need to develop non-oil exports in the wake of declining world oil prices has caused greater emphasis to be placed on fisheries development. Furthermore, the Indonesia Government understands that failure to properly manage its newly-acquired EEZ waters will represent a loss of one of Indonesia's most important resources.

The $83.3 million fisheries infrastructure and vessel development plan Indonesia has undertaken with ADB and Islamic Development Bank financing is an example of Indonesian Government efforts to further advance the fisheries sector. By improving infrastructure and on-board and onshore processing techniques, post-harvest losses can be reduced.

To increase the incomes of small scale fishermen and fish

farmers, the government is attempting to intervene in local markets to more evenly distribute profits from fish sales. Additionally, extension services and training are designed to educate fishermen in post-harvest handling and integrate a stronger central market and export-orientation in local attitudes. If fishermen concentrated more on capturing highly valued shrimp and tuna, incomes might be elevated. The credit schemes recently introduced by the government are intended to finance more innovation and gear improvement plans among artisanal fishermen.

Unless the Indonesian Government expands its surveillance and enforcement capabilities, Indonesia may risk losing its valuable fisheries resources. Overfishing in coastal areas of Java, Bali, and Madura has already depleted stocks to dangerous levels. Tougher central government policies are necessary to adequately control fisheries management in these areas. Indonesia is also confronted with fisheries management problems in its distant waters. The advent of joint venture fishing agreements and a subsequent influx of foreign fishermen means that more and more fish is being taken from Indonesia's EEZ. Many suspect that these foreign vessels are catching more fish than they are reporting to Indonesian authorities. Without sufficient patrol and enforcement of their EEZ, Indonesia may lose significant quantities of their fisheries resources and not receive equitable compensation.

V. THAI AND INDONESIAN POLITICAL AND ECONOMIC REALITIES:

In Thailand and Indonesia, a large degree of state autonomy has existed since bureaucratic authoritarian regimes were organized in these countries in the 1930s and 1940s. With the rise of state autonomy and modern political structures dominated by a relatively restricted group of elites, state policies have contradicted traditional political culture. Development of sectors such as the fishery industry has meant that traditional interests and practices have had to be discounted. Thus, these states have had tremendous difficulties integrating economic and social streams. Instead, policies have often been oriented toward furthering personal political advantages rather than for the benefit of certain neglected groups.

Export-oriented industrialization and the structural adjustment programs of the 1980s have been commandeered by developmental, bureaucratic authoritarian, and highly corporatist states in Indonesia and Thailand. These states followed the market-oriented demands for growth by maintaining political order. Therefore, a situation of "overcontrol at the political level" and "undercontrol at the economic level" prevails to a certain degree in each of these states. Political repression is perpetrated while entrepreneurial groups have been provided with maximum economic

freedoms.79

Consequently, these policies have prohibited the development of organized labor and environmental protection, while undervalued currencies have squeezed the most poverty-stricken layers of society. Still, the state, through export-oriented industrialization policies, promotes capital accumulation and economic success for state institutions. An autonomous state pushes economic growth in its underdeveloped sectors through increasing state intervention. The success attained through these policies results in greater political stability and the re-affirmation of the corporatist, bureaucratic authoritarian state. As a result, political development colludes with economic growth theory.

Although Thailand and Indonesia represent bureaucratic authoritarian states striving towards the development of "capitalist state enterprise" systems, the policy paradigms and history behind this development vary widely between the two regimes. Having never been colonized by European or North American powers, Thailand possessed a capitalistic, enterprise legacy dating back at least to the mid-nineteenth century. After achieving independence from the Dutch in 1949, Indonesia followed strong centrist policies in which the rule of the country was controlled by strong individual leaders (i.e., Sukarno and Suharto) on Java.

79R. Higgot and R. Robison, p. 43.

Comparatively, Indonesia can be characterized by a large degree of state autonomy with much market intervention in the form of state-owned enterprises, while Thai governments have permitted the development of private companies in tight collusion with government officials and organizations. Statistically, Indonesian state-owned enterprises in 1980 controlled 91.5 percent of total domestic credit.80 Meanwhile, the state-owned enterprises in Thailand retain a much lesser degree of influence. Shares in grossed fixed capital formation for Thai state-owned enterprises amounts to only 12.8 percent of the national total.81 Additionally, Thai state-owned companies' shares in GDP at factor costs (1970-73) totals only 3.6 percent.82

A. National Political and Economic Antecedents:

THAILAND:

Unlike Indonesia, Thailand has a long tradition of national bourgeois development reaching back to the nineteenth century. A growing alliance between the new bourgeois and the sakdine (ruling) class in combination with an expanding international business presence in Thailand encouraged a capitalist state tradition in Thailand.

80Mary Shirley, Managing State-Owned Enterprises, World Bank Staff working papers no. 577, Washington, D.C., 1983, p. 15.

81Ibid., p. 96.

82Ibid., p. 95.

Originally, the Thai bourgeoisie, dominated by naturalized and overseas ethnic Chinese, invested heavily in the agricultural sector. However, after the 1932 military coup, the economic environment became conducive to small industrial development. By the 1950s, there was increasing pressure for Thailand's bureaucratic authoritarian state to invest in infrastructure development. Gradually strong links evolved between the state bureaucracy and newly-emerging Thai business and industrial groups. At the sametime, the Thai state elite maintained a "despotic paternalism" over this economic development.

By the 1960s, the Thai Government was encouraging industrial development through financial and technical assistance and incentives. This is evident in the Department of Fisheries development of a deepsea trawler proto-type which eventually stimulated an incredible expansion in Thailand's offshore and deepsea fishing fleet.

To promote the evolution of a "capitalist enterprise state," the Thai Government developed its own state enterprises, while fostering investment and advocating guarantees to private enterprises. The BoI's Promotion of Investment Act (B.E. 2503) of 1960 offered a wide-range of incentives including tax holidays, and tax and tariff exemptions on imported components. Meanwhile, the Thai Government declared that its chief responsibility was to insure that the economic environment was con-

ducive to private investment for both foreign and domestic firms.83 Foreign assistance and investment as well as the U.S. military presence in Thailand during the Vietnam War also fueled economic growth.

With these new government assurances, Thai big capitalists (i.e., banks, financiers, and industrialists) began investing more in the Thai economy. New economic freedoms included fewer restrictions and greater privileges in development and a decreasing chance of nationalization. However, many of the smaller, less powerful firms were overrun when new investment policies became effective. As a result, working and investment credit was necessary to insure new growth in the highly underdeveloped sectors of the economy such as the artisanal fisheries industry.

Through political and economic intervention, the Thai state has allowed the capitalist classes to expand the capital accumulation base of the economy. Consequently, the bourgeoisie has moved from investment in small, petty commodities activities to large-scale industrial endeavors. By engaging in regulatory and promotional activities, the Thai state elites (in the capacity of the BoI) have expanded their role in the development of the economy.

83Kevin J. Hewison, "The State and Capitalist Development in Thailand," in Southeast Asia, ed. by Richard A. Higgot and Richard Robison. (London, Boston: Routledge & Kegan Paul, 1985), p. 279.

The Thai Government, in contrast to the Indonesian state, has not developed a powerfully centralized institution. While the central government in Bangkok does maintain the most prominent leadership role in Thailand, provincial state governments hold a great deal of autonomy as well. Additionally, Thai state institutions and state-owned enterprises control a relatively small segment of the business and industrial sectors of the Thai economy.

In the fisheries industry, the Thai Government relies almost entirely on private sector activities. Fishing and fish processing companies may receive significant quantities of assistance from the BoI, but the Thai Government does not own or control these operations. This represents a fundamental difference in Thai and Indonesian Government development strategies for the fisheries industry. Whereas the Indonesian Government has been compelled to create state-owned enterprises or parastatals and the NES system to encourage fisheries development, the Thai Government has utilized technical assistance, investment credits, and other incentives to promote fisheries growth.

INDONESIA:

Suharto's New Order Government which claimed power following the failed 1965 coup attempt in Indonesia aspired to create order after the chaotic political and economic scene of the Sukarno

era. The ideologues of the Sukarno Government were replaced by military technocrats intent on re-structuring Indonesia into a modern capitalist state. With the expansion of the technocratic bureaucracy as a policy making force, there was a greater need for government intervention in the economy to control and encourage capital accumulation. To accomplish these objectives, it was necessary to develop a regime that legitimized power in terms of economic growth.84

Sukarno's failed social revolution and import substitution industrial policies as well as a weak class system in Indonesia permitted Suharto's New Order Government to usurp control. Although the new state realized the importance of government intervention in developing the economy, it also understood the need to create a strong private sector and encourage investment from abroad. Hla Myint notes that in the post-independence period,

> ...countries such as Burma and Indonesia were obsessed by the fear that once the foreign enterprises were allowed in to re-establish themselves in the export industries, they would regain their old 'stranglehold' on the economy...These countries were more interested in getting a large share of the cake irrespective of what was happening to the size of total output.85

84Richard Robison, "Class, Capital, and the State in New Order Indonesia," in Southeast Asia, 1985, p. 299.

85Hla Myint, "The Inward and Outward-Looking Countries of Southeast Asia," in Malayan Economic Review, XII (1), April, 1967, reprinted in Myint, Economic Theory and the Underdeveloped Countries, (London: Oxford University Press, 1971).

In the Suharto period, state-owned enterprises such as Pertamina, the oil producing and distributing organization, have dominated the economy. Most of the funds for development have come from foreign assistance from organizations like the ADB and the IGGI or from government revenues obtained through oil exports. Consequently, the state maintains considerable financial autonomy. The private economic sector is still very underdeveloped. However, according to Booth and McCawley,

> Since 1966 Indonesia has swung from the 'inward looking attitudes' portrayed by Myint and has endeavored to adopt at least some of the policies displayed by Thailand, the Philippines, and Malaysia.86

The Golkar, Indonesia's only legal political party, represents a corporatist organization which has established strong ties to Indonesia's small bourgeois class. In Indonesia, the structural state is extremely important. While the Indonesian military dominates the political scene, the structure of the state is designed to encourage capital accumulation and benefit the capitalist classes. Economic growth generated through these policies legitimizes the state and the structural relationships it is founded on.

By protecting private property and capital accumulation, sponsoring infrastructure construction and rehabilitation projects, and

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86Anne Booth and Peter McCawley, "The Indonesian Economy Since the Mid-60s," in The Indonesian Economy During the Soeharto Era, (Kuala Lumpur, New York: Oxford University Press, 1981), p. 11.

providing investment credit and subsidies, the Indonesian Government encourages bourgeois development. The relationship between the state elite and the landowning classes, both traditional and modern, is "forged out of mutual necessity, mutual benefit, and out of fear of alternatives."87

Golkar and its team of Berkeley technocrats have dominated development policy making, integrating this policy with the ruling ideology of the military. As a result, while the income of government officials has continued to climb, broader perspectives on development policy have been ignored and discredited.

In the meantime, state corporations became involved in direct investment, joint ventures, and banking operations. State-owned companies such as Bulog, the rice storing and marketing organization, transformed the state into a role as a direct capital accumulating body. Since no large domestic private sector operations existed, the Indonesian Government also became the sole conduit for international capital investment.

Few of the regulatory and descretionary policies of the Sukarno era were abandoned when Suharto came to power. Tight controls over the influx of foreign capital continued to be maintained. Indonesia hoped to obtain the development benefits of foreign

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87Robison, "Class, Capital, and the State in New Order Indonesia," p. 308.

investment while avoiding the drawbacks. These regulatory powers only increased the role of the state vis-a-vis the private sector. Significant growth in the size of the state bureaucracy created added red tape and corruption within the bureaucracy and state-owned enterprises.

Increased foreign assistance and large oil revenues were funneled into infrastructure development in the 1970s. Additionally, the impact of technology and, subsequently, improved techniques and equipment in many underdeveloped sectors. More motor-powered vessels and improvement of fishing techniques were chiefly responsible for the immense increase in fishery production in Indonesia during this period. Better transportation epitomized in the seemingly ubiquitous "colt" truck aided in distributing fishery products from rural areas to central markets.

By the 1980s, the decline in oil revenues and the need to develop non-oil export industries forced the Indonesian Government to re-consider its complicated joint venture and regulatory policies. For example, to encourage more foreign fishing joint ventures in its EEZ, the government has simplified the application process and eliminated some of the sticking points discouraging foreign involvement.

During Sukarno's Guided Economy era and in the early years of the Suharto Government little emphasis was placed on the development

of a viable fishing industry. Soon, however, the Suharto New Order regime realized that failure to develop the traditional, artisanal levels of society might result in future social unrest.

Economic growth which benefitted only the state-sponsored, capitalist groups could be potentially de-stabilizing. By centralizing and consolidating power with patronage groups such as absentee landlords, technocrats, politico-bureaucrats, and urban businessmen, the Indonesian Government would be alienating the poor rural masses as well as middle class intellectuals, teachers, students, and low-level technocrats. In order to maintain political stability, it is necessary for the state to keep people satisfied within the capitalist system. Quiescence of the people is all-important.88

Providing employment opportunities and controlling any radical movements espousing the re-distribution of national wealth represent primary government means for preserving the quiescence of the people. By constructing fisheries infrastructure and providing KIK and KMKP credit and subsidies, the Indonesian Government has encouraged some limited improvements in the social well-being of the artisanal fishing sector. In each of Indonesia's four five-year Repelita plans, employment and distributional equity has been emphasized alongside economic growth. However, while Indonesia's economy has grown dramatically since

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88Ibid., p. 320.

the late 1960s, it is doubtful that the standard of living of the rural Indonesian peasant has improved very much.

Although Indonesia has one of the most non-regressive tax systems in Southeast Asia, most of the suffering caused by government currency devaluations has been borne by the rural, landless peasantry. Such devaluations directed at increasing Indonesia's export volume have benefitted Indonesia's capitalist classes involved in export-oriented industries.

The creation of a state-led economic development scenario has transformed many politico-bureaucrats into owners of capital. Since these political actors have been integrated into the capital accumulation process, the patrimonial checks which originally governed economic development may no longer be effective or efficient. Managers of state-owned enterprises may begin to divert funds away from efficient capital accumulation projects and structures. Corruption may pervade an effective tax revenue-generating system.89 However, these circumstances will not translate into advancements in small scale or artisanal sectors such as the fisheries. This corruption and misguided decision making will only perpetuate a dual economy and the expansion of wider income gaps between rich and poor.

Indonesian development policies appear to have aggravated the

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89Ibid., pp. 324-25.

dualistic nature of the Indonesian economy. Rich, urban classes have adopted modern techniques and lifestyles while the traditional rural peasants continue to labor in subsistence occupations. Benefitting from government economic policies, the wealthy rural and urban classes have increased their standard of living at the expense of poor, rural groups. Cultural and religious interests have deterred the evolution of indigenous entrepreneurs. Traditional fishing groups such as the Buginese, Bataks, Sundanese, Ambonese, and Madurese, who historically traded throughout the Indonesian archipelago, have avoided modernization for fear of undermining religious and cultural values. Unlike Indonesia, Thailand's predominantly Buddhist society encourages entrepreneurial development in all areas of the economy.

Booth and McCawley describe Indonesian Government policies as benign and malign interventionism. Policies are benign in the sense that there are few anti-poverty or industry support programs. Individuals are forced to rely on traditional middlemen and patron-client relationships for support. With the urbanization of Indonesian society and the increase of absentee landlords, traditional patron-client relations are deteriorating. Since no legal redress is available through the legal system, people have little faith in state organizations.90 As a

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90Booth and McCawley, "The Indonesian Economy Since the Mid-60s," p. 18.

result, fishermen are less likely to participate enthusiastically in government development projects.

Malign interventionism such as forced participation in government development programs and increased regulation of private sector activities often do more harm than good. Citizens in rural areas are known to avoid any contact with government officials since these exchanges frequently result in extenuating problems.

Indonesian fishery and agriculture development projects indicate that the government is interested in developing petty bourgeois wealth at the small scale level. Although the development of non-oil exports appears to be the major impetus behind most of Indonesia's fishery development policies, the Indonesian Government does realize the importance of developing the domestic economy as well.

B. State Autonomy and Models of Politico-Economic Development:

The ascension of bureaucratic authoritarian regimes in economically-successful Taiwan, South Korea, and Brazil and the expansion of state power in other developing nations has raised the question of whether democratic systems can effectively develop economies. Scholars such as Samuel Huntingdon in The Crisis of Democracy discuss the proliferation of the bureaucratic authoritarian state in underdeveloped countries bent on

achieving economic growth while sacrificing democratic principles. Countries like Thailand and Indonesia appear to belong in this category.

With the parade of different industrial policies from import substitution to export orientation to structural adjustment programs, there continues to be a need for heavy state intervention in economic matters. However, levels of state autonomy vary cross-nationally, over time, and across sectors and issues. For example, Indonesia's state autonomy is so expansive that "comparisons with North Vietnam and North Korea are in many senses more meaningful than comparisons with the Philippines or Thailand."91 Within Thailand, more state intervention occurs in the heavy industrial sectors (i.e., cement, petro-chemicals) than in the fisheries industry.

Levels of state autonomy in Thailand and Indonesia deviate for a number of reasons. Many factors such as the size of a country's indigenous commercial class (ICC), the timing of industrialization, the extent of state centralization, and ties between state and private elites play a role in these differences.

Thailand's ICC began modernizing and adapting to international market situations long before the ICC in Indonesia. Even today,

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91Richard Robison, "Into a New Phase Where Economic Laws Prevail," Far Eastern Economic Review, May 29, 1986, p. 28.

Indonesia's small ICC remains handicapped by a colonial legacy that has stifled the growth of domestic entrepreneurs. In states with sizable ICCs there is greater potential for this group to lobby or pressure politicians and bureaucrats for pro-private sector policies rather than state interventionism.92 Whereas a large, politically powerful ICC in Thailand was able to discourage increased government intervention in certain areas, the low levels of ICC development in Indonesia paved the way for large scale state interventionism and the proliferation of state-owned enterprises in the Indonesian economy.

Late industrialization in both countries appears to be a major impetus for state interventionist policies. In order to catch up with more advanced nations, states in many underdeveloped countries observe a necessity to sponsor and intervene in the development of many industries. Frequently, private groups in these countries do not have the capital resources to finance expensive industrial projects. Therefore, the government is the only organization well-enough endowed to finance industrial projects. In addition, the government possesses the regulatory and discretionary policies to protect infant industries from foreign competition.

The extent of state centralization may also be a factor in the

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92Ernest J. Wilson, III, "Comparative Politics and Public Enterprises in Africa," Department of Political Science, University of Michigan, Ann Arbor, Michigan, p. 38.

divergent levels of state autonomy in Thailand and Indonesia. Indonesia's strong, centralized state allows for wider control of the economy. "A fragmented state will be hard pressed to take actions independent of private actors. Indeed, private sector penetration is often the source of state fragmentation."93 In actuality, Thailand may be confronted with limited fragmentation due to its healthier private sector. Indonesia, on the other hand, with its weak private enterprise groups, is able to sustain inimitable command over the national economy.

An unremitting relationship between the government bureaucracy and private enterprise groups prevails in Thailand which limits the level and extent of state autonomy. State-society linkages in Indonesia are significant, but the weakness of the private sector vis-a-vis the state appears to be the more dominant factor in the growth of state autonomy. Where the private sector is underdeveloped, it is more likely that state-owned enterprises will fill the void. In the case of Indonesia, a weak private enterprise system, especially in the fisheries industry, has allowed/required state intervention.

In both Thailand and Indonesia, the strengthening of state autonomy has been advocated as necessary to the national security. Communist infiltration and insurgency has been a reality in

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93Richard F. Doner, "The Dynamism and Complexity of State Autonomy," Department of Political Science, Emory University, Atlanta, Georgia, November, 1986, p. 10.

both of these nations. Presently, the Thai government is funding fisheries development projects in villages along the borders with Laos, Kampuchea, Burma, and Malaysia as a means of improving livelihoods and stemming the tide of communist indoctrination. These strategies much resemble the "strategic hamlet" programs the U.S. military supported early in the Vietnam War. The Indonesian Government also believes that the long arm of state intervention will aid in controlling potential build-ups of government opposition such as that fomented by the Indonesian Communist Party (PKI) in the early 1960s.

Furthermore, greater state autonomy is perceived as a protection against the even stronger threat of foreign capital intervention. The regulatory and descretionary policies such as fishing joint venture regulations are used by the state to restrict the quantity of foreign capital influx to a manageable, unthreatening level. During the 1960s, the Thai Government relaxed many of its policies are foreign investment to encourage broader growth of its private sector. This represented a sacrifice of traditionally tight government control in favor of increased economic growth. Meanwhile, while the Indonesian Government granted some concessions to foreign capital, it continues to maintain an unrelenting grip on the national economy. Therefore, in Thailand and Indonesia, the state is perceived as the only guardian of national interests in the obstructing uncontrollable foreign capital intervention.

The economic success rates of the newly-industrialized countries (NICs) (i.e., Taiwan, South Korea, Nigeria, Brazil, Singapore), all of which were led by bureaucratic authoritarian regimes utilizing a series of austere policies and programs, lend these states as more practical models to lesser developed countries. According to these models, economic development could not have been achieved without tough monetarist policies and a high degree of state intervention in the economic sector. Therefore, besides protecting the state from internal and external political and economic threats, the bureaucratic authoritarian state has also commandeered a remarkable economic expansion in several nations.

Despite the existence of powerful governments in the NICs, it is doubtful that this success would have been achieved without proper "orientations" and state "capacities." A bureaucratic authoritarian state which practices a high degree of economic intervention does not insure <u>apriori</u> that a successful economy will be the result. State orientations "refer to the institutionalized dispositions of the state with regard to issues and forces affecting development."94 Therefore, the level of state institutional development must meet the demands placed on it by political and economic complications confronting national development. The state's capacities are embodied in its ability to formulate and implement coherent policy and the acquisition of

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94Ibid., p. 19.

necessary expertise.95

Each developing nation has its own set of circumstances and problems which require significant adaptations of models proved successful in other countries. Goran Hyden has proposed the notion of the "trained capacity" of Third World policy makers. Many of the policy makers in less developed countries have spent time in academic, business, or maybe even government institutions of the industrialized nations.96 As a result, they develop very internationalized perspectives of economic development policy, while being scantily versed in the economic situations of their own countries.

Hyden indicates that these policy makers, after rejoining the governments of their respective countries,

> ...promote images of the peasants as willing collaborators with government. On such assumption they are able to sell their agricultural development policies to those who provide finance. Western socialists often engage in a similar approach. In the context of their theory, the peasants are revolutionary and the bourgeoisie the main stumbling block to a more far reaching transformation of society. Most of this is wishful thinking, if not downright ignorance.97

95Ibid. (See also Alfred Stepan, The State and Society: Peru in Comparative Perspective, {Princeton, N.J.: Princeton University Press, 1978}, p. 238).

96Higgot, Political Development Theory, (New York: St. Martins Press, 1982), p. 96.

97Goran Hyden, Beyond Ujaama in Tanzania: Underdevelopment and an Uncaptured Peasantry, (London: Heinemann, 1980).

Indonesia and Thailand may or may not have the state orientations and capacities to lead economic development according to the model of the NICs. New global economic changes may have increased the requirements necessary for states to develop in this manner. The NICs all achieved their incredible growth rates during a period in which the world economy was booming. Presently, with most of the world's national economies in mild recession, export-orientation industrialization will not necessarily lead to economic miracles. Rising protectionism and weak markets in the industrialized countries do not offer much promise for increased imports from developing nations.

Notwithstanding the aforementioned successes of the highly-interventionist NICs, there are also several debilitating effects of greater state autonomy. One of the most obvious of these negative consequences is the "crowding out" and stifling of private sector operations that large state-owned enterprises often cause. In Indonesia, powerful state-owned enterprises, though important to encouraging economic development in neglected areas, also contribute to the slow progress of Indonesia's indigenous commercial class.

Without any domestic private or foreign competition, state-owned enterprises may expand into cumbersome, inefficient organizations which utilize coercion and cooptation to maintain their economic

legitimacy. Private groups such as artisanal fishermen in Indonesia may be forced to participate in programs (i.e., NES) against their will or good financial judgement. These government institutions may "unwittingly provoke precisely the kinds of political opposition they seek to prevent and even provide them with ready-made channels of opposition."98

State-owned companies such as Pertamina in Indonesia have historically been afflicted by poor management practices, unskilled leadership, and inefficient production methods. Monopolization of sectors of the economy through cooptation of traditional entrepreneurs or force leads to the development of inefficient production, management, and marketing techniques. Among the African nations, International Monetary Fund (IMF) and UNIDO surveys have determined state-owned enterprises to be dissipators rather than contributors to national capital accumulation and economic development.99 During the 1960s, the ingress of foreign capital into Thailand due to new government policies, demoralized many small and medium-sized firms which were unable to compete with foreign enterprises.

Governments may unwittingly underestimate the importance of developing the artisanal and tertiary sectors of the economy.

98Robert Bianchi, "Interest Group Politics in the Third World," Third World Quarterly, 8:2, April, 1986, p. 510.

99Wilson, p. 12.

Although large state-owned enterprises may be exemplaries of economies of scale, they are soon undermined bulky structures and over-extended operations. Small and medium-sized firms often prove more efficient purveyors of economic growth. In addition, "small and medium-sized firms can accumulate valuable product-related expertise critical for host country bargaining with foreign firms."100

By encouraging and supporting the development of small commercial and industrial ventures, governments in these countries might correct some of the dislocations created through the unrestrained growth of state-owned enterprises. Without sufficient competition, state-owned enterprises may reduce production and increase prices at the cost of greater income inequality. Declining living standards and greater income inequality provides fuel for social unrest. By limiting the expansion of state enterprises and promoting development of small and medium-sized commercial and industrial sectors, governments such as the Suharto regime in Indonesia might better preserve their national legitimacy.

Failure to develop a substantial private sector has further divided state from the private sector in Indonesia. The peasantry as represented by artisanal fishermen and farmers avoids the government as a undesirable nuissance. Alienated by government

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100Doner, p. 25.

policies, Chinese businessmen and indigenous entrepreneurs, respond by transferring investment capital elsewhere. NICs like South Korea and Taiwan achieved their massive industrial growth with aid from a prosperous agricultural sector. Economic growth in these countries was broad-based, not unbalanced and dualistic development so evident in Indonesia and Thailand.

VI. CONCLUSIONS

By examining and comparing Thai and Indonesian fisheries policies, this paper was intended to shed greater light on overall national development policies and the ideologies and paradigms which guide them. Although fisheries policy represents only a small sector of complex, multifarious development policies, this study indicates that it is integrally-involved and concurrently operative in respect to the national ideologies of these two bureaucratic authoritarian states. Therefore, fisheries policies, for the most part, appear to reflect national development policies as well as being in accordance with the goals of the state elite.

Notwithstanding the many similarities between Indonesia and Thailand, the distinct differences in styles of bureaucratic state rule and their manifestation through fisheries policies provide a useful contrast. By investigating the means through which the Thai and Indonesian Governments resolve and adapt to

complications within the fisheries industry, it is possible to gain a clearer insight into how the state responds to other political and economic situations as well as the overall state philosophy.

NICs such as South Korea and Brazil have set development models featuring high levels of state intervention and corporatism. However, while these strategies led to tremendous economic success in both countries, the outcome has been quite dissimilar. Whereas South Korea has developed a fairly well-balanced economy which boasts strong agricultural and industrial sectors, Brazil's rapid growth only heightened the disparities between a burgeoning middle class in the south and poor, rural peasants in the northeast.

Such comparisons appear useful in examining Indonesian and Thai potentials for evolving into the "capitalist enterprise states" the national elite seem so earnestly committed to. Does the world economy favor the development of more NICs? Presently, the outlook appears grim. As a result, these countries and the regimes that run them may realize that greater emphasis on developing the small scale and artisanal layers of society might be prudent in the long run. The development of basic, labor-intensive resource sectors (i.e., fisheries and agriculture) which employ relatively large portions of the population might provide for a better means of regime maintenance.

The fisheries sectors in Thailand and Indonesia present optimistic possibilities for the future. It is very likely that the fishing industry will continue to advance and prosper. However, government policies will play a crucial role in the type of development the industry undergoes. Government policies will determine if the fisheries sector in these countries develops into a highly-capitalized sector dominated by large scale private (in Thailand) and state-owned (in Indonesia) enterprises, or, with the assistance of government investment and technical advice, a well-integrated industry featuring a healthy small scale sector augmented by larger, efficient firms.

APPENDIX A:
Abstract of Thailand's Joint Venture, Profit-Sharing Agreement with the Indian Government.

The eight points of this joint venture, profit-sharing plan include:

1) Negotiations will be held on a government-to-government basis, with an agreement enforcement period of three years.

2) The Thai Government will pay a fee to the Indian Government based on the number of Thai trawling vessels (100-150 GRT) permitted in the Indian EEZ.

3) The fee will be paid in two stages. Half of the fee will be paid prior to admittance of Thai vessels into the EEZ, with the remainder to be paid after six months.

4) The Thai Government will require that 20 percent of vessel crews be Indian citizens. This crew percentage will be increased by ten percent each following year the agreement is maintained.

5) Three Indian crewmen will receive training at the Southeast Asian Fisheries Development Center (in Thailand) each year.

6) If the agreement is successful, Thailand will pursue the operation of purse seining vessels in the Indian Ocean.

7) Thai fishermen wishing to participate in the joint venture program must pay one million baht to the Indian Government through Thai Government authorities.

8) The Thai private sector will be permitted to seek permission to establish a fishmeal (by-catch) processing plant on the Indian coast.1

1"Thailand Looks Out for Foreign Partners; Eight-Point Joint Venture Plan," Fishing News International, July, 1982, p. 72.

APPENDIX B:
Main Tenets of Thailand's Investment Promotion Act of 1977.

1) Guarantees

-- Protection against nationalization, competition from new state enterprises, price controls, and provision of permits to export.

2) Protective measures

-- Import bans on competitive products.

-- Imposition of service charges on foreign products (up to 50 percent of C.I.F. value) for a period of not more than one year.

3) Permissions

-- To hire foreign technicians and experts.

-- To own land.

-- To transfer or remit foreign currency abroad.

4) Tax incentives

-- Exemption or 50 percent reduction of import duties and business taxes on imported machinery.

-- Reduction of import duties and business taxes of up to 90 percent on imported raw materials and components.

-- Exemption from corporate income taxes for three to eight years with permission to carry forward losses and deduct expenses for up to five years.

-- Exemption for up to five years of withholding tax on goodwill, royalties, and fees remitted abroad.

-- Exclusion from taxable income of dividends derived from promoted industries during income tax holidays.2

2G.J. Crough, "The Development of the Tuna Industry in Thailand," Honolulu, Hawaii: Pacific Islands Development Program, East-West Center, April, 1987, p. 8.

APPENDIX C:
Abstract of the Indonesian Government's Joint Venture Fisheries Policy as of 1984.

1) Fishing operations cannot compete with small scale and traditional fishermen.

2) Prospective investors must be legitimate companies.

3) Prospective investors must have the capability to improve the foreign exchange standing of the nation either by decreasing imports or increasing exports.

4) There is no ceiling on capital investments, but investments must exceed the minimal amount of $2.5 million.

5) Ownership share ratios:
   a. At the outset of the agreement, Indonesian partners must hold at least 20 percent of ownership.
   b. Five years after commercial production begins, the Indonesian share must be increased. By the tenth year, the Indonesian partner(s) should hold a 51 percent or more ownership in the operation.

6) The duration of all fisheries agreements is fifteen years. Any extensions are subject to government approval.

7) Investment applications submitted to the Investment Coordinating Board should include the following information: proposed coordinate points of fishing grounds, species to be caught, fishing gear used, type and size of vessels, vessel design, location of base port, and annual investment plan.

8) Employment of non-Indonesians (i.e., technicians, experts) must meet Ministry of Manpower and Transmigration regulations (A.O. No. 92 KEM/MEN 1978). As part of the joint venture agreement, Indonesians must be trained to replace foreign nationals.

9) The construction of fishing vessels in Indonesia must comply with Indonesian laws and regulations.

10) All fishing vessels purchased overseas cannot be less than 100 GRT and cannot have been constructed more than five years prior to purchase. Vessels purchased overseas must be paid for in cash.

11) All vessels must be the property of the joint venture company, registered as an Indonesian vessel, and flying the Indonesian flag.

12) Trawlers and purse seining vessels are forbidden except in cases involving special Indonesian Government-to-foreign government agreements.

13) Factory ships (including floating storage barges) are forbidden.

14) All fish processing plants should be supported with sufficient raw material. Raw material destined for fishmeal plants should waste material, preferably from the plant's own catch.

15) Fields of fish investment for joint ventures are stipulated by the list of relations issued by the Investment Coordinating Board.

16) All new fishing joint venture operations are limited to Indonesia's EEZ outside of the nation's territorial seas (12 miles).3

3"Great Developments in Indonesian Fisheries," AFZ International, March, 1984, pp. 16-17.

BIBLIOGRAPHY

1. "A Profile of Indonesian Fisheries," Bay of Bengal News, September, 1983.

2. Arief, Sritua. The Indonesian Economy, Jakarta: Sritua Arief Associates, 1978.

3. Banerjee, Tapan. "Indonesian Fisheries- A Status Report," U.S. Agency for International Development (AID), American Embassy, Jakarta, August, 1982.

4. Bennett, Douglas, and Sharpe, Kenneth. Transnational Corporations Versus the State. Princeton, N.J.: Princeton University Press, 1985.

5. Bianchi, Robert. "Interest Group Politics in the Third World," Third World Quarterly, 8:2, April, 1986.

6. Boely, T. "Overview of Maritime Fishing in Indonesia," La Peche Maritime, November, 1985, (translated from French).

7. Booth, Anne. Labour Absorption in Agriculture. New York: Oxford University Press, 1985.

8. Booth, Anne, and McCawley, Peter, eds. The Indonesian Economy During the Soeharto Era. New York: Oxford University Press, 1981.

9. Chongritthawon, Kawi. "Paper Views Contacts With South Pacific States," The Nation, August 24, 1986, (from Foreign Broadcast Information Service {FBIS}).

10. Chung-kuo Hsueh-ch'an (China Fisheries Monthly), May 10, 1984, (summary from U.S. Department of Commerce News Service).

11. Collier, William L., etal. "Income, Employment, and Food Systems in Javanese Villages," Athens, Ohio: Ohio International Studies, Southeast Asia Series, No. 44, 1977.

12. Crough, G.J. "The Development of the Tuna Industry in Thailand," Honolulu, Hawaii: Pacific Islands Development Program, East-West Center, April, 1987.

13. Deyo, Frederic. Dependent Development and Industrial Order. New York: Praeger, 1981.

14. _____ . Political Economy of the New Asian Industrialism. Ithaca, New York: Cornell University Press, 1987.

15. "Diplomat Forsees Thai Declaration of 200-Mile Zone--Comments of Dr. Arun Panupong." Nation Review, March 25, 1977, p. 1, 12.

16. Doner, Richard F. "The Dynamism and Complexity of State Autonomy," Department of Political Science, Emory University, Atlanta, Georgia. Prepared for the Annual Meeting of the International Studies Association, South, November 6-8, 1986.

17. "Effects of 200-Mile Fishing Zone Examined." Bangkok Domestic News Service, December 16, 1977, (from FBIS).

18. Fernandez, M. "Developing Fisheries in Thailand," Infofish Marketing Digest, No. 1, 1985.

19. "Focus on New Ports in Indonesia's Development Plan," Fishing News International, May, 1985.

20. Girling, John L.S. Thailand: Society and Politics. Ithaca, New York: Cornell University Press, 1981.

21. "Great Developments in Indonesian Fisheries," AFZ International, March, 1984.

22. Higgot, Richard A. Political Development Theory, New York: St. Martins Press, 1982.

23. Higgot, Richard A., and Robison, Richard, eds. Southeast Asia. London, Boston: Routledge & Kegan Paul, 1985.

24. Huntingdon, Samuel. Political Order in Changing Societies. New Haven, Ct.: Yale University Press, 1968.

25. _____, etal. The Crisis of Democracy. New York: Columbia University Press, 1975.

26. Hyden, Goran. Beyond Ujaama in Tanzania: Underdevelopment and an Uncaptured Peasantry. London: Heinemann, 1980.

27. "Incentives Prompt Fishermen to Risk Jail Overseas for Territorial Waters Violations," Bangkok Post, September 9, 1982, (from FBIS).

28. International Bank for Reconstruction and Development. "World Bank Paper on Harvesting the Waters: A Review of Bank Experience with Fisheries Development," Item no. 4 (a), (Indonesia and Thailand chapters), for the Fishery Development Donor Consultation, Paris, October 13-15, 1986.

29. Katzenstein, Peter, ed. Between Power and Plenty. Madison, WI: University of Wisconsin Press, 1978.

30. Kwong, Virginia. "The Indonesian Fisheries Sector," Infofish Marketing Digest, June, 1984.

31. McDonough, Peter. Power and Ideology in Brazil. Princeton, N.J.: Princeton University Press, 1981.

32. Moore, Gerald. "Coastal State Requirements for Foreign Fishing," Legislative Study No. 21 (Rev. 1) (preliminary edit.), United Nations Food and Agriculture Organization (UNFAO), Rome, 1983.

33. Myint, Hla. "The Inward and Outward-Looking Countries of Southeast Asia." in Malayan Economic Review, XII (1), April, 1967, reprinted in Hla Myint, Economic Theory and the Underdeveloped Countries. London: Oxford University Press, 1971.

34. "Other Countries Operations in EEZ Considered," Business News, (Jakarta), March 24, 1986, (from FBIS).

35. Palmer, Ingrid. The Indonesian Economy Since 1965. London: Frank Cass, 1978.

36. Prachuap. "Territorial Waters, Other Problems Plague Fishing Industry," Siam Rat (Thailand), April 20, 1982, (from FBIS).

37. "Prem Addresses Fishery Seminar 5 June," Bangkok Domestic News Service, June 6, 1987, (from FBIS).

38. "Proposals to Ease Fishermen's Plight," The Nation, September 5, 1983.

39. Robison, Richard. "Into a New Phase Where Economic Laws Prevail," Far Eastern Economic Review, May 29, 1986.

40. Samson, Elizabeth D. "National Marine Interests in Fisheries in Southeast Asia," Quezon City, Philippines: Fishery Industry Development Council, July 25, 1983.

41. Shirley, Mary T. Managing State-Owned Enterprises. World Bank Staff working papers No. 577. Washington, D.C., 1983.

42. Stepan, Alfred. The State and Society: Peru in Comparative Perspective. Princeton, N.J.: Princeton University Press, 1978.

43. "Territorial Waters Problems, Depletion of Fish in Gulf--Interview with Thai Directorate General of Fisheries," Matichon, April 9, 1984, (from FBIS).

44. "Thai Fish Crisis," World Fishing, January/February, 1982.

45. "Thai Fishing Affected by Law of Sea Discussions," Bangkok Domestic News Service, October 19, 1976, (from FBIS).

46. "Thailand: Fisheries in Decline," Eurofish Report, August 30, 1984.

47. "Thailand Looks Out for Foreign Partners; Eight-Point Joint Venture Plan," Fishing News International, July, 1982.

48. "Thailand: Prospects and Policies," Economist Intelligence Unit, Special Report No. 161, 1984.

49. Turniati, Sri. "Indonesia: Symposium on Fishing Industry." Staff of Sub-Directorate of Identification and Programme Development, Directorate General of Fisheries, Department of Agriculture, Jakarta, November 12-18, 1985, presented at Tokyo meeting.

50. United Nations Industrial Development Organization (UNIDO) "The Fisheries Industry in Selected Asian Countries (Indonesia and Thailand chapters), prepared for UNIDO by Infofish (Kuala Lumpur, Malaysia). Presented at the Global Preparatory Meeting for the First Consultation on the Fisheries Industry, Mexico City, Mexico, January 26-29, 1987.

51. "Urgent Measures Needed to Save Fishing Industry," Nation Review (Thailand), Section II:Business, p. 11.

52. U.S. Department of State, "GOI Encouraging Development of its Fishing Sector," U.S. State Department cable, American Embassy, Jakarta to U.S. Secretary of State, Washington, D.C., October 28, 1986.

53. U.S. Department of State, "Southern Thai Fisheries: A Two-Year Update," U.S. State Department cable, American Consulate, Songkhla, Thailand to U.S.Secretary of State, Washington, D.C., December 2, 1986.

54. Wilson, Ernest J., III. "Comparative Politics and Public Enterprises in Africa," Department of Political Science, University of Michigan, Ann Arbor, Michigan.

55. Wyatt, David K. Thailand: A Short History. New Haven, Ct.: Yale University Press, 1984.

56. _____. The Politics of Reform in Thailand. New Haven, Ct.: Yale University Press, 1969.