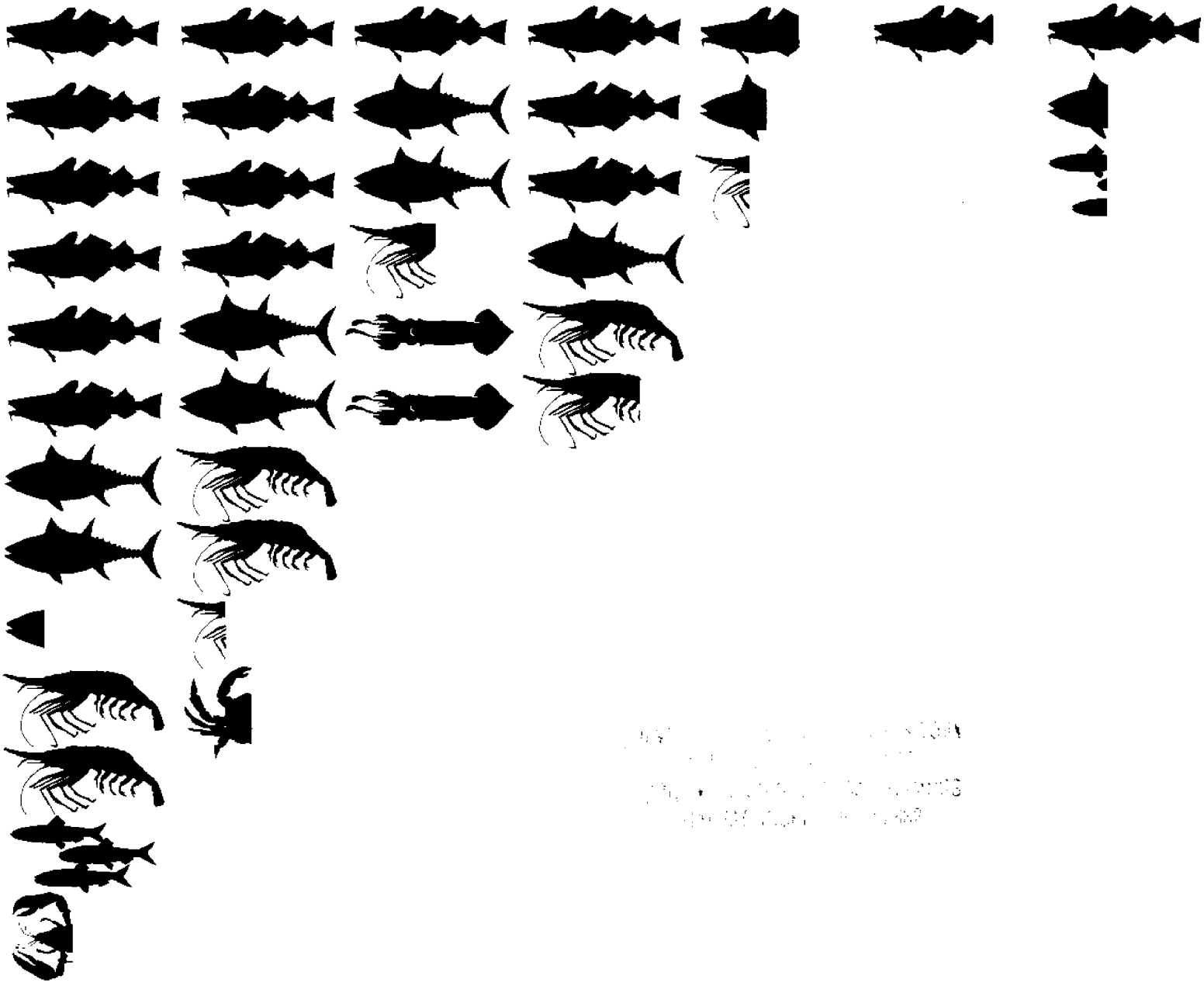
INTERNATIONAL JOINT VENTURES IN WORLD FISHERIES

Their Distribution and Development

TECHNICAL REPORT

Vladimir Kaczynski and Dominique LeVieil



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Cover Illustration The cover illustration represents an approximation of the distribution figures given in Table 1 (page 5). Each species figure represents 10 ventures for that species.

Key Words 1. Joint ventures 2. International cooperation - fisheries 3. World fisheries 4. Marine resource economics

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Background

In recent years, international joint venture arrangements in world fisheries have increased considerably, both in number and in economic importance. The reasons for this increase are varied. The extension of national jurisdictions over what were once international waters has resulted in restricted access to marine resources. A new international economic order is forming with the emergence of developing or "Third World" nations. Many of these nations have rich marine resources, but they do not have the necessary economic and technological means to exploit them (capital, vessels, infrastructure, etc.). Some industrial coastal countries also lack sufficient existing or potential markets for their marine resources. And, finally, there is a growing demand for fish food worldwide.

Traditional long-range fishing nations who now find themselves without access to their accustomed fishing grounds, as well as developed and developing coastal nations that want to exploit their recently acquired marine resources, governments and private industries motivated both by political and economic needs, are looking to joint venture arrangements as potential solutions to their problems.

Definition

A joint venture is an association of two or more partners who share the risks and benefits of a commercial--or in some cases, nonprofit--venture. In world fisheries, such partnerships typically involve private or government interests of a host country (usually where the base of operations is located) and a foreign partner. In most instances, the host country is the one with the resource, while the foreign partner is likely to be a long-range or other fishing nation with an established and technologically advanced fishing industry.

The joint venture arrangements are generally of two main types:

1. *Contractual ventures*--temporary or single purpose arrangements, such as survey projects or experimental operations that may precede establishment of an equity arrangement.
2. *Equity arrangements*--jointly owned companies that are formed to conduct regular ongoing commercial activities

Contractual joint ventures, although they may be short lived, may still effectively integrate foreign and local interests. For example, a joint fishery research operation might be arranged in which a foreign partner contributed personnel and vessels in

exchange for partial financing, fuel, or other support (such as use of port or repair facilities) from the host country.

Most joint ventures, however, are equity arrangements, commercial fishing companies which play an important role in world fisheries. In either case--contractual or equity--cooperative arrangements between partners may differ greatly from one operation to another. Some partners may be fully involved in the research and design of a project as well as its execution. In such cases, both partners are likely to be fully integrated in the venture and share equally the benefits and risks of their involvement. Other ventures may involve more simplified cooperative arrangements, such as a purchasing agreement between local fishermen and foreign processing vessels.

The Joint Ventures Study

In this analysis of international joint ventures, we have concentrated on certain interrelationships that are inherent to their distribution and development. They are--

- Resource abundance and the location of the venture
- Economic status of host and foreign partners (developing or developed) and their willingness to enter into cooperative fishery arrangements
- The ability of a coastal nation to harvest, process, and consume its biological resources
- The joint venture partners interest (or lack of it) in export opportunities in the world fish commodities market

Methods

This report describes international joint ventures developed mostly in the mid to late 1970s. Included are ventures that have been terminated as well as those that are still in the process of being formed. The joint ventures data are summarized according to

- location - number and distribution of host and foreign partners
- target species
- distribution according to economic status--western developed, developing, or centrally planned economies

Data Source

About 370 international cooperative arrangements in fisheries have been analyzed in this paper, although about 500 joint ventures in world fisheries have been identified to date. The data about these ventures

were taken from published sources, primarily internationally circulated journals and reports. It was not possible to consider extensively all existing ventures because of the quickly changing patterns in organizational arrangements, and the many different means of cooperation in fisheries.

A complete summary of the joint ventures data considered is given in Appendix 1. More detailed information about these and other ventures is stored in specially designed computer files.

The Joint Ventures Computer Files

To provide a quantitative base for this study, an interactive computer program was designed to store and manipulate the data (Lynde and Lindsay, 1979). The purpose of the program is to allow display of various possible interrelationships in world joint venture activities.

The data are coded to allow retrieval based on the following categories:

- name of venture
- location of base of operations
- capital and currency involved
- year of establishment and dissolution
- name of foreign company
- percentage of shares held by host country
- target species
- fishing region
- average catch rates
- number and type of vessels
- description of onshore facilities
- processing capacity
- other information
- references

The degree of detail on individual ventures varies according to the data available. The system has been planned, however, so that new data can be entered as they become available.

More complete description of the computer program, a list of variables, a sample session, and several sample case studies are provided in Appendix 2.

Distribution of International Joint Ventures

Host and Foreign Countries Involved

The largest concentration of joint ventures is in the coastal nations of the central and south Atlantic (Fig. 1), where about 140 such companies are located. Other significant areas of host activities are the Middle East and Southeast Asia, and Oceania--the waters around Australia and Micronesia.

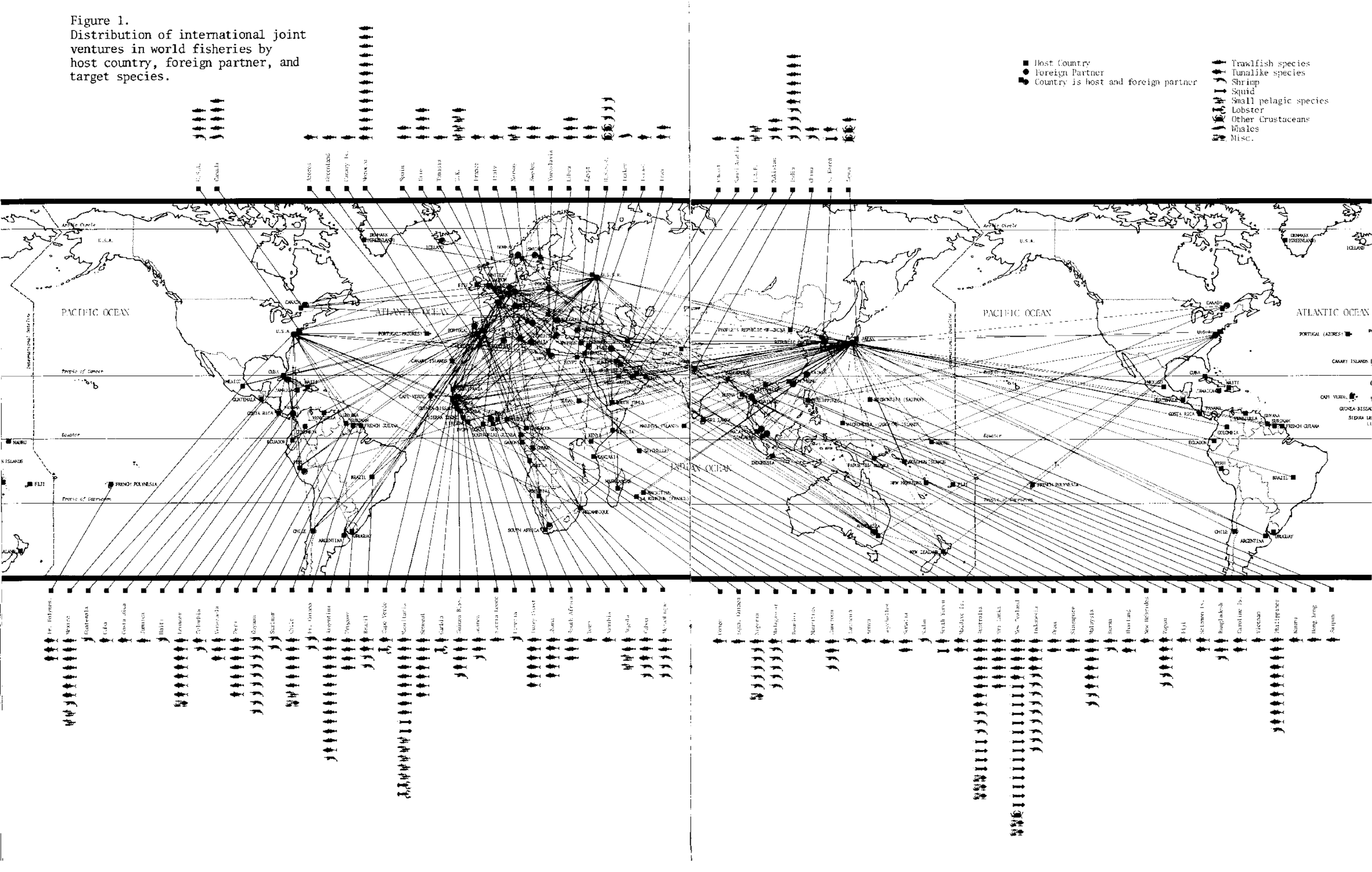
Most of the foreign partners are concentrated in Southeast Asian countries--primarily Japan and the U.S.S.R. (The Soviet Union is here considered part of Asia since the important part of its marine fisheries activities are located along its Asian coast.) Table 1 gives a breakdown of host and foreign activities by region and target species, and Appendix 1 provides a more detailed summary of joint venture activities.

Table 1. Distribution of joint ventures by region and target species

	Trawl	Tuna	Shrimp	Squid	Small Pelagic	Whales	Lobster	Miscellaneous Crustaceans	Miscellaneous Other	Total
Africa	58	23	22	2	8	--	4	--	--	117
	5	--	2	--	3	--	--	--	--	10
Middle East	36	20	23	2	2	--	--	4	--	87
& Asia	70	41	45	21	1	2	1	5	3	190
Oceania	12	17	5	18	--	--	--	1	5	58
	3	--	3	--	--	--	--	--	1	7
South	31	12	17	--	1	--	--	--	2	63
America	--	--	--	--	2	--	--	--	--	2
Central	6	4	3	--	2	--	--	--	--	15
America	4	--	--	--	--	--	--	--	--	4
North	7	1	--	--	--	1	--	--	--	9
America	2	19	11	--	3	--	--	--	--	35
Europe	12	3	--	--	4	1	--	--	--	20
	77	20	9	1	8	--	3	--	3	121
Totals	162	80	70	22	17	2	4	5	7	369
	162	80	70	22	17	2	4	5	7	369

Host
Foreign

Figure 1.
Distribution of international joint ventures in world fisheries by host country, foreign partner, and target species.



Africa There are 117 identified joint ventures hosted by African countries--about one-third of all ventures in world fisheries. Of these, 94 are located along the Atlantic coast; the rest are distributed along the Mediterranean, Red, and Arabian Seas, and the western part of the Indian Ocean.

The Atlantic coast host countries are mostly concentrated in northwestern Africa. Mauritania and Morocco alone host at least 14 ventures each, which involve harvesting, processing, and marketing activities. Senegal and Nigeria are also active host countries; each running seven or more international companies.

Japan is the most frequent foreign partner in African joint ventures with 27 affiliations. Other important foreign partners in African ventures are France, with 21; Spain, 9; U.S.S.R., 8; and Portugal, 8.

Middle East and Southeast Asia Nations in the Middle East and Southeast Asia host 87 joint ventures. Of these, the most active host nations are Indonesia, 13; the Philippines, 11; India, 10; Malaysia, 8; and the U.S.S.R., 5.

Again, Japan is the leading foreign partner in this region. At least half of all ventures located in the Middle East and Southeast Asia involve Japanese interests. In addition, in all joint ventures worldwide, Southeast Asian countries (primarily Japan and the U.S.S.R.) are the most active foreign partners, with involvement in 190 ventures.

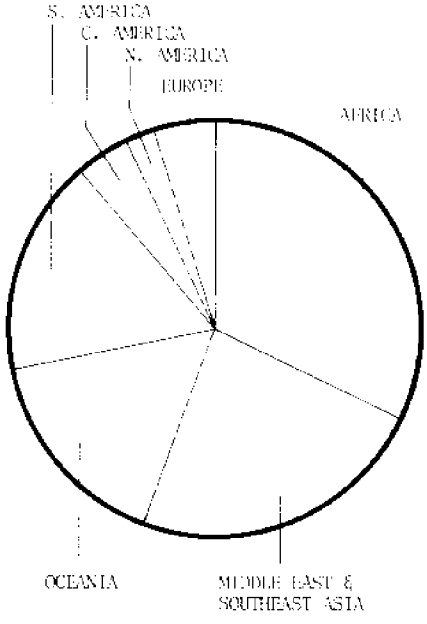
Oceania The growing number of joint ventures in Oceania have been observed in recent years as a result of extended national jurisdiction, mainly by Australia and New Zealand. In 1971 there were 58 joint ventures negotiated or in operation in Oceania. In Australia and New Zealand alone, about 40 ventures have been established since 1978.

More than half of the total number of joint ventures in Oceania have been organized with Japanese fishing companies. Many significant foreign partners in this area are from other long-range fishing nations. Most of these ventures are for one year only. Some ventures were dissolved or suspended when Australia and New Zealand applied economic sanctions against Soviet fisheries in their waters.

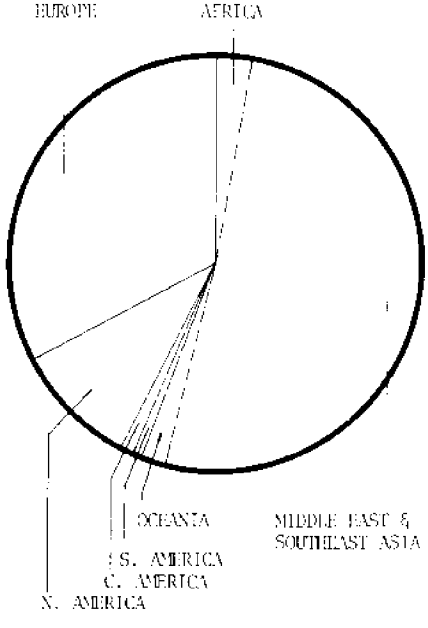
South America South American nations are increasingly active in joint venture activities, with 63 international ventures, mostly along the Atlantic coast. Argentina, with its rich Patagonian shelf fishery, hosts at least 14 such ventures, and the number here is growing. Ecuador, Guyana, Chile, and Peru, are also active host countries, with more than 7 ventures each.

Spain is the main foreign partner in Argentinian ventures, along with the Federal Republic of Germany, and Japan. Japan is participating in 18 South American ventures, and South Korea is becoming in-

Host



Foreign



creasingly active in Chile and Argentina.

Central America Central American nations host few joint ventures at present. But there is a growing emphasis in this area--particularly in Mexico--on international cooperation in marine resource development of the coastal zones of the eastern central Pacific, the Gulf of Mexico, and the Carribean Sea. Mexico is the most active host country, accounting for 10 of the 15 ventures in this region.

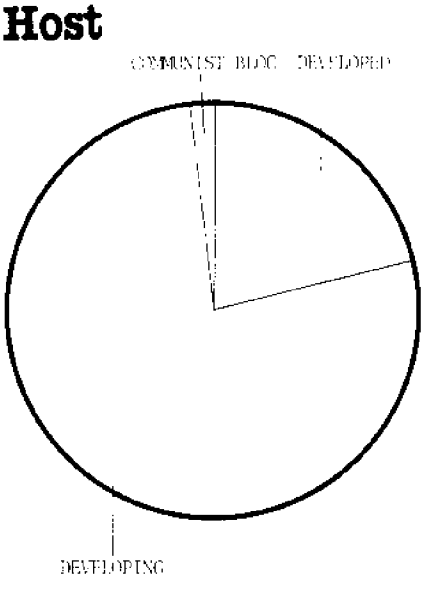
North America and Europe The fewest joint venture host countries are located in North America and Europe. Although European countries host few ventures, they are leading foreign partners.

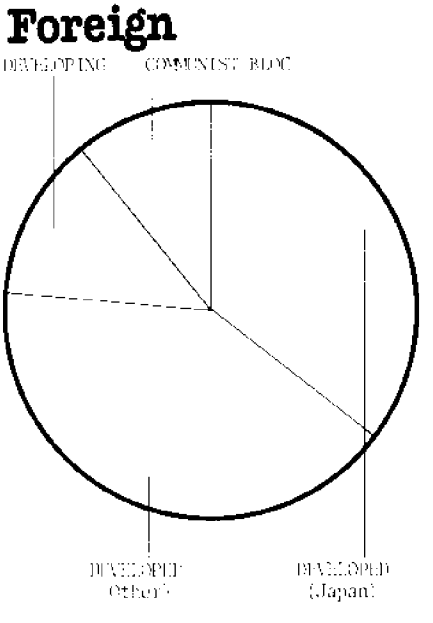
Recent Expansion Trends

Of the 369 joint ventures shown on the distribution map (Fig. 1), 287 of them are established in developing nations. There are only a few cases in which foreign partners in such ventures come from developing countries: the overwhelming majority of foreign partners are from developed nations and the Soviet bloc countries. (The terms "developing" and "developed" are understood according to United Nations criteria.)

Japanese Activities Japan is the leading foreign partner in joint ventures worldwide. Of the 190 ventures involving Middle East and Southeast Asian countries as foreign partners, Japan accounts for 127 of these affiliations. However, other data (for example, from the Fisheries Agency of Japan) show that up to 173 such companies were operating in 1976. These corporations, formed between Japanese interests and host country companies or government agencies, controlled over 203 ventures involved in all fields of the fishing industry.[1]

Soviet Bloc Activities Soviet bloc nations, particularly the U.S.S.R., Poland, Bulgaria, and Cuba, recently have been very active in joint venture efforts. In adopting a joint venture policy, these countries have departed significantly from their former approach to ocean resource use, which was dominated by an autarchic concept of long-range, expeditionary, and self-supported operations. The U.S.S.R., in 1979, ran or was a party with other nations in at least 25 international fishery agreements. Most of these joint ventures are in the developing countries of Africa, Southeast Asia, and the Middle East. However, the U.S.S.R. has also established some joint fishing operations with developed nations, such as the United States, Australia, Japan, Spain, and ECC (European Common Market) countries.





[1]Survey of Foreign Fisheries, Oceanographic and Atmospheric Literature. Department of Commerce, NOAA, NMFS, Washington, C.D., No. C-20, 1977.

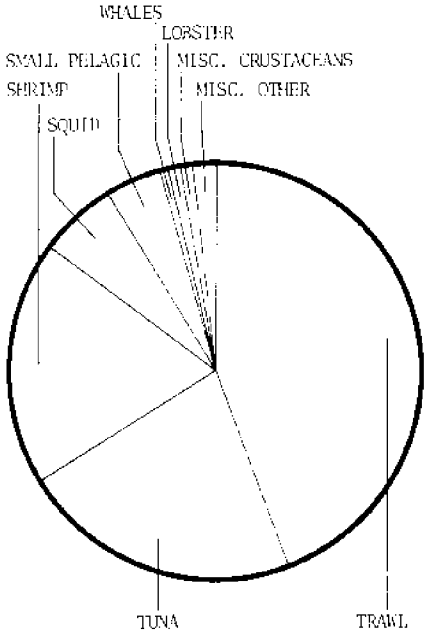
Poland has expanded its joint venture operations in developing nations (Peru, Nigeria, Philippines, India), as well as with developed ones (Sweden, Canada, Australia). These growing activities of Soviet bloc nations have become more pronounced since their long-range fleets were sharply restricted by coastal nations whose fishing grounds were originally developed by eastern European fleets during the freedom of fisheries era.

Other Foreign Activities France, Spain, Portugal, and Italy are also very active foreign partners, mainly in Africa. The South Koreans show a growing interest in the South Pacific, where they have recently established joint ventures in New Zealand and Australia.

Target Species

The target species identified in the joint ventures data are classified according to the following categories:

trawlfish: cod, hake, ocean perch, flatfish, and other groundfish species
tuna and tunalike species: skipjack, yellowfin tuna, king mackerel, bonito, marlin, swordfish, butterfly kingfish, etc.
shrimp: shrimp and prawns
squid: loligo squid, illex and others
small pelagic species: herring, capelin, anchovies, sardines, etc.
whales
lobsters
miscellaneous crustaceans: all species of crab and any other crustaceans except shrimp and lobster
miscellaneous other: species that do not fall into any of the above categories, plus molluscs, kelp, fish ranching



Target Species

Trawlfish species are the principal target of joint ventures: 162 ventures are harvesting and processing these species. Other important target species are those that are considered the highly valuable species--mainly tuna, shrimp, and crab.

Trawlfish Data about the volumes of catch in these ventures are scarce, but some ventures are reaching catch levels that surpass the host country's efforts to harvest these same species on their own. In Argentina, for example, joint ventures with the Federal Republic of Germany, Spain, and Japan contributed to the rapid development of the Patagonian shelf hake fishery. In the mid 1970s Argentinian overall catch did not surpass 300,000 metric tons (mt) per year. But by 1977 the catch had grown to 393,000 mt; in 1978 it was 480,000 mt; and for 1979, the government was projecting a catch of 615,000 mt.

Foreign partners and their markets absorbed the growing volume of joint venture production in Argentina. In 1978, about 80% of the total processed fish was

exported, mainly to Spain, Japan, Federal Republic of Germany, and the United States.

In Peru, a Peruvian-Polish joint venture caught about 95,000 metric tons of Peruvian hake during 1978. This volume may increase further as another planned Peruvian-Polish joint venture begins operating.

Tunalike species In tuna and tunalike species fisheries, there have been over 80 joint ventures established. About half of these were carried out by Japan, mostly in Oceania, Southeast Asia, and Africa.

African nations--Ivory Coast, Senegal, and Ghana--individually host the largest number of tuna ventures. These involve Japan, the United States, France, and other developed nations. U.S. Companies are involved in at least ten joint ventures for shrimp and tuna in India, Nigeria, and Guyana.

Shrimp In joint shrimp fishing ventures, Japan maintains at least 41 ventures--mainly in Southeast Asia, South America, and Africa--accounting for over 60% of all world shrimp joint ventures. After the Soviet Union imposed restrictions on Japanese fisheries in the Okhotsk Sea and Kamchatka waters, Japanese fishing companies established seven seasonal joint venture operations with the Soviet government. These ventures harvested and processed 4650 tons of crabs, 1270 tons of shrimp and 12,000 tons of pollock.

Economic Aspects of Joint Ventures Development

Factors Stimulating Development

There are several factors that may motivate countries to seek international cooperation in the use of marine resources.[2] From a global perspective, these include following:

1. Living marine resources are not evenly distributed in the world oceans.
2. Inequities in overall technological and economic development exist among countries adjacent to abundant biological resources and countries without such resources.
3. Some countries have resources in their coastal waters that they do not exploit, while others, particularly developed fishing nations, have presently over-

[2]For a comprehensive analysis of factors considered in establishing an international joint venture in fishing, see Sullivan, J.J. and Heggelund, P.O., Foreign Investment in the U.S. Fishing Industry, Pacific Rim research series, No. 3, 1979, Chapter 6, pp. 103-114.

invested fleet potential and processing capacities, which could be used to harvest those underutilized resources.

4. There is a growing demand for fish protein in developing countries, along with continued high demand for fish food in many developed nations.

5. Implementation of 200-mile economic zones has resulted in catch limitations being imposed by coastal states on foreign ocean-going fishing fleets.

How two countries' needs might be resolved through cooperative arrangements can now be outlined by comparing the decision-making elements of a joint venture.

Table 2. Decision-making criteria in the development of joint ventures

Host	Foreign
Has marine resources that are underutilized or not exploited at all (United States, New Zealand, Argentina)	Needs access to fisheries resources--in new areas or in traditional ones that are no longer accessible (F.R.G., Spain, Soviet Union, Italy, etc.)
Does not have sufficiently developed domestic fisheries market or access to foreign markets (most of South American and African nations)	Has established markets and distribution network (Norway, Denmark, Japan, Canada, etc.)
Does not have large-scale harvesting/processing capability like vessels, infrastructure, etc. (many developed and developing coastal countries)	Has distant water harvesting/processing capability--factory-trawlers, large floating processors, cold storage facilities, etc. (Japan, R.O.K., Soviet Union, Poland, F.R.G., Spain)
Does not have experience or technology in local fishing industry (many developed and developing countries)	Has experienced fishing industry, skilled personnel, technology and know-how (West European countries, some Soviet bloc nations, Japan, R.O.K., and others)
Local fishing industry cannot competitively exploit lower-market value species (United States, Mexico, Peru, Canada and other nations)	Can economically exploit lower market value species because of lower manpower costs (Japan, R.O.K., Taiwan, Soviet Union) large scale operations and lower costs per unit of effort, governmental subsidies to fishing industry (Soviet bloc countries, partially Japan and some West European fisheries)

Goals and Objectives— Private vs. National Interests

The objectives that a government or business has for its joint venture may be short or long term.[3] Generation of direct incomes for companies and fishermen may be a goal of both government and private industry, but a government may also be interested in improving the nation's balance of trade in fishery products, or in increasing supplies of fish food commodities to the domestic market.

Another objective of joint venture might be to gain access to new markets. Foreign partners

[3]Guidelines for Project Evaluation, Project Formulation and Evaluation Series, No. 2, United Nations, New York 1972. pp. 11-17.

Table 3. Goals and objectives for joint ventures development

Foreign		Host	
National goals	Private objectives	National Goals	Private objectives
Employment for fishermen, vessels, and land processing industry	Generation of higher income	Resource development	Source of income
Access to overseas coastal resources	Vessel employment	Employment opportunities	Utilization of coastal resources
Political gains (improving relations with the host country)	Additional vessel's and equipment's depreciation opportunity	Development of coastal land infrastructure (ports, transportation, etc.)	Growth of company's standing
Additional raw materials or finished products for local market	Hard currency or products generation	Increasing work efficiency (skills)	Government subsidies or tax exemptions
Hard currency source and improvement of balance of trade with host country	Exports of know-how, vessels, equipment, etc.	Hard currency savings on imports	Access to foreign technology, management and markets
Joint venture as a support base for expansion of long-range fisheries in other areas		Improvement of balance of trade (incl. terms of trade)	Hard currency source
Savings in hard currency and lower production costs		Free or less expensive modern technology imports	
Export opportunities for shipyards and other export companies		Additional supplies of fish products for local market	

entering in cooperation with a host country usually offer their own distribution networks and domestic and international consumption markets which would otherwise be unavailable to the host country.

A long-range fishing country may seek to decrease production costs through more efficient use of fuel, equipment, and even manpower to assure a more competitive position for the joint venture's fish products. Having a base of operations near the resource can effectively reduce costs and increase production output.

Goals and objectives may also be extended to include more general social concerns. For example:

1. Increase aggregate consumption: joint venture may help increase supply of fish products where the goal is to raise the level of fish food consumption (Nigeria, S. Yemen, Bangladesh).
2. Income redistribution: joint venture may contribute to increased income levels for additional fishing industry groups (fishermen, processors, brokers, etc.) or to geographic regions, which otherwise may remain stagnant (Patagonia, Alaska, Namibia).
3. Increase employment (or reduce unemployment): providing jobs in the fishing industry may be a goal for joint venture that will impact regional and national economies (Peru, Mauritania, India).

4. Develop self-reliant industry: with joint ventures increasing in developing countries, the question of growing dependence on the richer developed fishing countries is being raised more and more frequently. But while many countries may be working toward developing a self-reliant industry, not all joint ventures contribute to this goal. Some may even increase the host country's dependence on developed nations.

Finally, it should be noted that a certain number of joint ventures are established for political reasons or as a result of "package deal" arrangements[4] between the foreign and host countries. The objectives in these instances may be exchange of technology, increased quota allocations, improved intergovernmental relations, and growing political and economic influence of foreign partner's country.

Factors that Affect Joint Ventures Arrangements

There are several factors which may determine what each partner has to offer, the kinds of arrangements each is willing or likely to make, and what each may seek to gain. They are--

-- the interests being represented, i.e., private industry or government,

-- whether the partner is from a host or foreign country,

-- the economic system involved, i.e., free market versus centrally planned economies,

-- whether the country is developed or developing.

Private vs. national interests In certain host countries (Peru, Ecuador, and Argentina are examples) some joint ventures are run by government agencies or state controlled companies. In other cases, joint ventures are formed using capital provided by both a government agency and private company. Because such a venture must satisfy both private and national goals and interests, it may prove to be very difficult to manage.

Host vs. foreign As we have seen in the distribution information, the host country is most likely to be the base of operations, offering access to a resource. The foreign partner may offer technology, or access to established markets in exchange.

[4]Some intergovernmental fishery agreements foresee joint venture operations as a way of foreign technology and know-how transfer to the host country. In exchange for its contributions in joint venture operations, foreign country is permitted to harvest coastal resources within quota allocated by the host nation. See Carroz, J.E. and Savini, M.J., Bilateral Fishery Agreements, A review of bilateral fishery agreements concluded as a result of the new regime of the oceans. F.A.O. Fisheries Circular, No. 709, FID/C709, F.A.O., Rome, April 1978.

Free market vs. centrally planned economies Foreign partners from centrally planned economies such as the Soviet Union, Poland, or Cuba, are most likely to be represented by governmental corporations or state-owned fishing companies.

Developing vs. developed nations The developing nations are generally host nations.

Evaluating Joint Venture Potential—Costs and Benefits

Regardless of a country's particular interests, each joint venture participant weighs the expected costs against the anticipated benefits. The cost-benefit analysis of potential involvement in a joint venture is based on an economic account which allows the partner to compare the costs and benefits of joint venture activities with noncooperative operations--that is, autonomous development--and national interests.

Two basic goals can be specified for potential joint venture partners[5]:

1. Increasing or maintaining the volume of catch in a joint venture (Pjv), as compared to autonomous operations (Pa).
2. Achieving a higher value of catch (Qjv) through joint venture than by autonomous operations (Qa); or, decreasing production costs (Cjv) as compared to autonomous activities (Ca).

This can be expressed by--

$$Pjv \geqslant Pa$$

or $Qjv \geqslant Qa$

when $Cjv \leqslant Ca$

Practically speaking, what is most important to the foreign operator is to realize an increase of production volume concomitant with little or no increase in operations costs. In other words, through joint venture, he will try to decrease the unit cost of obtaining fish raw material. Thus:

$$Qjv \ : \ Pjv \geqslant Qa \ : \ Pa$$

In extreme situations (and they are common in present world joint venture developments), the foreign partner may not be able to catch more fish or achieve higher production value through joint venture operations than he would through a noncooperative fisheries. However, the company may still wish to participate in a joint venture because--

[5]Kaczynski, W., Kasprzyk, Z., Elementy ekonomicznego rachunku efektywnosci miedzynarodowej kooperacji rybackieg (Elements of international joint venture efficiency analysis), Prace Morskiego Instytutu Rybackiego (Sea Fishery Institute Proceedings), Vol. 18, Series C, Gydnia, Poland, 1978.

1. Within joint venture operations it is possible to reduce capital investments and operations costs, or
2. Joint venture assures fish raw material and more competitive processed products for the operator's markets.

Economic efficiency analysis in joint ventures also involves determining how international fishing operations are included in a company's cost-benefit balances. This again depends upon individual arrangements, economic interdependencies, and account clearing methods between partners. There are at least three common situations we have identified:

1. When fish products of the joint venture are exported on the world market, both foreign and host partners receive their shares in hard currency. This may be the best way for the foreign partner to realize the benefits of the venture (as opposed to shipping large volumes of finished products, for example), and for the host country to benefit from the venture when it does not have a local market (Peru, Argentina, Australia).
2. When joint venture production is being marketed in the host country, the foreign partner may receive the equivalent of his share both in hard currency, or in-kind benefits (i.e., higher national quotas in licensed fisheries), or privileges (i.e., support for long-range fleets). (Somalia, Nigeria, Mexico).
3. When joint venture production goes to the foreign partner's domestic market on regular terms of trade basis or at pre-established prices, the fish products are his compensation for costs and (cash) income (Japan, U.S.S.R., Spain, Poland).

A Case Study in Joint Ventures Development—Trends and Problems in the North Pacific Fisheries

Newly implemented 200-mile economic zones have created numerous obstacles for long-range operators in the North Pacific. The Soviet Union, Canada, Japan, and the United States have introduced quota allocations systems for certain species and have restricted fishing seasons, harvest areas, and the number of foreign vessels that can operate in their coastal waters. Some foreign countries have been forced to reduce the distant water fishing fleets they have traditionally employed in the North Pacific fisheries and are now facing decreased quota allocations. As a result of these restrictions, some long-range fishing nations such as the U.S.S.R., Poland, South Korea, and Japan, have initiated strong diplomatic efforts

and commercial initiatives to stop declining catches and to maintain employment opportunities for their fleets and fishermen. Joint ventures with coastal nations are considered to be a potential solution to these difficulties.

There are different approaches to joint venture goals, methods of operation, and degree of integration offered by foreign partners in the North Pacific. In the mid-1970s, Japan tended to concentrate its partnerships with the United States and Canadian fishing industries in land-based seafood processing companies.[6] The Soviet Union, South Korea, and Poland on the other hand, have been more interested in harvesting and processing-at-sea ventures.

In the joint ventures that are presently developing in the North Pacific, relations between foreign and local companies exist mainly at the production-distribution levels. The labor is divided between local fishermen who catch the fish and the foreign operators who process it at sea.

There is a relatively low level of economic integration between participating companies in the North Pacific joint ventures. In Soviet-Japanese, Soviet-U.S., and Polish-Canadian ventures, among others, there is little or no direct capital investments to the venture. Except for Japanese investments in the U.S. and Canadian processing industries, all nations fishing the North Pacific are interested in contributing what they already have in the way of technology and know-how--modern factory vessels, highly trained crews, experience in large scale harvesting-processing operations, and markets--rather than capital. As a result, the level of input offered by foreign partners can easily be adjusted to existing operational requirements and economic or political conditions between foreign overseas and coastal nations of this region.

Restrictions existing in the Soviet Union, the United States, and Canada do not favor long-term joint operations, thus resulting arrangements between local and foreign partners are mostly temporary. Although these host countries' regulations provide little economic incentive to optimize those arrangements, joint ventures may prove to be very competitive with the domestic fishing industries, because foreign partners frequently enjoy subsidies from their governments.

In U.S. coastal waters, overseas operators such as the Soviet Union and South Korea are involved in joint venture arrangements to harvest only those species which still cannot be processed by the local fish processing industry. Species like Alaska pollock, whiting (Pacific hake), mackerel, some flatfish species, and others have remained underexploited by U.S. fishermen, while overseas operators have traditionally harvested them in the U.S. coastal zone.

[6]Sullivan, J.J. and Heggelund, op. cit.

Recent studies (Lynde, 1980) on costs and benefits to U.S. fishermen involved in joint venture operations suggest much better overall economic efficiency of harvesting and delivering the catch at sea to a floating processor (such as a foreign factory ship) than supplying fish to a land-based processing plant. Although international joint fishing ventures may hinder the development of the U.S. domestic processing potential and the long-term benefits to the domestic industry as a whole may be uncertain (Sullivan and Heggelund, 1979), their short-term impact to the U.S. fishermen is clearly beneficial. These joint ventures have relatively reduced impact on traditionally developed local harvesting, processing, and marketing of highly valuable species such as crab, salmon, shrimp, or halibut.

Recommendations Despite the positive short-term impacts of joint ventures on the U.S. fishing industry, there has been no steady progress toward wise development of underutilized marine resources with participation by foreign fleets. Instead, emerging joint venture challenges are being resolved on a problem-by-problem basis. In response to this situation, fisheries managers and lawmakers should consider formulating a long-term policy which would define national purposes in fishery joint venture activities and establish goals against which domestic and international priorities can be easily measured.

Appendix 1
Summary of Joint Ventures Data

Africa

Host Country	Foreign Partner	Number of Ventures and Main Characteristics
Trawlfish		
Angola	Portugal	1 no details available
	U.S.S.R.	1 cooperation agreement; 10 vessels from U.S.S.R.
Cameroon	France	1 7 trawlers; harvesting and marketing
	Spain	1 3 vessels from Spain; terminated
Canary Is.	U.S.S.R.	1 land base for Soviet fleet operating in Atlantic Ocean
Egypt	Italy	1 6 trawlers from Italy
	Kuwait	1 freshwater fish in Aswan Lake
Equatorial Guinea	Spain	1 inactive
Gabon	France	1 2 trawlers; harvesting and marketing; terminated
	Japan	1 harvesting and marketing planned
Gambia	Ghana	1 fishing venture; processing operations planned
	R.O.K.	1 no details available
Ghana	Japan	1 2 trawlers and cold storages; terminated(?)
Guinea	Greece	1 7 freezer vessels; no details
	R.O.K.	1 13 trawlers from R.O.K.
Guinea-Bissau	Algeria	1 5 vessels; Spanish operators
	Portugal	1 5 vessels from Portugal
	U.S.S.R.	1 10 freezer trawlers; processing plant in construction
Ivory Coast	France & Senegal	1 3 vessels, 1 refrigerating carrier, and marketing operations
Libya	Greece	1 9 vessels with local flag and 12 Greek cutters
	Malta	1 16 trawlers operating off both countries
	Spain	1 2 trawlers; plans for 12
Mauritania	France	1 salting factory; subsidiary
	Iraq	1 no details available
	Japan	3 2 subsidiaries - involved in fishing and processing
	Libya	1 no details available
	Portugal	1 vessels from Portugal
	Spain	1 subsidiary in venture with 298 vessels, 6 factories in 1979. Mauritania intends to get 50% participation
	U.S.S.R.	1 joint agreement; 25 trawlers from U.S.S.R.; onshore processing equipment, training, and research
Morocco	France	1 marketing venture
	Italy	1 at least 1 trawler
	Japan	3 25 trawlers from Japan, mainly (also squid and shrimp)
	Kuwait	1 5 freezer trawlers (in project in 1974)
	Portugal	3 9 vessels (3 from Portugal), cannery (also Portuguese)
	Spain	1 13 trawlers from Spain
	U.S.A.	1 2 freezer trawlers (in project in 1974)
	U.S.S.R.	1 onshore processing equipment (project in 1974)
Mozambique	Cuba	1 cooperation agreement
	U.S.S.R.	1 8 vessels
Nigeria	Poland	1 no details available
Reunion (France)	Japan	1 cold storage; subsidiary(?)
Senegal	Belgium	1 3 trawlers; plans for 20 trawlers and processing operations
	France	1 most of the 22 vessels are from Senegal
	R.O.K.	1 harvesting and processing
Sierra Leone	U.S.S.R.	1 cooperation agreement; joint venture planned
Somalia	U.S.S.R. or Iraq	1 harvesting, processing, and marketing
	U.S.S.R.	1 Russian vessels supplying fish for local market
S. Africa	F.R.G.	1 exploratory fishing; 1 freezer trawler
	Neth.	1 charter agreement; terminated(?)
	Spain	1 23 trawlers (at least), processing plant, and marketing
Togo	Libya	1 harvesting and processing
Tunisia	Libya	1 some trawlers and several open boats with Tunisian crews
Tunalike Species		
Cape Verde	Portugal	1 4 catchers and storage
Congo	Italy	1 seiners from Italy
Gabon	France	1 French catchers, cannery planned
Ghana	Japan	1 3 pole and line catchers from Japan
	U.S.A.	1 Japanese chartered catchers and local boats
	U.S.A. & Japan	2 harvesting and marketing with foreign vessels
Guinea-Bissau	France	1 seiners from France and processing plant; subsidiaries
Ivory Coast	France	4 seiners from France, some with local flag, and canneries
	Japan	1 longlining and cold storage

ABBREVIATIONS:

F.R.G. - Federal Republic of Germany
P.R.C. - Peoples Republic of China
R.O.K. - Republic of Korea (South)

Kenya	Japan	1	chartered Taiwanese catchers
Madagascar	Japan	1	local and Japanese chartered catchers
Mauritius	Japan	1	canning operations
Morocco	Belgium	1	4 tuna, 9 sardine seiners; 20 trawlers
Namibia	U.S.A.	1	chartered pole and line catchers from Japan
Senegal	U.S.S.R.	1	terminated
	France	3	canning operations; subsidiaries(?)
Seychelles	France & U.K.	1	cooperative agreement

Shrimp

Cameroon	Japan	1	investment from 4 countries
	U.S.A.	1	8 trawlers
Gabon	Japan	2	limited details available for both ventures
Guinea	Japan	1	2 shrimp trawlers and 1 freighter
Guinea-Bissau	France	1	5 trawlers; shrimp and flatfish
Liberia	R.O.K.	1	planned shrimp and other crustaceans venture
Madagascar	France	1	no details available
	Japan	2	1 venture terminated; other has 3 trawlers
	Kuwait	1	13 trawlers
	Lebanon	1	terminated, bought by Kuwait
Mozambique	Portugal	1	15 trawlers; terminated(?)
	S. Africa/ Spain	2	13 shrimp trawlers
Nigeria	Japan	2	more than 50 shrimpers from Japan
	Kuwait	1	13 shrimp trawlers
	U.S.A.	2	26 shrimp trawlers
Sudan	U.K.	1	shrimp resource joint assessment
Tanzania	Japan	1	5 shrimp trawlers

Squid

Mauritania	Japan	1	23 trawlers and 4 training boats; subsidiary(?)
	Kuwait	1	4 factory trawlers; local crews

Small Pelagic Species

Angola	U.S.A.	1	fish meal floating factory; moved, then sold to South Yemen
	S. Africa	1	3 vessels, fish meal factory
Mauritania	Algeria	1	4 trawler-seiners with local crews
	Norway	1	fish meal floating factory, 15 catchers
	Norway & Sweden	1	fish meal floating factory, 2 Norwegian onshore plants; subsidiary(?); terminated(?)
	S. Africa	1	20 South African catchers under Dutch flag
	Spain	1	3 seiners, local flag; subsidiary
Nigeria	Norway	1	2 factory motherships, 2 trawlers, 2 seiners all from Norway

Lobsters

Cape Verde	France & Senegal	1	harvesting and marketing operations
Gambia	Japan	1	processing and marketing (crustaceans); terminated
Mauritania	France	2	1 terminated and 1 with 5 lobster catchers from France; subsidiary(?)

Middle East and Southeast Asia

Trawlfish

Host Country	Foreign Partner	Number of Ventures and Main Characteristics	
Bangladesh	Japan	1	exploratory fishing; terminated(?)
	Thailand	1	25 trawlers; cooperation agreement
Burma	Japan	1	cold storage; terminated(?)
Hong Kong	Japan	1	cold storage
India	Bulgaria	1	2-5 freezer trawlers
	Poland	1	charter agreement; 1 Polish freezer trawler
	R.O.K.	1	6 Korean vessels and 25 chartered from Thailand
	Thailand	1	30 trawlers from Thailand with Thai crews
	U.K.	1	4 trawlers; subsidiary(?)
Indonesia	Japan	1	no details available
Iran	France	1	16 trawlers - not strictly a joint venture
Japan	Iceland	1	marketing joint venture
Kuwait	R.O.K.	1	vessels from Korea
Malaysia	Australia	1	processing (cannery) and marketing
	R.O.K.	1	exploratory fishing; 2 trawlers from R.O.K.
	Thailand	1	fleet trawlers
Oman	Japan	1	4 Japanese trawlers; 1 year agreement, terminated(?)
	R.O.K.	1	2 freezer trawlers from Korea
Pakistan	Greece	1	export at sea
	Turkey	1	1 year exploration; chartered Italian trawler
P.R.C. (China)	Japan	1	cooperation agreement
Philippines	Iraq	1	6 vessels
	Japan	1	harvesting, processing, and marketing of eel
	Poland	1	factory trawlers from Poland
Singapore	Japan	1	operates 22 trawlers
	U.S.S.R.	1	processing and marketing
S. Yemen	U.S.S.R.	1	8 vessels, 2 from U.S.S.R.
Sri Lanka	Hong Kong	1	no details available
	Iraq	1	project collapsed
	Japan	1	no details available
	Norway	1	2 trawlers; cooperation agreement
	Singapore	1	no details available
	U.A.E.	1	cooperation agreement and joint venture
Thailand	Australia	1	processing (canning); subsidiary(?)
Vietnam	Japan	1	2 vessels, cold storage; subsidiary(?)
14 Arab Nations	From Middle East	1	harvesting, processing, marketing, boat building, fish farming, marine transportation

Tunalike Species

India	U.S.A.	1	19 catchers; harvesting, processing and marketing; cannery and fish meal factory
Indonesia	Japan	2	1 with 5 catchers and storage; 1 with exploratory fishery
	Taiwan	1	20 catchers, 2 carriers; export of frozen fish to Japan
Iran	R.O.K.	1	agreement for 1 year fishing; 4 vessels
Israel	Japan	1	longlining; terminated
Maldive Is.	Japan	2	processing (cannery) and marketing
Malaysia	Japan	3	2 terminated(?); catchers, 1 or 2 canneries
Philippines	Canada	1	2 Canadian catchers and local catchers; export
	Malaysia	1	export - marketing
	Japan	2	1 marketing; 1 harvesting and marketing
	U.S.A.	3	seiners, 2 cold storage, 1 cannery (closed?)
Thailand	Japan	1	processing (arabushi) and marketing
R.O.K.	U.S.A.	1	8 catchers from R.O.K., cannery(?)

Shrimp

Bangladesh	Japan	1	3 trawlers (at least)
Burma	U.K.	1	cooperation agreement; 21 trawlers
India	Japan	3	1 involved in canning; 3 in harvesting operation
Indonesia	Japan	8	about 90 trawlers, 1 cannery
	U.S.A.	1	4 shrimp trawlers
Malaysia	Japan	2	about 20 trawlers
Pakistan	Japan	1	no details
P.R.C. (China)	Japan	1	4 trawlers (at least); "compensation trade"
Philippines	Japan	1	no details available
U.S.S.R.	Japan	3	temporary joint fishing operations 10 trawlers from Japan including 1 mothership and 2 refurbished shrimpers from U.S.S.R.

Squid

R.O.K.	Japan	1	Japanese vessels chartered
S. Yemen	Japan	1	3 vessels from Japan, cold storage

Small Pelagic Species

United Arab Emirates	Norway	1	7 vessels, 1 fish meal plant
	Peru	1	21 vessels, 1 fish meal plant planned(?)

Miscellaneous Crustaceans

Japan/ U.S.S.R.	U.S.S.R./ Japan	4	temporary joint fishing for tanner and hair crab; 8 Japanese and 2 Russian crabbers

Oceania

Trawlfish

Host Country	Foreign Partner		Number of Ventures and Main Characteristics
Australia	F.R.G.	1	no details available
	Japan	1	marketing and 1 year exploratory fishing
	Poland	1	exploratory trawl fishing - Polish factory trawler
	R.O.K.	1	trawlers from R.O.K. (1 more venture planned)
	U.K.	1	3 freezer trawlers - terminated
	U.S.S.R.	1	2 years exploratory fishing
Micronesia (Saipan)	Japan	1	no details available
New Zealand	Japan	2	exploratory fishing (with quotas)
	R.O.K.	2	harvesting by R.O.K.; trawlers (quotas)
	U.S.S.R.	1	project delayed

Tunalike Species

Australia	Japan	1	harvesting, processing, and marketing
	U.S.A.	1	charter for exploratory fishing
Fiji	Japan	1	chartered catchers, cannery
French Polynesia	Japan	1	local catchers, 6 cold stores
	U.S.A.	2	chartered catchers, carriers, cold storage
Micronesia (F.S.M.)	Japan	2	catchers, 2 factories (arabushi) in Caroline and Ponape
Nauru	Japan	1	chartered catcher, cold storage
New Hebrides	Japan	1	chartered Taiwanese catchers, processing
New Zealand	U.S.A.	1	chartered U.S. catchers, processing in Samoa
Papua New Guinea	Japan	3	catchers from Japan, 1 store, 1 factory
	U.S.A.	1	chartered catchers, cannery project
Solomon	Japan	2	1 venture for harvesting, 1 for processing (2 plants)

Shrimp

Australia	Japan	3	about 22 trawlers, 1 shrimp processing plant; 1 joint venture terminated
Papua New Guinea	Canada	1	2 trawlers; terminated(?)
	Kuwait	1	17 trawlers; terminated(?)

Squid

Australia	Japan	4	joint fishing operations feasibility studies
New Zealand	F.R.G.	1	exploratory fishing; 1 factory trawler (F.R.G.)
	Japan	8	Japanese vessels mainly, eventually chartered; often "target" fishing (species and quotas imposed)
	R.O.K.	5	target fishing

Miscellaneous Other

Australia	France	1	plans to operate 200 licensed vessels
	Taiwan	1	charter agreement (vessels from Taiwan)
	U.K.	1	kelp farming
New Zealand	Australia	1	processing venture
	Japan	1	no details available

Miscellaneous Crustaceans

New Zealand	Japan	1	1 trawler; terminated(?) (crayfish)

South America

Host Country	Foreign Partner	Number of Ventures and Main Characteristics
Trawlfish		
Argentina	F.R.G.	1 terminated
	Japan	1 exploratory fishing (scientific mainly)
	R.O.K.	1 no details available
	Spain[7]	9 30 Spanish trawlers and 3 freighters
Chile	Cuba	1 exploratory fishing; terminated(?)
	Japan	1 2 factory trawlers from Japan
	R.O.K.	1 2 Korean vessels for joint fishing
	Spain	1 1 trawler (at least) from Spain
	Switzerland	1 foreign investment
	U.S.S.R.	1 charter agreement; terminated
Ecuador	Poland	1 joint exploration
Peru	Cuba	1 3 or 4 Cuban factory trawlers; terminated
	Japan	1 processing; terminated
	Poland	2 6 to 20 trawlers from Poland
	Spain	2 6 vessels (at least) from Spain
Uruguay	Netherlands	1 project; collapsed
	Panama	1 1 trawler, may be whaling operation
	Spain	2 3 trawlers from Spain
Venezuela	Spain	2 charter of 5 vessels and 3 freezing trawlers from Spain
Tunalike Species		
Argentina	Japan	1 foreign investment; 15 seiners and 12 fish carriers from Japan
Brazil	Japan	1 longlining, exploratory phase
	Spain	1 subsidiary
Colombia	Japan	1 4 longliners, cold storage
Ecuador	Spain	1 15 seiners and 1 freighter from Spain
	U.S.A.	2 store and cannery; subsidiary
	Others	3 cold storage; subsidiaries
Peru	U.S.A.	1 processing onshore (nationalized)
Venezuela	Japan	1 longlining
Shrimp		
Argentina	F.R.G.	1 3 shrimp trawlers (at least)
Brazil	Japan	1 2 shrimp trawlers + whaling operations
	Poland	1 30 shrimp trawlers; terminated
Colombia	Japan	1 shrimp trawlers from Japan
French Guiana	U.S.	2 up to 120 shrimp trawlers from U.S.A. (One of these two went into bankruptcy.)
Guyana	Japan	7 up to 125 shrimp trawlers from Japan; at least two failures in 1975
	U.K.	1 88 shrimp trawlers
	U.S.A.	1 83 shrimp trawlers
Surinam	Japan	1 35 shrimp trawlers
	U.S.A.	1 49 shrimp trawlers from foreign nations
Small Pelagic Species		
Chile	Peru	1 fishmeal and processing venture
Miscellaneous Other		
Chile	Japan	1 salmon ranching
Ecuador	R.O.K.	1 5 vessels from R.O.K. (no details available)

Central America

Host Country	Foreign Partner	Number of Ventures and Main Characteristics
Trawlfish		
Jamaica	U.S.S.R.	1 surveys and exploratory fishing
Mexico[8]	Japan	2 catch in U.S. and Mexican waters
	R.O.K.	1 venture designed to harvest in U.S. waters
	Spain	2 hake, cod, squid in U.S. waters with vessels from Spain
Tunalike Species		
Costa Rica	U.S.A.	1 3 seiners (at least) from U.S.A. cannery
Cuba	France	1 1 seiner (at least)
Mexico	Italy	1 3 seiners; 1 plant
	Japan	1 plans for 30 Japanese longliners
Shrimp		
Costa Rica	U.S.A.	1 shrimp farming; beginning 1980
Guatemala	Japan	1 19 shrimp trawlers
Haiti	Spain	1 2 boats (at least)
Small Pelagic Species		
Mexico	U.S.A.	2 anchovy seiners, reduction plants

[7] Note: Though we have not been able to identify more than 9 joint ventures between Argentina and Spain dealing with trawlfish, in 1978 Argentina reported 15 such ventures.

[8] Note: In 1978 Mexico reported 8 joint ventures with Spain, 3 with R.O.K., 3 with Japan, 2 with the United States, and 4 on which details are not available.

North America

Host Country	Foreign Partner	Number of Ventures and Main Characteristics
Trawlfish		
Canada	Bulgaria	1 export of fresh fish at sea; terminated
	F.R.G.	1 experimental project; 6 trawlers; terminated(?)
	Poland	1 export of fresh fish at sea; terminated
	U.K.	1 experimental charter (1 trawler); terminated
U.S.A.	Norway	1 planned project
	R.O.K.	1 export of fresh fish at sea (30 trawlers)
	U.S.S.R.	1 U.S. trawlers for U.S.S.R. factory mothership
Shrimp		
U.S.A.	Japan	1 no details available
Whales		
Canada	Japan	1 whaling operations; terminated

Europe

Host Country	Foreign Partner	Number of Ventures and Main Characteristics
Trawlfish		
Denmark (Greenland)	U.S.S.R.	1 project rejected by Greenland
Eire	France	1 subsidiary(?); processing plant
	Japan	1 exploratory fishing; terminated
	Spain	2 4 Spanish trawlers; 1 terminated(?)
Norway	Canada	1 2 factory trawlers from Norway
Spain	U.S.S.R.	1 exploratory fishing; processing and marketing venture
Sweden	Poland	1 1 Polish and 1 Swedish factory trawler; terminated, although marketing still developed
	U.S.S.R.	1 marketing of Russian fish products
U.K.	Norway	1 onshore processing (stockfish)
Yugoslavia	Poland	1 no details available
Tunalike Species		
France	U.S.S.R.	1 management of Russian tuna fleet
Italy	Japan	1 longlining; terminated
Portugal (Azores)	U.S.A.	1 exploratory fishing
Small Pelagic Species		
Norway	Sweden	1 fish meal floating factory; terminated
U.K.	Bulgaria	1 purchase of fish at sea, transfer at sea (effective 1 season at least)
	Italy	1 purchase of fish at sea, transfer at sea (effective 1 season at least)
	U.S.S.R.	1 purchase of fish at sea, transfer (effective 3 seasons)
Whales		
Cyprus	Japan	1 whaling operations under Cypriot flag by Lichtenstein based company

Appendix 2
Joint Ventures Computer Files

To provide a quantitative base for this study, an interactive computer program has been designed to store and manipulate the data collected on joint ventures (Lynde and Lindsay, 1979). The purpose of this program is to display various possible interrelationships in world joint venture activities. The program is being run on a microcomputer (IMSAI 8080). The file is temporarily stored on floppy discs and later will be transferred to the University of Washington (CDC) computer and stored on tape.

Once the file is transferred to the CDC computer, a file management utility called Datalib (Lindsay et al., 1978) will allow easy access and retrieval of subsets of the joint venture data. The user may simply specify a variable or set of variables--for example, target species equals tuna--and Datalib will produce a separate file containing all the information on joint ventures in which the target species is tuna. This file can then be used as input to other computer programs for further summary or analysis.

The degree of detail on individual joint ventures varies from one case to another, according to the data available (see sample cases). It is hoped that the system will have continuing life, in which new data are entered as they become available and in which it is eventually expanded and applied to other joint venture development questions.

List of Variables

Information about international joint ventures will be available for retrieval based on the following data categories:

CAPITAL	Capital and currency
CATCH	Average catch per day (tons)
COMPANY	Name of joint venture company
CREWOR	Origin of crew (FAO country code)

CTCODE1

Code	Description
AFG	AFGHANISTAN
AGO	ANGOLA
ALB	ALBANIA
AND	ANDORRA
ANT	NETH ANTILLES
ARE	UNITED ARAB EMIRATES
ARG	ARGENTINA
ASM	AMER SAMOA
ATB	BR ANTAR TR
ATF	FR SOUTH TR
ATG	ANTIGUA
ATN	DRONNINGMAUD
AUS	AUSTRALIA
AUT	AUSTRIA
BDI	BURUNDI
BEL	BELGIUM
BEN	BENIN
BGD	BANGLEDESH
BGR	BULGARIA
BHR	BAHRAIN
BHS	BAHAMAS
BLZ	BELIZE
BMU	BERMUDA
BOL	BOLIVIA
BRA	BRAZIL
BRB	BARBADOS
BRN	BRUNEI
BTN	BHUTAN
BUR	BURMA
BVT	BOUVET IS
BWA	BOTSWANA
CAF	CENT AFR EMP
CAN	CANADA
CCK	COCOS IS
CHE	SWITZERLAND
CHL	CHILE
CHN	CHINA
CIV	IVORY COAST
CMR	CAMEROON
COG	CONGO
COK	COOK ISLANDS
COL	COLOMBIA
COM	COMOROS
CPV	CAPE VERDE
CRI	COSTA RICA
CSK	CZECHOSLOVAKIA
CTE	CANTON IS
CUB	

CTCODE2

Code	Description
CXR	CHRISTMAS IS
CYM	CAYMAN IS
CYP	CYPRUS
DDR	GERMAN DEMT REP
DEU	GERMANY,FED REP OF
DJI	DJIBOUTI
DMA	DOMINICA
DNK	DENMARK
DOM	DOMINICAN REPUBLIC
DZA	ALGERIA
ECU	ECUADOR
EGY	EGYPT
ESH	WEST SAHARA
ESP	SPAIN
ETH	ETHIOPIA
FIN	FINLAND
FJI	FIJI
FLK	FALKLAND IS
FRA	FRANCE
FRO	FAEROE IS
GAB	GABON
GBR	UNITED KINGDOM
GEL	GILBERT IS
GHA	GHANA
GIB	GIBRALTAR
GIN	GUINEA
GLP	GUADELOUPE
GMB	GAMBIA
GNB	GUINEA-BISSAU
GNQ	EQ GUINEA
GRC	GREECE
GRD	GRENADA
GRL	GREENLAND
GTM	GUATAMALA
GUF	FR GUIANA
GUM	GUAM
GUY	GUYANA
HKG	HONG KONG
HMD	HEARD & MCDONALD IS
HND	HONDURAS
HTI	HAITI
HUN	HUNGARY
HVO	UPPER VOLTA
IDN	INDONESIA
IND	INDIA
IOT	BR IND OC TR
IRL	IRELAND
IRN	IRAN
IRQ	IRAQ
ISL	ICELAND
ISR	ISRAEL
ITA	ITALY
JAM	JAMAICA
JOR	JORDAN
JPN	JAPAN
JTN	JOHNSTON IS
KEN	KENYA
KHM	DEMO KAMPUCHEA
KNA	ST KITTS-NEVIS-ANGUILLA
KOR	REP OF KOREA
KWT	KUWAIT
LAO	LAO
LBN	

Code	Description
LBR	LIBERIA
LBY	LIBYA
LCA	ST LUCIA
LIE	LIECHTENSTEIN
LKA	SRI LANKA
LSO	LESOTHO
LUX	LUXEMBOURG
MAC	MACAU
MAR	MOROCCO
MCO	MONACO
MDG	MADAGASCAR
MDV	MALDIVES
MEX	MEXICO
MID	MIDWAY
MLI	MALI
MLT	MALTA
MNG	MONGOLIA
MOZ	MOZAMBIQUE
MRT	MAURITANIA
MSR	MONTSERRAT
MTQ	MARTINIQUE
MUS	MAURITIUS
MWI	MALAWI
MYS	MALAYSIA
NAM	NAMIBIA
NCL	NEW CALEDONIA
NER	NIGER
NFK	NORFOLK IS
NHB	NEW HEBRIDES
NIC	NICARAGUA
NIU	NIUE
NLD	NETHERLANDS
NOR	NORWAY
NPL	NEPAL
NRU	NAURU
NTZ	NEUTRAL ZONE
NZL	NEW ZEALAND
OMN	OMAN
PAK	PAKISTAN
PAN	PANAMA
PCI	PACIFIC IS (TRUST TER)
PCN	PITCAIRN IS
PCZ	PANAMA CANAL ZONE
PER	PERU
PHL	PHILIPPINES
PNG	PAPUA NEW GUINEA

CTCODE4

Code	Description
PRI	PUERTO RICO
PRK	KOREA,DEM POP REP
PRT	PORTUGAL
PRY	PARAGUAY
PUS	US MISC. PACIFIC IS
PYF	FR POLYNESIA
QAT	QATAR
REU	REUNION
RHO	SO RHODESIA
ROM	ROMANIA
RWA	RWANDA
SAU	SAUDI ARABIA
SDN	SUDAN
SEN	SENEGAL
SGP	SINGAPORE
SHN	ST HELENA
SJM	SVALBARD & JAN MAYEN
SLB	SOLOMON ISLANDS
SLE	SIERRA LEONE
SLV	EL SALVADOR
SMR	SAN MARINO
SOM	SOMALIA
SPM	ST PIERRE & MIQUELON
STP	SAO TOME & PRINCIPE
SUN	USSR
SUR	SURINAME
SWE	SWEDEN
SWZ	SWAZILAND
SYC	SEYCHELLES
SYR	SYRIA

Code	Description
TCA	TURKS & CAICOS IS
TCD	CHAD
TGO	TOGO
THA	THAILAND
TKL	TOKELAU
TMP	EAST TIMOR
TON	TONGA
TTO	TRINIDAD & TOBAGO
TUN	TUNISIA
TUR	TURKEY
TUV	TUVALU
TZA	TANZANIA
UGA	UGANDA
URY	URUGUAY
USA	USA
VAT	VATICAN CITY
VCT	ST VINCENT
VEN	VENEZUELA
VGB	BR VIRGIN IS
VIR	US VIRGIN IS
VNM	VIET NAM
WAK	WAKE ISLAND
WLF	WALLIS & FUTUNA IS
WSM	SAMOA
YEM	YEMEN ARAB REP
YMD	YEMEN,PDP DEM REP OF
YUG	YUGOSLAVIA
ZAF	SOUTH AFRICA
ZAR	ZAIRE
ZMB	ZAMBIA

FCCODE FAO code for foreign country

FCSHARE Shares held by foreign company (times 10)

FLAG Vessel flag (FAO country code)

FORCO Name of foreign company

FORCTRY Name of foreign country

HCCODE FAO code for host country

HCSHARE Shares held by host company (times 10)

HOSCTRY Name of host country

HOSTCO Name of host company

JOURNAL Reference journal code

Code	Description
AF	AUSTRALIAN FISHERMAN
COF	COMMERCIAL FISHERMAN
FNI	FISHING NEWS INTERNATIONAL
FP	FRANCE PECHE
IC	INDUSTRIAS CONSERVERAS
IFR	NOAA INTL FISHERIES REPORT
IP	INDUSTRIA PESQUERA PESCA
LP	LA PECHE MARITIME
SAF	SOUTH AFRICAN SHIPPING & FISHING INDUSTRY REVIEW
WF	WORLD FISHING

LOCATIO Location of base of operations

NOTES Notes on reference

NUMCREW Number of crew

NUMVSLS Number of vessels of type

OFCAP Capacity of onshore facility

OFCODE Onshore facility code

OSFACIL Onshore facility description

OUTPUT Average output level (T/YR)

PGNUM Page number

PROCAP Processing capacity

PRODSUB Product subtype code

Code	Description
FRESH	
FRZBLKS	FROZEN IN BLOCKS
FRZSING	FROZEN SINGLY
PORFRZ	FROZEN PORTIONS
PORFRSH	FRESH PORTIONS

PRODTYP Product type code

Code	Description
FILLETS	
DRESSED	
WHOLE	
PORTION	RETAIL PORTIONS
BULK	MINCED, SALTED, MEAL, OIL, CURED
OTHER	

PRODUCT Product code
PUBLDT Publication Date (MMYY)
PUBLMO Month of publication
PUBLYR Year of publication

QUOTA
REGION Fishing region code
SPCODE Target species code
SPECIES Name of target species
TEXT Descriptive text
VESSEL Vessel type description
VOLNUM Volume number
VSLCODE Vessel type code
VSLSHOR Produced 0=vessel, 1=onshore
YRBEGUN
YRENDED

Sample Case Studies

CASE NO. 19
Name of Joint Venture Co.
NEW ZEALAND PELAGIC FISHERIES DEVELOPMENT CO (NZPFDC)

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
NELSON	0.8 MIL DOLLARS	73	

Name of Foreign Country	Name of Host Country
USA	NEW ZEALAND

Name of Foreign Company	Shares (%x10)
STARKIST FOODS INC	250

Name of Host Company	Shares (%x10)
NELSON FISHERIES *	
SEA LORD PRODUCTS LTD (NELSON) *	
RANGATIRA LTD (WELLINGTON)*/CARTER HOLT HOLDINGS LTD (AUCKLAND)*	

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
SKIPJACK TUNA			
OTHER TUNA SPECIES			
ALBACORE			

Vessel Description	No. Vsls	Vsl Flag	No Crew
PURSE SEINERS (USA) **		NZL	
POLE & LINE FISHING WITH LIVE BAIT - "PIRIMAI" (1974-75)	1		
PURSE SEINER - "FINISTERRE" (64 M) OWNED SINCE 1976.	1		

Description of Onshore Facil.	Capac. (t or t/d)
CANNERY IN PAGO PAGO, AMERICAN SAMOA (STARKIST)	

Product Code	Proc. Cap. (t/d)	Produced (0=vsl, 1=onshore)	Av. Output (t/yr)
		1	

Descriptive Text
CATCH (1977-78): SKIPJACK - 9,256 TONS, ALBACORE - 1,679 TONS.
CATCH (1975-76, EARLY NOV TO LATE APRIL) SKIPJACK - 5,000 TONS.
CATCH (1977-78): TUNA - 2,500 TONS "ZAPATA DISCOVERER"; 1,200 TONS "KERRI-M"; "MICHAELANGELO"-LOST.
ALL TUNA EXCEEDING LOCAL NEED DELIVERED TO STARKIST CANNERY (PAGO PAGO).
THIS JOINT VENTURE HAS BEEN STRONGLY OPPOSED BY LOCAL INTERESTS.
* 4 HOST COMPANIES TOGETHER HOLD 75.0% SHARES.

** US SEINERS CHARTERED WERE: "PARAMOUNT"(73-74); "SOUTH PACIFIC"(68 M 1089 GRT), "MICHAELANGELO" (62 M 967 GRT); "KERRY M" (53 M 837 GRT); "APOLLO", "KERRY M", "VOYAGER" & "ZAPATA DISCOVERER" (1,800 GRT) CHARTERED - 1977-78.

Ref	Journ	Publ. Dt. (mmyy)	Vol	No	Page
COF		0974	13		9
COF		1275	14		12
COF		0176	15		1
COF		1276	15		12
COF		0177	16		1
COF		0977	16		9
COF		0378	17		3
COF		0578	17		5
COF		1278	17		12
FNI		0178	18		1

Notes on Reference
FURTHER REFS IN AF (10/77); WF (04/74, 09/77); LPM (04/79)
FURTHER REFS IN AF (10/77); WF (04/74, 09/77); LPM (04/79)

CASE NO. 40
Name of Joint Venture Co.
THREE OCEANS FISHERIES PTY LTD

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
		79	81

Name of Foreign Country	Name of Host Country
JAPAN	AUSTRALIA

Name of Foreign Company	Shares (%x10)
HOLLY BROS (CONSORTIUM OF 8 SMALL FISHING COMPANIES FROM MIYAGI PREF.)	490

Name of Host Company	Shares (%x10)
(INDIVIDUAL FISHERMEN FROM MALLCOOTA REGION)	51

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
SQUID			

Vessel Description	No. Vsls	Vsl Flag	No Crew
SQUID JIGGING VESSELS CHARTERED FROM HOLLY BROS.	2	JPN	
SOME VESSELS OF INDIVIDUAL AUSTRALIAN SHAREHOLDERS		AUS	

Descriptive Text
SQUID PROCESSED ON BOARD THE 2 JAPANESE FISHING VESSELS; THIS SQUID FEASIBILITY PROJECT HAS BEEN APPROVED FOR 2 YEARS AND SUBJECT TO REVIEW AFTER THE FIRST YEAR.

Ref.	Journ.	Publ. Dt. (mmyy)	Vol	No.	Page
AF		0279	38		3
FNI		0379	18		3
FNI		0479	18		4

CASE NO. 45
Name of Joint Venture Co.
SOVAUST FISHERIES

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
		79	81

Name of Foreign Country	Name of Host Country
USSR	AUSTRALIA

Name of Foreign Company	Shares (%x10)
SOVRYBFLOT	450

Name of Host Company	Shares (%x10)
BIGHT TRAWLERS FISHERIES (VICTORIA)*	
COMMERICAL BUREAU AUSTRALIA PTY LTD (VICTORIA)*	

Vessel Description	No. Vsls	Vsl Flag	No Crew
TRAWLERS (SOVIET)		SUN	

Descriptive Text
*COMBINED AUSTRALIAN SHARES=55.0%
SOVIET TRAWLERS EVENTUALLY TO BE REPLACED BY AUSTRALIAN VESSELS AFTER TWO YEARS. PROJECTION: 5 FACTORY SUPER TRAWLERS (B 400 TYPE).
PROJECTION: FISH PROCESSING FACTORY IN PORTLAND, COMBINED WITH DEEP WATER PORT AND FACILITIES (INVESTMENT OF ABOUT 10 MILLION AUSTRALIAN DOLLARS).
THIS IS A TWO YEAR FEASIBILITY STUDY.

Ref.	Journ.	Publ. Dt. (mmyy)	Vol.	No.	Page
FNI		0578	17		5
WF		0379	28		3

CASE NO. 53

Name of Joint Venture Co.
NEW GUINEA MARINE PRODUCTS

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
MADANG	135,000 AUST DOLLARS	75	

Name of Foreign Country	Name of Host Country
JAPAN	PAPUA NEW GUINEA

Name of Foreign Company	Shares (%x10)
HOKOKU SUISAN CO	400
NIHON SUISAN	300
C ITOH TRADING CO	200

Name of Host Company	Shares (%x10)
(LOCAL PRIVATE INTERESTS)	100

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
SKIPJACK TUNA			
SHRIMP			

Vessel Description	No. Vsls	Vsl Flag	No Crew	Crew Origin
TUNA CATCHERS CHARTERED FROM OKINAWA (1975)*	3	JPN		JPN
TUNA CATCHERS FROM HOKOKU (1975)*	3	JPN		JPN
TRANSPORT VESSEL (1975)*	1			JPN

Descriptive Text
*CREWS ARE JAPANESE BUT LOCAL FISHERMEN BEING TRAINED; THE POOR RESULTS OF TUNA FISHING WERE ATTRIBUTED TO THE LACK OF LIVE BAIT SUPPLY FOR POLE AND LINE FISHING.

Ref.	Journ.	Publ. Dt. (mmyy)	Vol.	No.	Page
LPM		0674	53		1155
LPM		0978	57		1206
NOAA		0378			825

CASE NO. 69

Name of Joint Venture Co.
( )

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
		75	

Name of Foreign Country	Name of Host Country
MALAYSIA	PHILIPPINES

Name of Foreign Company	Shares (%x10)
OCEAN FISHING AND CANNING INDUSTRY SDN.BHD.LTD	400

Name of Host Company	Shares (%x10)
ASIAN MARINE PRODUCT DEVELOPMENT CORP (AMPRODEC)	600

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
TUNA			

Descriptive Text
IN 1975 THIS JOINT VENTURE WAS IN NEGOTIATIONS WITH STARKIST PROBABLY TO SUPPLY RAW MATERIAL TO STARKIST FACTORY IN SAMOA(?); IN 1978(77?) FISHING AND PROCESSING OPERATIONS IN PHILIPPINES WERE RESTRICTED TO VENTURES WITH AT LEAST 70.0% OF THE CAPITAL SHARES OWNED BY LOCAL INTERESTS.

Ref. Journ.	Publ. Dt. (mmyy)	Vol. No.	Page
FNI	1175	14	11
IP	1275	48	1168

CASE NO. 96

Name of Joint Venture Co.
MARISSCO PTY LTD

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
	12 MIL U.S. DOLLARS	75	

Name of Foreign Country
USSR

Name of Host Country
SINGAPORE

Name of Foreign Company
V/O SOVRYBFLOT

Shares (%x10)
500

Name of Host Company
STRAITS FISHERIES LTD

Shares (%x10)
500

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
ALL SPECIES*			

Description of Onshore Facil.	Capac. (t or t/d)
PROCESSING PLANT**	
COLD STORAGE***	

Descriptive Text
*ALL SPECIES CAUGHT BY RUSSIAN TRAWLERS IN THE INDIAN OCEAN, ANTARCTIC AND PACIFIC OCEAN, **PROCESSING PLANT EMPLOYS 300 WORKERS AND PROCESSING RUSSIAN FISH, FROM NEW ZEALAND WATERS, IN PARTICULAR; ***CONSTRUCTION TO BE COMPLETED IN 1981 (IN JURONG) STRAITS FISHERIES IS A SUBSIDIARY OF SINGAPORE MARINE ENTERPRISES AND DEVELOPMENT BANK OF SINGAPORE, CREATED IN 1970 AND HAS BEEN USING USSR FISH PRODUCTS SINCE 1970. MARISSCO BUYS FISH FROM DIFFERENT SOURCES SUCH AS V/O PRODINTORG. MARISSCO IS REPRESENTED IN AUSTRALIA BY CRAIG MOSTYN & CO.

Ref. Journ.	Publ. Dt. (mmyy)	Vol. No.	Page
WF	0178	27	1
WF	0578	27	5
PESC	0178	34	1
LPM	0376	55	1176
FNI	1075	14	10
FNI	0976	15	9
FNI	0178	17	1
IFR	0878	78	14

CASE NO. 132

Name of Joint Venture Co.
( )

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
		76	

Name of Foreign Country
NORWAY

Name of Host Country
UNITED ARAB EMIRATES (ABU DHABI)

Name of Foreign Company
HAREIDE INTERNATIONAL

Shares (%x10)

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
SMALL PELAGIC			

Vessel Description	No. Vsls	Vsl Flag	No Crew	Crew Origin
SMALL VESSELS*	7		12	ARE

Description of Onshore Facil.	Capac. (t or t/d)
FISHMEAL FACTORY (IN RAS EL KAEHUA)	

Descriptive Text
*VESSELS MANNED BY CREWS OF 12 - 2, NORWEGIAN OFFICERS AND 10 ARAB CREW MEMBERS, HAREIDE INTERNATIONAL RESPONSIBLE FOR THE ORGANIZATION AND MANAGEMENT OF THE VENTURE; FLEET AND FISHMEAL FACTORY PROVIDED BY THE FISHERY DEVELOPMENT CORP OF NORWAY (FIDECO)

Ref. Journ.	Publ. Dt. (mmyy)	Vol. No.	Page
LPM	0876	55	1181
LPM	0977	56	1194

CASE NO 155

Name of Joint Venture Co.
INDUSTRIAL DE PESCA CAMARAO (IMPESCAL)

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
LOURENCO MARQUES	63 MIL CFA	74	

Name of Foreign Country	Name of Host Country
PORTUGAL	MOZAMBIQUE

Name of Foreign Company — Shares (%x10)
COMPANIA PORTUGUESA DE PESCA

Name of Host Company — Shares (%x10)
SOCIEDAD DOS REMARDORES LAS PESCAS

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
SHRIMP			

Vessel Description	No. Vsls	Vsl Flag	No Crew
SHRIMP TRAWLERS - 23 M, (450 HP)	15		
REFRIGERATED CARRIER (EX "SILVER ANGLER" FROM DURBAN)	1		

Description of Onshore Facil.	Capac. (t or t/d)
SHRIMP CANNERY (IN ANGOCHE)*	

Descriptive Text
*CANNERY EMPLOYS 80 WOMEN; THE PORTUGESE SHAREHOLDERS MIGHT HAVE WITHDRAWN AFTER THE INDEPENDENCE OF MOZAMBIQUE; SOUTH AFRICA INTERESTS HAVE BEEN REPORTED TO BE INVOLVED IN THAT VENTURE (LPM)

Ref. Journ.	Publ. Dt. (mmyy)	Vol. No.	Page
LPM	-074	53	
LPM	-074	53	
IP	0374	48	1125
WF	0278	27	2
FNI	0573	12	5

CASE NO. 158

Name of Joint Venture Co.
SEA HARVEST CORP

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
SALDANKA BAY		64	

Name of Foreign Country	Name of Host Country
SPAIN	SOUTH AFRICA

Name of Foreign Company	Shares (%x10)
PESCANOVA (VIGO)	400

Name of Host Company	Shares (%x10)
INDUSTRIAL COLD STORAGE LTD	400
SOUTHERN SEAS FISHING ENTERPRISES	200

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
HAKE			

Vessel Description	No. Vsls	Vsl Flag	No Crew	Crew Origin
STERN FREEZERS (1975)	4	ZAF		ESP
SIDE FREEZERS (1975)	4	ZAF		ESP
STERN WET FISH (1975)	3	ZAF		ESP
SIDE WET FISH (1975)	12	ZAF		ESP
WET FISH PURSE TRAWLERS (1975)	6	ZAF		ESP

Description of Onshore Facil.	Capac. (t or t/d)
FISH PROCESSING FACTORY	
COLD STORAGE/ICE MAKING PLANT*	150T/DAY

Descriptive Text
*EMPLOYS 1,000 PEOPLE - 500 SEASONAL WORKERS IN FACTORY. PURCHASE IN 1975 OF "HARVEST HERCULES" EX "VIMIANZO" (FROM PESCANOVA) - 74 M, 1,600 GRT, CAPACITY: 30 TONS/DAY, FREEZER TRAWLER WITH FILLETING TOO. PURCHASE OF WET FISH TRAWLERS IN 1976 FROM PESCANOVA. SEA HARVEST OWNS MANY SUBSIDIARIES IN SOUTH AFRICA AND IS CONNECTED TO PESCANOVA SHIPAIR SERVICES (BOATYARD). SEA HARVEST OWNS A SHRIMP FISHING VENTURE WITH 8 TRAWLERS IN MOZAMBIQUE.

Ref	Journ.	Publ. Dt. (mmyy)	Vol. No.	Page
SAF		0375	30	3
SAF		0475	30	4
SAF		0575	30	5
SAF		0576	31	5
FNI		0778	17	7
IP		0778	51	1235
IP		1278	51	1239
IP		0279	52	1243
LPM		0377	56	1188

CASE NO. 185

Name of Joint Venture Co
GHANA STATE FISHING CORP*

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
TEMA		61	74

Name of Foreign Country	Name of Host Country
USA	GHANA

Name of Foreign Company — Shares (%x10)
STARKIST FOOD CORP

Name of Host Company — Shares (%x10)
(STATE AGENCY)

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
TUNA-LIKE SPECIES (YELLOWFIN)			
TUNA-LIKE SPECIES (SKIPJACK)			
TRAWLFISH			

Vessel Description	No. Vsls	Vsl Flag	No Crew
TUNA CATCHERS - JAPANESE CHARTER			
TRAWLERS (73 M, 3,000 HP)*	4		
TUNA PURSE SEINERS (80 M)*			

Description of Onshore Facil.	Capac. (t or t/d)
1-FISH PROCESSING PLANT	160 T/DAY
1-COLD STORAGE (IN TEMA)	11,500 T
1-COLD STORAGE (IN ACCRA)	1,500 T

Descriptive Text
*IN CONSTRUCTION IN ITALY (IN 1979). THIS JOINT VENTURE MIGHT BE CONSIDERED AS A SIDE PAYMENT FOR THE LICENSES GRANTED TO JAPANESE TUNA CATCHERS CHARTERED BY STARKIST TO SUPPLY ITS TUNA FACTORY IN PUERTO RICO. IN 1976 THIS VENTURE CHARTERED 7 NORWEGIAN VESSELS FROM AKERS MET. LTD. STARKIST MIGHT HAVE WITHDRAWN FROM THIS VENTURE TO CREATE THE GHANA TUNA FISHING DEVELOPMENT CO. WITH NICHIRO.

Ref.	Journ.	Publ. Dt. (mmyy)	Vol. No	Page
LPM		0968	47	1086
LPM		0774	53	1156
LPM		0179	58	1210
FNI		0875	14	8

Notes on Reference
ALSO: M. ARMAH 1968 MS THESIS.

CASE NO. 269
Name of Joint Venture Co.
(WHOLLY OWNED SUBSIDIARY)

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
BALTIMORE/WEST CORK		72	

Name of Foreign Country	Name of Host Country
FRANCE	IRELAND (EIRE)

Name of Foreign Company — Shares (%x10)
ARMEMENT GOALABRE (CONCARNEAU)

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
SHRIMP			
WHITE FISH			

Description of Onshore Facil. — Capac. (t or t/d)
FISH PROCESSING FACTORY_

Descriptive Text
PROCESSED PRODUCTS ARE SHIPPED TO FRANCE ON GOALABRE'S TRAWLERS.

Ref. Journ.	Publ. Dt. (mmyy)	Vol. No.	Page
FNI	0173	12	1

CASE NO. 275
Name of Joint Venture Co.
(TRANSFER OF FISH AT SEA - ON AN ANNUAL BASIS*)

Location of Base of Operations	Capital and Currency	Yr Begun	Yr Ended
CELTIC SEA(SW/UK), OFF AYR-SCTD		76	78

Name of Foreign Country	Name of Host Country
USSR	UNITED KINGDOM

Name of Host Company — Shares (%x10)
JOINT TRAWLERS LTD
BOYD LINE (HULL)
RICHARD IRWINE (ABERDEEN)/ET AL**

Target Species	Fishing Region	Av Catch (t/d)	Quota (t)
MACKEREL			
BLUE WHITING			

Vessel Description	No. Vsls	Vsl Flag	No Crew
FACTORY MOTHERSHIP (B-69 TYPE)"ANTARKTIKA","RYBAK LATVIE"	2		230
PURSE SEINER "SETTE MARI" (45 M)	1		Crew Origin
PURSE SEINER "ARCTIC GAILLARD" (85.5 M)	1		SUN
SEINERS (FROM R. IRWINE)		GBR	
OTHER TRAWLERS		GBR	

Descriptive Text
*THIS VENTURE WAS ON AN ANNUAL BASIS FROM 1976 TO 1978. **ALSO: BOSTON GROUP (HULL); AND CLIPPER SEAFOODS (HULL). QUANTITIES OF MACKEREL DELIVERED TO FOREIGN FACTORY MOTHERSHIPS: 1976 - 87,000 TONS; 1977 - 186,500 TONS (19% OF THE TOTAL BRITISH CATCH). IN 1977, 9 FACTORY MOTHERSHIPS FROM USSR, EAST GERMANY, POLAND AND BULGARIA WERE OPERATING UNDER SUCH CONDITIONS IN BRITISH WATERS, REPRESENTING A MARKET OF 1 TO 2 MILLION U.S. DOLLARS.

Ref. Journ.	Publ. Dt. (mmyy)	Vol. No.	Page
LPM	0877	56	1193
LPM	0977	56	1194
LPM	0278	57	1200
LPM	0179	58	1210
LPM	0679		
FNI	0178	17	1
FNI	0578	17	5
IFR	0678	78	100

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