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COMMERCIAL FISHERIES IN OMAN

Final Report

Bureau for Private Enterprise
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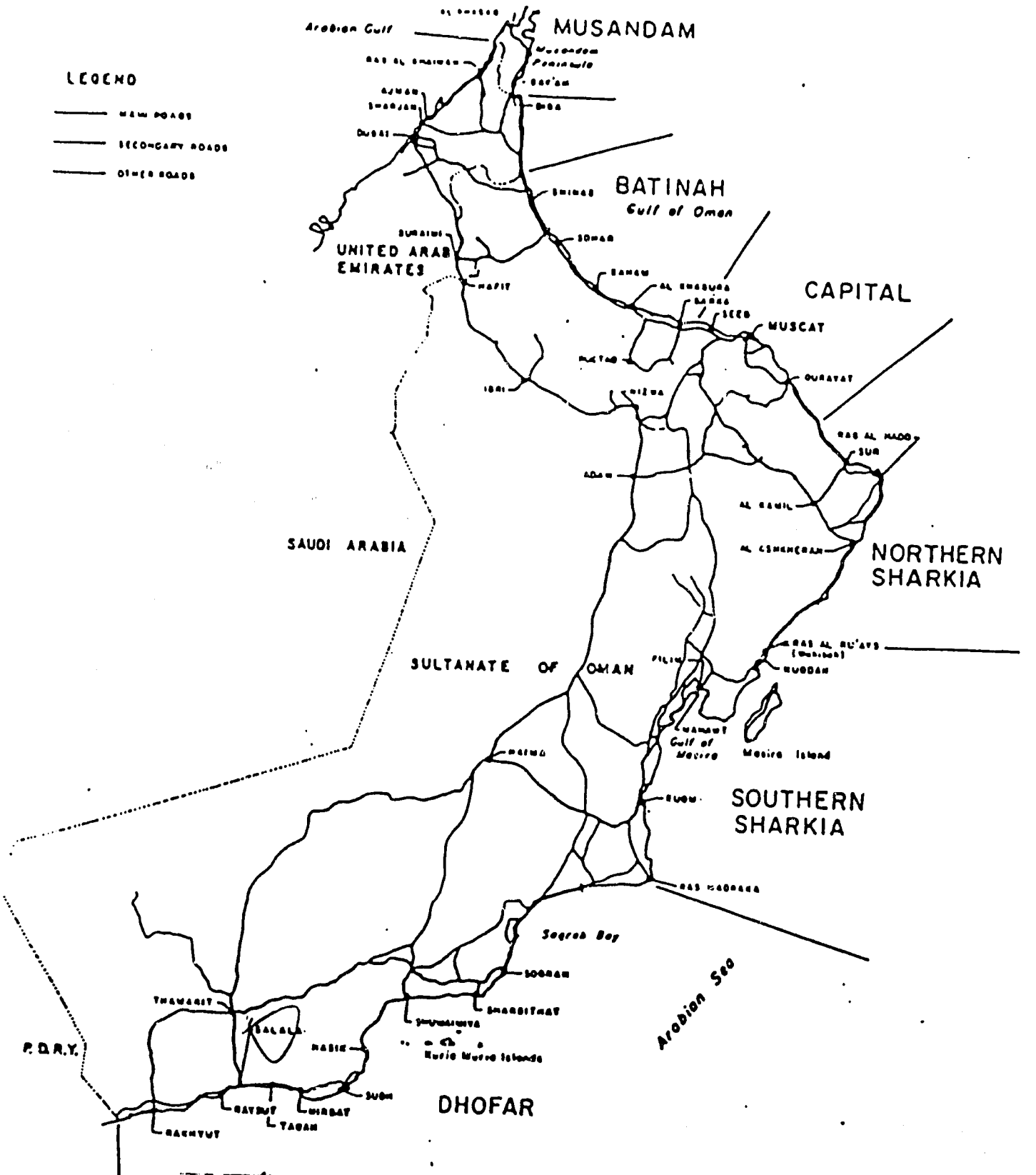
GLOSSARY

Abbreviations

OBAF	Oman Bank of Agriculture and Fisheries
CPUE	Catch per Unit Effort
EEZ	Extended Economic Zone
FAD	Fish Aggravating Device or Fish Attraction Device
FEF	Fisherman's Encouragement Fund
gt	Gross Ton
KOFC	Korean Overseas Fishing Company
MINISTRY	Refers to the Ministry of Agriculture and Fisheries unless otherwise designated
mt	Metric Ton
ONC	Oman National Fishing Company
R.O.	Rial Omani - Oman Currency Unit
$	Refers to the U.S. Dollar

Currency Exchange

A rate of $2.58 to R.O. 1 has been used as a rate of exchange in this report.



MAP OF OMAN

Indicating the Six Fishing Districts

Courtesy RDA International

I. EXECUTIVE SUMMARY

A review of Oman's fishery sector indicates considerable opportunity for development of a rich marine resource. Although this resource has not been thoroughly quantified, there is sufficient research and data to support a development effort of some magnitude of both demersal and pelagic species.

Government development policy has concentrated on the coastal fishermen. During the past ten years, the Fisherman's Encouragement Fund (FEF) has disbursed R.O. 4.073 million ($10.5 million) to subsidize the purchase of aluminum and fiberglass fishing skiffs with outboard motors. This fleet of small vessels accounts for about 55 percent of the entire national fishing fleet and an estimated 70 percent of the annual catch.

A private sector fish processing and export business, consisting of six firms, has evolved. This sector has been assisted by a Government program to install eleven small refrigeration complexes along the length of the coast where fishermen can bring their catch. These stations have been leased to fish processors for use as collection points. All of the fish processing firms have installed their own processing plants for preparing frozen product for export. There are no other processing methods employed except fish drying.

The only commercial fishing effort in Oman is the operation of the traditional wooden hull dhows used mainly for gill net operations, and a fleet of eight modern trawlers which are foreign owned and crewed. The trawlers operate under a catch share agreement with the Government. The Government's share is 38 percent which is assigned to two processing plants.

The dhow fisheries have been constrained in their operations for lack of crews. The FEF subsidy plan has made it more attractive for dhow crews to operate their own easy to acquire boats in coastal waters. The youth of the coastal villages are not attracted to fishing as a career and Government policy forbids dhow owners from recruiting foreign fishermen. Thus, the substantial catch previously landed by the dhow fisheries has dwindled.

The main constraint to the development and exploitation of Oman's rich marine resource appears to be the lack of appropriate actions by the Government. Additional subsidies to coastal fishermen will not increase fish production; to the contrary, it will curtail incentives for the development of a more efficient and effective intermediate offshore fishing.

Present Government planning for the development of the offshore fishery involves the creation of a largely vertically integrated fishing company with a mandate to exclusively develop offshore fishing. Planning for this operation is ongoing. Government funds are being made available for the project in the amount of R.O. 15 million ($38.7 million).

The private sector processor/exporters are uniformly opposed to the plan and hope the Government will abandon the scheme in favor of improving development policy in favor of private sector development activities. They logically point out that Government policy in all other areas of industry is to encourage and assist private sector development.

This study has endeavored to analyze the current problems facing the fishing industry and its development constraints. Suggestions are offered for logical steps to be taken by both the Government and the private sector for development actions to achieve a proper utilization of this vast marine resource.

II. OMAN'S FISHING INDUSTRY - A PROFILE

Oman has an abundant marine fishery resource which is only marginally exploited, primarily by traditional fishermen using small vessels and simple fishing gear techniques.

The traditional fishery consists of an estimated 7,500 vessels manned by 13,500 Omani fishermen and produces about 104,000 mt of fish annually. This production is supplemented by a fleet of eight deep sea trawlers which are foreign owned and foreign crewed. These vessels range in size from 400 to 1200 g.t. and are licensed by the Omani Government to fish offshore beyond the 50 fathom depth line. During 1987 this commercial fishing fleet reportedly landed 10,956 mt of catch. The total marine fish landings for the year were about 115,000 mt with an ex-vessel value of R.O. 32.48 million ($83.8 million).[1]

The marine harvest consists mainly of valuable fin fish species, crayfish (spiny lobster) and cephalopods (squid and cuttlefish). Among the demersal species landed are highly valued groupers, snappers, bream and emperors. Kingfish (barred mackerel) account for over 22 percent of 1987 landings with a total of over 25,000 mt. Thunnus tonggol (longtail tuna) was the second most plentiful catch with 1987 landings of over 17,000 mt. Production of other tuna species, principally thunnus abacares (yellow fin tuna), which appear seasonally in heavy migrations along the coast from November through March, is gaining importance in the local fishery. A crayfish (spiny lobster) fishery has developed in the southern coastal area in recent years. The 1987 landings were said to be about 1,600 mt. This resource is being abused by over-fishing and uncontrolled capture of juveniles and females.

There has been one aquaculture project established by a private firm, Oman Sea Farms. They produce about one ton per month of prawns for the local market and export. They have installed a hatchery and have plans to expand. Until recently, all the post larval stock was imported to stock the 90 ponds, each with a surface area of 1,000 square meters. There is some production of sea shrimp in the Dhofar Region, but this is not considered to be a very plentiful resource.

Particulars of the various aspects of the Omani fisheries sector are discussed under the following appropriate headings.

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[1] See Appendix A for fisheries statistics. Statistical data used herein has been taken from sampling and observations by RDA International, Inc., an American consulting firm presently in Oman as advisors to the Director General of Fisheries.

A. Fishing Vessels and Fishing Methods

Aside from the commercial Korean trawler fleet, most of the Omani fleet of fishing vessels can be classified as small scale. Until 1977, the principal fishing method was gill netting from wooden hull dhows ranging in size from 30 to 50 feet. Smaller versions of the dhow, known locally as "houris," were also used extensively for gill netting as well as hook and line fishing. Close in-shore fisheries used a small boat made from reeds known as a shasha. In addition to vessels, beach seining is popular and quite productive with landings as high as 15-20 tons per haul, mainly of sardines.

The larger dhows fish some distance offshore and make three to five day voyages. Their principal catches are large pelagics such as barred Spanish mackerel, longtail tuna, yellowfin tuna, bonito bill fish and shark. Vessels of lesser size fish mainly during day trips within a range of five to seven miles offshore.

Since 1977 there has been considerable change in the Omani fishing fleet. That year, the Government inaugurated a boat and outboard motor subsidy scheme known as the "Fishermen's Encouragement Fund" (FEF). At that time, the subsidy was a 25% grant and a 75% soft loan to the fishermen towards the purchase of an aluminum boat and an outboard motor. The grant was later raised to 66.6%; the loan was lowered to 33.4% with no interest charge on the loan. Currently, the fund subsidizes 66.6% of the purchase cost of the boat up to a maximum of R.O. 500 ($1,300) and a maximum of R.O. 166 ($430) for the outboard motor. The Oman Bank for Agriculture and Fisheries (OBAF) administered the purchase orders and the collection of the balance until 1987, but now the program is handled directly by the Ministry. A local firm manufacturers fiberglass boats which are used exclusively in this program. Today there are over 4,000 of these aluminum and fiberglass skiffs in service, accounting for about 55% of the entire local fleet.

B. The Fishermen

The Omani coastal populations are traditional sea-faring people with the basic skills for a working life at sea. For the most part their skills are confined to fairly simple fishing methods because there has been no need to progress into more productive types of fishing activity. The greatest advancement in the sector has been the introduction of the motorized skiff. This has improved the quality of life of the fishermen in the sense that it provides a means of profitable day fishing in the resource-rich coastal waters as opposed to crewing on the traditional dhow and houri vessels on three to five day voyages.

Consequently, the skiffs have replaced the traditional vessels as the most important production units. Landings range from about 8 mt to over 25 mt per year. Profits range from R.O. 1,200 to about R.O. 8,000 ($3,000 to $20,000).[2]

Government policy forbids the recruitment of foreign nationals for employment in the traditional fishery sector. Because of the transfer of fishermen who previously manned the dhows to the small skiffs, however, dhow owners find it difficult to crew their vessels. As a result, many of these offshore fishing vessels are rotting on the beach. Although the Government's policy of subsidizing outboard power skiffs and restricting the employment of foreign crews has positive aspects, it has nevertheless greatly delayed the development of offshore fishery and the country's extended economic zone (EEZ). Local fishermen are not learning modern fishing techniques; skilled engine drivers, offshore boat captains and master fishermen are not being developed; millions in national earnings have disappeared from the once substantial fish landings from the dhows; and the country's boat building skills are in danger of being forgotten for lack of demand.

Although there is no supporting data, it has been observed that the youth in the coastal communities are not entering into fishing operations for a livelihood, and it is feared that the fisherman population is dwindling. The Omani society has become more affluent than it was a generation ago, and young men are more attracted to other careers which offer greater financial reward and better working conditions than fishing. This factor also reduces the work force available to the dhow owners and will be a constraint to the development of an offshore fishing industry.

The foreign trawler fleet has been operating in Oman for eleven years. Although it has been a part of their contract to train local fishermen, and they are quite willing to do so, there has been very little response to their on-the-job training program. It has been their experience that the trainees leave to work ashore after a few trips. The longest term for a trainee to stay aboard has been 18 months. Thus, there are no local crews available to man commercial fishing vessels.

In some areas, rights to territorial use prevail for resident fishermen. There seem to be no off-shore limits but, in practice, the limit would probably be out to the point of distance from the shore where they usually fish. These areas are especially guarded from intruders in the spiny lobster fishery.

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[2] RDA Reports by J. Povoly, "Economics of Artisanal Fishing in the Sultanate of Oman" June, 1986.

C. The Commercial Fisheries Sector

Presently, the only commercial fishing activity in the county is comprised of trawlers, working under an arrangement with the Ministry of Agriculture and Fisheries and supervised by the Ministry's Director General of Fisheries. There are seven Korean owned vessels which have been fishing Omani waters for about eleven years and one Taiwanese trawler brought in 1987. These vessels are all crewed and managed by foreigners. The owners are allowed to fish the off-shore waters beyond the 50 fathom line.

The entire operation is at the owners' expense. Thirty-eight percent of the volume of the catch is taken by the Government and the remainder is kept by the owners. Obviously, the vessel owners have found this to be a profitable arrangement as evidenced by the long tenure of the arrangement. The Government has also prospered by having an average 12,500 mt annual catch delivered without investment or operating risk.

Until very recently, the share catch fish from four of the vessels was delivered to Oman National Fisheries Co. (ONFC), where the product was prepared for export or distribution to local markets as determined by best market practice. Catch from the other four vessels was sold under contract to various fish dealers, mainly for local market distribution. The policy has changed in that the Government let their four vessel share out on bid and another fish processing/marketing firm, Ominvest Fisheries, now receives the share catch as the highest bidder.

D. Commercial Fish Processors and Marketing Sector

There are six major fish processing and export marketing firms operating in the country; they are all locally owned. All of these firms depend on the traditional fishing sector as a source of product except the two aforementioned firms, ONFC and Ominvest, which receive the Government's share of the foreign trawl catch.

There are a number of fish dealers engaged are in wholesale fish distribution to local markets. Two of these, Ibri Cold Stores and Ali bin Darwish, are fish merchants with quite substantial operations serving mainly inland communities.

The status, operating procedures and plans for the future of the fish processing and export marketing firms are discussed in anther section of this report.

E. The Fisheries Infrastructure

There has been very little fisheries infrastructure provided by the Government. There are few fisheries ports or improved fish landing facilities in the country, other than a commercial pier in the port of Muscat where the large trawlers land their catch. A portion of the new commercial port at Salalah was dedicated as a fishing port, but has since been taken over by the commercial port authority. A new fishing pier has been constructed at Masirah Island.

The Government (Directorate General of Fisheries) constructed eleven small marketing support facilities along the coast, from Muscat down to and including the Dhofar District. These generally consist of five to ten ton ice plants, small cold storage rooms and machinery for power generation. These facilities are rented to the private fish processing companies and are mainly used as fish buying stations under a program started in 1987.

Most of the catch produced by the traditional fisher sector is landed across the beach where fish buyers congregate to compete for the purchase of the catch. The buyers come with trucks carrying fiberglass insulated fish boxes to facilitate moving the fish to their processing plants or markets.

The export processing companies have all installed their own processing, freezing, and cold storage facilities; these are mainly located in the Muscat area, although two are in Salalah. Additional Government owned cold storage space is available in both places. These facilities were not installed, however, for the exclusive use of the fish processing industry.

III. THE GOVERNMENT SECTOR

The Ministry of Agriculture and Fisheries is charged with managing the exploitation and conservation of living marine resources; it develops policy and law. Implementation of policy and enforcement of fishery laws/regulations is delegated to the Director General of Fisheries (DGF). The DGF also has responsibility for all regular administrative tasks such as collection and analysis of industry generated data and licensing of fishermen and fishing vessels.

The law provides that the Ministry will set up an advisory organization to be known as The Council for Living Marine Resources and Management. The Council is to be chaired by the Minister and include other Ministers as well as the Chamber of Commerce and representatives of the fisheries private sector. Thus far, the Council has not been organized or convened.

A. Government Fisheries Policy

Government policy is vague in many areas of the industry and, according to the views of most of the fish processors, is mainly subject to the mood of the Ministry rather than well-defined policy. Following interviews with the DGF, one basic policy is clear, and that is the protection of the livelihood and life styles of the coastal population and the traditional fishermen. Under this broad policy, the Ministry aims to insure that the traditional fishermen are involved in the growth of the fisheries industry.

The Ministry views the development and exploitation of marine resources as necessary , but sees no need to accelerate the process. The DGF has pointed out that substantial development has taken place during the past ten years by getting the traditional fishermen into mechanized boats. Fish marketing and distribution has been aided by the construction of first class highway systems. This basic infrastructure has facilitated development and has led to increased demand for marine products for domestic distribution as well as export.

Government policy forbids employing foreign fishermen to work in the coastal fisheries. The Government fears skiff owners would be more inclined to delegate the boat operations to low cost subcontinent workers, and that the coastal people would lose their fishing skills as a result. This restriction does not apply to foreign fishermen brought into the country to demonstrate new fishing techniques and teach new skills which would be of benefit to the people in the coastal community.

In the same context, the DGF has not encouraged the private fish processing firms to extend their operations to vessel ownership and fish production activities. This policy should be relaxed as it is becoming obvious that the traditional fisheries cannot meet the volume demand of the fish marketing sector.

Aside from this basic policy of protecting the traditional fishery, the Government emphasizes marine resource conservation. It is very aware that resource development must be undertaken on the basis of the best available scientific evidence of fish stocks and yields to ensure continuance and renewal of the resource.

The policy on foreign investment in any form is also vague insofar as fisheries are concerned, even though the rules are clearly stated elsewhere by Oman's Ministry of Commerce and Industry. The DGF has explained that foreign entities have never tried to establish joint ventures or applied for a license permitting them to fish in the offshore EEZ. Should a request for this type be presented, it would be considered on individual merit, and appropriate operating permits and restrictions would become a part of the licensing agreement. There are no set license fees for foreign fishing or joint venture operations. The DGF also explained that licensing of foreign vessels would likely be confined to the capture of migrating pelagic species, such as tuna and bill fish.

B. Government Assistance from Foreign Advisors

Only during the past twenty years has the Government recognized that fisheries are a renewable resource of vital importance to the national economy. The importance of adopting appropriate roles for management and development were not recognized previously. Considerable outside assistance was needed to implement and man the key posts. In the early 1970's, extensive assistance was provided by international agencies such as the FAO Fisheries Development and the World Bank, and by U.S., British and Scandinavian bilateral agencies.

The USAID's sponsorship of in-depth studies and stock assessments under the name of The Mardella Report, submitted to the Government of Oman in 1976, was particularly helpful in providing an initial assessment of the overall marine resource and suggesting fisheries policy and resource management alternatives. The Omani-American Joint Commission for Economic and Technical Cooperation has sponsored an on-going advisory firm, RDA International. RDA has provided a staff of eight advisors attached to the DGF's office. This program commenced in 1983 and will continue through 1989. The Joint Commission has also sponsored a team of six marine scientists from Oregon State University, who are manning the DGF's new marine science center and undertaking extensive studies of the marine life in Oman's waters.

C. Fisheries Research

The recent commissioning of the Marine Science and Fisheries Center and the opening of the Sultan Qaboos University demonstrate the Government's recognition of the importance of marine research. Presently, the staff from Oregon State University is providing assistance to plan and implement research programs while training local counterparts. In addition, a large number of Omani students are currently taking courses at the International Center for Marine Resources Development at the University of Rhode Island in the United States.

D. Fisheries Training and Educational Programs

The Department of Fisheries Science and Technology at Sultan Qaboos University has just been established. The program will be directed toward degrees in fisheries science. There are several other local institutions offering training in relevant fisheries subjects such as seamanship and diesel engine operation/maintenance. There are no technical schools for the training of fishing crews and related skills. On-the-job training has been available to Omani nationals aboard the Korean trawler fleet, but there has been a general lack of interest by selected trainees.

It is obvious that the present traditional fisheries industry does not call for many skills beyond net mending and outboard motor repair, so there is really no call for a technical training program at this point in time. Skills required for advanced fishing methods will likely be passed on by foreign fishermen brought in to develop the more sophisticated fishing techniques.

There is a need for training of extension workers at an educational level greater than fishing vessel crews, but not to the level of university degree. The Government has yet to address this area of required training.

E. Planning and Industry Support Programs

There is clearly an urgent need for a balanced and unified long-term policy for development of the fishing industry in Oman. The lack of a clear-cut policy is frustrating to the private sector at a time when many businessmen are eager to get on with the development of offshore resources. The present fishing methods are not inspiring the country's youth to seek a career in the industry. Introduction of modern mechanized vessels promising greater financial reward is needed.

Recently the Government announced plans to create a large quasi-Government fishing company with the exclusive right to develop offshore commercial fishing. Although the exact nature of its operations has not been planned, it has been implied that foreign vessels will be chartered to demonstrate the viability of large scale commercial fishing. There is a tentative funding commitment of about U.S. $37 million. The company would be at least 40 percent owned by the Government and the position of chairman would be filled by the Government. The Oman National Fisheries Company, a partially Government owned fishing company, will be absorbed into the new organization.

Many aspects of the operation and jurisdiction over offshore fisheries development by the new company are unclear. The planning process is ongoing, the Ministry cannot clarify specific issues to the private sector. This puts all planning by the private sector on the shelf for the time being.

Considering that there is no record of success of any Government controlled fishing project any place in the world, this project is a very bold move on the part of the Government and the private sector investors.

Government support programs such as the boat/motor subsidy program and the installation of ice plants/storage facilities along the coast have been mentioned in the report previously. Many have opined that the subsidy program is an obstacle to fisheries development in that it has brought the fishing effort more in-shore as opposed to developing the offshore resource. The Government's "no hurry" attitudes toward developing the offshore fishery illustrate this concept. It should also be pointed out that a good living can be made by using these simple fishing methods, a situation peculiar to the resource-rich Omani waters.

F. Resource Data

Present yield estimates are based on studies of test fishing results by research vessels and observations by various consultant teams during the past 15 years. Although the estimates for some of the species are based on very little information, they do represent a basis on which to proceed. There is no basis for estimates of yield for the large migratory pelagics such as tunas. Estimates can be made following actual fishing effort.

It is generally recognized that the EEZ resources are abundant and unexploited by Omani fisheries. All indications are that concentrations of skipjack and yellowfin tuna offshore are likely to be very substantial during a five month season, November through March. The season may be longer off the southern coast. The present estimated tuna yield could be as much as 70,000 metric tons

annually. The sustainable yield of other important species is estimated as follows:

Common Name		
Silver Roughy	Hapolstethus SPP	Plentiful but not estimated
Lantern Fish	Benthosoma SPP	1-2 million mt
Squid	Loligo SPP	Plentiful, not estimated
Kingfish	Scomberomorus Commerson	30,000 mt

There are other species appearing in quantity, including sardines with estimated annual yield of perhaps 250,000 mt. The catch rate per unit effort (CPUE) of demersal species also indicates that a good deal of additional effort can be sustained.

IV. FISHING INDUSTRY SUPPORT SERVICES

A. Banking Facilities and Services

There are sixteen commercial banks doing business in Oman including major international banks such as Citibank, Standard Chartered and The British Bank of the Middle East. There are two Government banks, the Oman Bank for Agriculture and Fisheries, S.A.O. and the Oman Development Bank.

The Agriculture and Fisheries Bank administered the Government's subsidy program for the distribution of outboard motors and fishing skiffs to the coastal fisherman until 1987. During the seven year period from 1980 through 1986, they processed subsidy loans for nearly 12,000 beneficiaries, 5,479 vessels and 10,542 outboard motors. Total loan value was R.O. 4.073 million (about $10.5 million). The interest rate applicable to these loans is two percent p.a. for full-time fishermen and three percent p.a. for part-time fishermen. The bank claims a loan recovery rate in excess of 90 percent. This bank deals with local private sector fisheries, but cannot make loan funds available to foreign interests' joint venture (each as is). For project financing, the bank requires a minimum of shareholder paid-in capital of 25 percent of total required capital. It will take up to a 20 percent equity position on projects which are considered viable.

Regular interest rates are six percent p.a., with a pay-back period of up to ten years, depending on the financial rate of return indicated in the feasibility studies.

The private banks are willing to make loans for the development of the private fishing sector, and they are, in fact, looking for ways to utilize their vast cash resources inside the country. Bankers interviewed are quite aware of the potential of the fishing industry, and they are providing services to the fish export firms. Their principal activity is in packaging credits, and they allow clients to borrow up to 80 percent against a foreign letter of credit.

The Central Bank sets the ceiling interest rate, which is currently 10.5 percent p.a. Of course, the rates are negotiable depending on client credit standing and the volume of the loan.

Private banks prefer to deal with larger private sector projects with loan requirements for plant, equipment, vessels and other tangible assets in the range of $500,000 or greater. The Government banking institutions are taking care of the smaller investors in the fisheries sector. These private banks are quite willing to work with foreign investors, joint venture or otherwise. Loan amortization periods depend on the rate of return indicated by the feasibility studies.

In summary, it appears that full financial support for the development of the private sector fishing industry is available in Oman.

B. Export Shipping Services

There are at least twelve major shipping companies calling regularly at Muscat and providing service to ports of the world, mainly container service. In addition, shipping arragements can be made via the nearby Port of Dubai.

Muscat is the only regular port of call for foreign vessels in Oman, although there are excellent deep water port facilities in the south of the country at Salalah. Inducement required for a call at Salalah port is 20 containers. Although there is no export of fishery product in that volume, it could be developed if offshore tuna fishing would start in that area. Otherwise there is a $1,000 charge for truck delivery of a container from Muscat to Salalah and return.

International shipping lines such as American President Lines, Williline, OOCL, Nippon Yusen Kaisha, Barber Line and Scan Carriers provide regular liner services. A sampling of refrigerated 40 ft. container rates are as follows:

OMAN TO	PER CONTAINER	EQUIV PER MT
Columbo	$3,500	$145
Bangkok	5,000	208
Tokyo	4,500	185
United Kingdom	3,500	145
European Ports	3,500	145
U.S. West Coast	4,500	185
U.S. East Coast	5,500	230

Airfreight Europe or Japan - $1.30 per kg.

C. Boat Building and Repair Service

There are no vessel repair yards, marine rails or dry docking facilities in Oman. These facilities and services are available in nearby Arabian Gulf ports. According to the Korean Overseas Fishing Company (KOFC), these services are satisfactory for their fleet of trawlers which range in size from 400 to 1,500 gt.

All the ordinary ship's supplies such as nylon rope, wire rope, paint and hardware items are available in Muscat. Electronics repairs can also be done but the vessels should carry a good range of spare parts. American Bureau of Shipping, Lloyds and Bureau Veritas survey services are available in the Gulf area.

A local company, OHI-Marine Division, builds fiberglass boats in Muscat. Outboard motor repair services are readily available all along the Omani coast.

Victualing can be done in Muscat and Salalah but prices are extremely high compared to most ports, especially for meats. As an example, ground beef retails for about $10 per kilogram.

Bunkering is not a problem anywhere in the area although fuel products are much cheaper in the Gulf than in Muscat. For example, regular diesel at Muscat is R.O. 133.00 per mt ($344) while at nearby Dubai the price is $170.

D. Fisheries Development Assistance

Other than the Government's boat/motor subsidy scheme and construction of the eleven small refrigeration complexes along the coast, there has been very little in the way of development assistance to the private sector. This seems partly due to a lack of any clear cut fisheries development policy and perhaps a need for understanding appropriate development procedures. These factors, coupled with Government attitudes of "by and by" development of offshore resources, places development assistance at a low priority.

From what has been learned from the private sector fish processing and marketing firms, the Government will soon have to rethink its policy on development assistance and take some positive actions in that direction. During the past year, ONFC has undertaken two research activities at their own expense. These involved the construction of a number of fish attraction devices (FADS) in offshore areas to ascertain if they would be effective in concentrating the schooling of large pelagics, mainly tuna. They also brought in experienced aerial fish spotters to fly over the offshore waters and observe fish concentrations. These are activities usually undertaken by fisheries departments so that the research results can be available to all interested people in the

industry. In this case, the survey results will be for ONFC use only.

This should be a strong signal to Government that the private sector is keen to develop Oman's offshore resources. They do not believe that the Government's plan to organize and operate a large fishing company to undertake such research will involve them, and they are quite willing to carry out new production experiments even at their own expense. Considering the unutilized wealth in Omani waters, the Government should recognize the potential and support such research. Certain actions are suggested in the next section of this paper.

E. Oman Chamber of Commerce

The Chamber is well informed on matters concerning the fisheries sector. It maintains a fisheries committee which includes representatives from the private sector. It is keenly aware of the substantial role a developed fishing industry can play in the national economy.

The Chamber stands ready to assist the private sector. The prestige of its office can be useful in representing industry problems to appropriate Government agencies. It can also be helpful in identifying export markets.

F. Foreign Investment Policy and Rules

The Omani Government maintains a generally favorable attitude toward foreign investment and especially encourages foreign participation in fisheries, agriculture, minerals and manufacturing. In these sectors foreign firms are treated nearly the same as local firms and are eligible for a variety of investment incentives. The following are some of the more important incentives:

- Total or partial exemption of all taxes for five years following incorporation. Longer exemption periods may be negotiated if the Government deems the project vital to national development.

- Total or partial exemption from customs duties on imported raw materials and plant/equipment.

- Restrictions on imports of foreign goods similar to those produced by the local industry.

- Subsidies towards the cost of feasibility studies if the subject project is considered important to the national economy.

- Relaxation of entry visa and work permit restrictions and other established procedures.

Foreign investment in Oman is governed by the Foreign Business and Investment Law of 1974. The broad rule is that Omani nationals must own at least 35 percent of any enterprise. There are many exceptions to this rule, however, depending again on the importance of the project to the national economy.

An application by a foreign investor to the Ministry of Commerce and Industry for authorization to engage in a trade or business in Oman or to form or acquire an interest in an Omani commercial company must meet a number of basic requirements. These are available in detail in a booklet entitled TAX AND INVESTMENT PROFILE, published by Saba & Co., an affiliate of Touche Ross International of New York, or from a paper produced by the U.S. Embassy's Commercial Attache in Muscat entitled INVESTMENT CLIMATE STATEMENT, Sultanate of Oman (March 1988).

Taxes are moderate. Firms with foreign participation of between 50 and 65 percent are subject to a flat tax rate of 20 percent for all profits in excess of $52,000. This would follow any tax exemption period as may be granted by the Government. There are no withholding taxes, estate tax, gift tax or dividend tax.

The guidelines for joint ventures state that the operation must be at least 75 percent Omani owned (or 51 percent Omani owned if special permission is obtained) and that the venture must have a capital base of at least $390,000 (or $78,000 for firms with special permission). There are no Government regulations concerning management control of the operations.

There is no history of foreign investment in Oman's fishing industry. The aforenoted Government attitudes, incentives, and requirements reflect the policy of the Ministry of Commerce and Industry and do not necessarily reflect the policy of the Ministry of Agriculture and Fisheries. It would be wise for potential investors in the fisheries sector to first have a dialogue and understanding with the Ministry and the DGF before pursuing licensing with the Ministry of Commerce and Industry.

G. Labor Supply

Oman's domestic labor supply is very limited. Although Sultan Quaboos has devoted a large percentage of the nation's resources to the improvement of education, the effects have not yet been fully felt. Less than 20 years ago Oman was one of the world's poorest and most backward nations, with a literacy rate of less than ten percent. While the situation is changing rapidly, educated Omanis are still in short supply.

Most private employers import laborers. Unskilled and semi-skilled labor is generally imported from the subcontinent or the Philippines, while managers and technical people are hired from the United States or Europe. Presently, there is a trend to hire more technical type employees from the Philippines.

Omani labor laws give priority in all hiring decisions to Omani nationals, but laws are weakly enforced. One factor inhibiting Omanization in the labor market is the reluctance of young people to accept what they consider to be demeaning jobs. The Sultan has recently begun to speak publicly on this issue and to encourage young Omanis to participate in all sectors of the economy. Those observing the labor problems of the fishing industry feel that there is very little interest by young Omanis in pursuing fishing as a livelihood.

People in the fish processing business calculate unskilled labor cost at R.O. 5.000 per day ($13.00), including board/lodging expenses and annual round trip air fare for home leave.

V. THE PRIVATE SECTOR

An objective look at the fisheries sector in Oman indicates that many actions are needed to develop the fishing industry so that it provides the benefits the country deserves from its rich marine resources. The development of this sector is entirely out of sync with the dynamic achievements made here during the past 20 years of nation building. What are the problems? Where has development planning gone wrong?

The positive aspects of resource development are clear. During the past 20 years, there have been numerous consultant missions from international agencies visiting the country to assess the marine resource and provide advise on how to exploit and manage it. Volumes of reports have been written, all agreeing that Oman is blessed with an abundant stock of high value fish species. There are no natural constraints to harvesting the resource other than a few weeks of choppy seas during the summer monsoon season.

The negative aspects of resource development are somewhat more complicated. First, Oman's fisherman are not equipped in any way to conduct modern fishing operations. They do not have the skills to undertake production efforts beyond the simple methods now employed. Secondly, the Government institutions charged with fisheries development do not seem to recognize the actions required for development and the corresponding priorities. Government agencies have not produced clear policies, and this impedes development by the private sector.

All of the private sector representatives interviewed during the course of this study agreed that the Ministry and its DGF have consistently failed to respond on a timely basis to requests for approvals; such approvals are needed before they can proceed with the simplest of plans. One company found that approval for a trail fishing program took four months; by that time he received approval, the season for the planned experiment had passed. This seems to indicate a lack of clear policy guidelines, as well as clear procedures.

The private sector in Oman is keen to develop marine resources and is willing to take considerable risk to do so. The Government will need to review its thinking on certain development issues, as well as its attitudes toward service to the private sector. Positive development policy is vital and needed immediately.

A. Immediate Problem Areas

The private sector fish processors/exporters as well as domestic fish marketing firms are not able to procure enough product. Two of the larger fish processors, ONFC and OMINVEST, have an advantage because they receive 38 percent of the catch produced by the foreign trawler fleet, but even these firms want more product.

Competition for fish supply from the traditional fishing fleet is keen. This is good for the fisherman as its keeps fish prices high. It is bad for the industry for the following reasons:

- The fishermen have no incentive to take good post harvest care of their catch. They can sell everything, thus Omani exports are quite often of a lesser quality and cannot command a good market price. This is particularly true of spiney lobster exports.

- The traditional fishery cannot supply the volume of catch required. Export processors have sizeable investments and high fixed operating overheads and need more raw product to keep their operations viable.

- The fishing dhows, which could contribute substantially to the catch volume, are unable to get crews because the Government's subsidy programs for coastal fisherman have transferred dhow crews to the inshore skiff fisherman. Government policy will not allow dhow owners to bring in foreign crews.

- The traditional fishermen are not disciplined and have no regard for resource conservation. Although the Government has outlawed the use of tangle nets for spiney lobster fishing, they continue to be used. Fishermen do not release juveniles and berried females. This resource will be in danger if controls are not enforced.

There is no immediate solution to the problems of traditional fishery. The numbers of fishermen are dwindling because the youth are looking for more attractive and satisfying careers. The skills required for crewing the dhows will soon disappear. This sector will likely shrink in number and production for lack of local manpower.

B. Development Problem Areas and Recommended Cures

It can be safely assumed that there is an adundant marine resource. There is also a good market domestically and abroad for the catch. The banking sector has the resources and is willing to support viable fishery projects. The private sector is unanimously ready and willing to expand into fish production.

Constraints to the development of the fishery sector appear to lay solely on the Government's doorstep. The Government has not pursued a program to develop the fishery sector. In addition, the Government has not undertaken any of the usual actions such as:

- supporting trial fishing methods and upgrading fishing gear techniques;
- establishing fishing industry training institutions to teach basic skills to fishermen or fish processing workers;
- subsidizing feasibility studies for promising fishery projects;
- pursuing a licensing program to induce foreign fishing vessels to assist with the development of the pelagic fishery in the EFZ;
- establishing an inspection program to set and enforce quality standards for export fishery product; and
- streamlining the procedures for approval of license applications.

The present Government development program does not appear to address any of these areas. The only visible programs at this time appear to involve:

(i) continuing the subsidy to coastal fishermen for the purchase of skiffs and outboard motors; and

(ii) creating a super vertically-integrated fishing company to exclusively undertake all aspects of industrial fisheries development.

These plans will not serve as a solid basis for development. The problems with this kind of planning are easily recognized. Wise council would urge the Government to abandon these programs for the following reasons:

C. Subsidy Program

The coastal fishermen have already been sufficiently coddled. This program has been followed for over 10 years and the traditional fisheries have been totally mechanized and developed. Fishermen who want to work can easily afford replacement of their equipment. Continuing this program will not achieve any development goals and is not likely to cause any greater fish production. It would also continue to limit the development of the intermediate offshore dhow fishing methods by encouraging fishermen to continue their inshore fishing occupations.

D. The Government Sponsored Quasi-Public Monopoly

The formation of this type of operation will discourage the development of a broad based fishing industry. This plan fails to recognize that there is already a private sector in the country that is capable of planning and implementing development fishing projects. The banking sector is ready and willing to support private sector activities. All that is required is a little Government support and guidance for development of the industry to proceed.

The plan also appears to be contrary to the Government's policy of encouraging a strong private sector. It leaves the private sector wondering what their future will be and how they will be able to compete with a monopolistic giant.

It is reputed that R.O. 15 million ($38.7 million) has been earmarked for funding the planned components of the project. It is suggested that a portion of this would be better utilized to support private sector development in the form of subsidies for feasibility studies and financial assistance to intermediate sized fishing ventures to upgrade the present coastal fisheries. More specifically, some of the activities which should be targetted for assistance include:

- Subsidizing the foreign exchange cost of technical assistance required to conduct feasibility studies in connection with fisheries development projects.

- Underwriting the cost of experimental fishing techniques. This would include the expense of chartering foreign fishing vessels and crews to demonstrate the viability of possible fish production techniques.

- Providing qualified naval architects, boat builders and master fishermen to work with the local boat builders to effect suitable design changes and equipment additions such as electronics and hydraulics. The efficiency of local vessels, and the working and living conditions for fishing crew should be improved.

- Encouraging the formation of small capital stock private fishing companies in fishing communities and assisting them with grants and soft loan schemes to acquire vessels and fishing gear suitable for intermediate offshore fish production. The start-up of operations should be subsidized by providing extension services consisting of technical assistance for management and introduction of more productive fishing techniques. This sort of action is needed to get the coastal fishermen back to sea and to play a more productive role in national fisheries.

- Assisting and encouraging local fish processing and export firms to establish small fleets of fishing vessels, as well as a program of share fishing with crew recruited from among the present coastal fishing communities.

All of the aforementioned activities could be undertaken under the umbrella of a new fisheries development policy and by strengthening the vital function of the Ministry and the DGF, especially in the areas of resource management, monitoring of catch, enforcement of fishing laws and enforcement of post harvest fishing handling/processing to ensure quality.

A major development thrust is needed for the creation of the intermediate fishery. The coastal fishery is already overdeveloped and the offshore industrial fishery development will create its own momentum once a Government policy is announced which provides incentives to the sector.

E. Scope for Fisheries Resource Development

Although it is generally assumed that the marine resources in Omani waters are abundant, there is much to be done to actually prove the viability of various methods of fish capture. The safe approach is to undertake actual trial fishing before plunging into heavy investment programs for vessels and equipment. Research vessels operating in Omani seas have made a valuable contribution to the identification of fish species and, in some case, estimates of annual sustainable yields. Much more knowledge is needed however. For example, the following information would be needed regarding the declared abundant tuna population:

- What are the seasonal aspects of the fishery?

- What are appropriate book depths for offshore yellowfin and bigeye tuna species?

- Can skipjack and longtail tunas be effectively harvested by purse seining? By live bait pole and line fishing?

- Will fish attraction devices (FADS) be effective in concentrating schools of tuna?

These questions can only be answered by undertaking trial fishing operations by experienced fishing crews with appropriate vessels and fishing gear.

In line with Government policy, the development of the resource should involve, to the extent possible, the traditional fisheries sector. Possibly the best approach would be to use a dhow type vessel with mechanized deck gear to undertake experiments in an intermediate offshore zone in the range of 5 to 50 miles from the coast. Appropriate fishing gear types for trail should include:

(i) Gill netting This gear type is already used locally but not with a power winch for net recovery.

(ii) Live bait pole and line This should be an effective capture method for small tuna varieties such as skipjack and longtail tuna.

(iii) Mini Long Line There has already been experimental use of this gear type in Oman and there have been good indications of its viability for capture of large tunas, sharek, and billfish.

(iv) Lobster Pots To set lobster pots in deeper water using mechanized pot haulers. This may prove very beneficial to the management of the spiney lobster resource and may also improve the quality if circulating sea water holding tanks are used.

(v) Squid Jigging There is reported to be good squid resources, especially off the southern coast. A dhow type vessel could be outfitted with automatic squid jig gear and mercury lights to conduct experiments. This is a high value marine product.

(vi) Trawl Fishing Again, a dhow type vessel could be arranged and equipped for side trawl fishing for capture of demersal fish species.

(vii) Fish Attraction Devices (FADS) These are recognized world wide as being very effective in concentrating schools of pelagic fish. They have been demonstrated in Oman and found useful. In actuality, the setting of these rafts along the 800 to 1,000 fathom line offshore could benefit the pole/line, mini long line, and gill netters as well as large tuna purse seine vessels. The tuna seiners set their net in the vicinity of the FADS during darkness hours. The intermediate fishery can fish in the area during the day.

The offshore commercial fishing effort would involve large trawlers and tuna purse seiners. The offshore trawl fishery has already been proven by the Korean fleet which has been fishing here for the past eleven years. Tunas purse seining is likely to prove highly viable judging from evidence by recent local fishing efforts. As previously noted, there is much to be learned, and education lies solely with trial fishing efforts.

Tuna purse seine fishing requires a large capital input for purchase of the vessel and operating expenses, but it is financially very rewarding in proven tuna fishing areas. Tuna purse seiners range in size (fish tank capacity) from 250 to 2,500

tons. The required size of the net (usually about 1,200 meters long by 200 meters deep) is the same size for all vessels. The practical size of the vessel is determined by how far the vessel must fish from its catch landing base. For an Oman operation, a vessel in the 300-500 ton capacity range would be appropriate considering the close proximity of the fishing grounds.

The cost of a new vessel of this suggested tonnage class, fully equipped and ready to fish, would be about $5 million. Because of the favorable prices and market, it would be difficult to find a suitable second hand vessel. They are all making money and are not for sale.

The only yardstick for judging the probable viability of an Omani tuna purse seine fishing venture is to examine the French and Spanish purse seiners operating out of the Seychelles. They are said to be averaging a 20 ton catch per day with annual production of about 4,000 mt per vessel. Using an ex-vessel price of $950 per mt for a mix of yellowfin, skipjack, longtail and bonito, the gross per vessel earnings are about $3.8 million.

Before investing in vessel and equipment, the purse seine fishing viability should be carefully assessed, including the seasonal aspects and catch rates. To do this, it would be best to make an arrangement with a foreign owner to bring in a crewed purse seine vessel to undertake actual fishing operations for a full year. This should be a Government subsidized exercise. Biologists from the Marine Research Center should be aboard as observers.

The vessel owner should be offered an arrangement along the following lines:

- He would supply a fully equipped vessel and an experienced crew.

- Oman would cover all costs of vessel delivery and direct operating expenses.

- The owner and Oman would share equally in the catch proceeds.

Included in the operating expenses would be the construction and setting of FADS (about 40), equipping and outfitting a FAD patrol vessel (a dhow type would do) and providing periodic air spotting service. The experiment should commence about one month in advance of what is considered to be the beginning of the tuna season.

F. Foreign Involvement in Fisheries Development

The various development programs required cannot be achieved without considerable input from foreign fishermen and management people.

Following trial fishing and proving fish production possibilities, it is likely that foreign fishing companies would be interested in joint venture proposals. These would be appropriate for the large commercial fisheries, such as purse seining and trawl fishing, because Oman does not have the fleet management nor the required crewing skills.

The intermediate sector fishery would not be an appropriate for foreign joint venture arrangement. Foreign fishermen with appropriate skills would need to be recruited for the implementation of these projects, but the actual skills could be learned by local people within a relatively short period. Required investment in these types of fisheries are modest and easily handled locally.

G. Other Fisheries Sector Opportunities

Fish processing for export has already been established. This industry has made good progress in contacting foreign markets and learning the requirements of packaging, freezing and quality. The industry has been constrained, however, by the lack of control over post harvest fish handling and as a result must settle for selling prices as much as 40 percent lower than those realized by countries with a reputation for producing high quality product. This situation can be improved by involving local processors in the fishing business so that they can control quality and force local fishermen to take better care of their catch.

There is an ongoing attempt to establish an aquaculture industry. Oman Sea Farms has developed an area of about 9 ha of ponds and established a hatchery for producing shrimp fry. The project has made progress, but at this point the viability of shrimp culture has not been proven.

Fish canning is not likely to be a viable industry in Oman. It is a labor intensive industry and uses large quantities of fresh water in the processing procedures. The development of the fish canning industry is taking place in countries with a low cost labor market such as Thailand, where labor cost is about R.O. 1 per day ($2.60).

Fishmeal manufacturing may be an appropriate project for Oman. There is reputed to be a local sardine resource with annual sustainable yield of at least 250,000 mt. A fishmeal plan utilizing 100 tons per day raw product input would produce about

20 tons of fishmeal daily. Ready market for fishmeal could be found within the region.

Dried fish processing could be expanded. Shark fins, sea cucumbers and dried squid are all high-value products. Finfish species such as lizard fish and anchovies are plentiful in local waters and have good market value in Singapore, Hong Kong, and Thailand.

H. Conclusions

There are many opportunities for establishing viable fishing enterprises for the benefit of Omani fishermen, the business sector and the country as a whole. In addition to supplying food to the local population, the combined effort of fish capture, processing, and export marketing could easily produce $100 million annually in foreign exchange earnings.

The marine resources, if properly managed, can continue to provide these benefits to many generations of Omanis. It would be timely for the Government of Oman to formulate a sound fisheries development policy, utilizing the broadest possible base of contributing sources from the business and fisheries sector, to bring the industry to the level of its potential.

SUMMARY

FISHING STATISTICS

Summary statistics for the Fisheries of the Sultanate of Oman for 1985, 1986, and 1987. Landings are estimates based on samples taken at key sites in each statistical region. The numbers of vessels are based on counts made in early 1985 and at the end of the year, 1987. The numbers of fishermen were estimated based on average crew per vessel and the number of vessels counted in each region.

REGION/SOURCE	Numbers of Fishing Vessels			Estimated Numbers of Fishermen Associated w/Vessels			Total Estimated Landings (mt)			Estimated Values (R.O. MILLIONS)		
	1985	1986	1987	1985	1986	1987	1985	1986	1987	1985	1986	1987
MUSANDAM	610	527	643	1,500	1,476	1,063	1,568	1,515	1,852	0.35	0.34	0.38
BATINAH	4,986	5,014	3,748	4,060	4,724	4,076	19,331	20,444	26,515	3.18	3.38	4.38
CAPITAL	1,371	1,283	858	1,820	1,750	1,292	10,706	11,596	12,274	2.36	2.77	2.82
N. SHARKIA	815	1,099	828	2,040	2,553	4,011	16,620	9,206	22,521	5.88	3.44	7.10
S. SHARKIA	531	296	593	910	703	1,758	14,593	21,515	29,224	5.23	7.08	11.10
DHOFAR	901	901	764	1,370	966	1,314	18,707	18,500	11,669	4.84	4.80	4.24
Total for Traditional Fleet	9,214	9,120	7,434	11,700	11,972	13,514	81,525	82,776	104,055	22.34	21.83	30.02
Total for Industrial Fleet	8	8	8	300	300	300	13,368	13,561	10,956	2.70	2.73	2.46
NATIONAL TOTAL	9,222	9,128	7,442	12,000	12,272	13,814	94,893	96,337	115,011	25.04	24.56	32.48

* The ex-vessel value was based on year-specific average prices for individual species groups.

Appendix 1

FISHING VESSEL CENSUS

Numbers and distribution of fishing vessels in each of the five statistical sampling regions and Musandam. Boat counts from an aerial survey were used for 1985 and 1986. The number of vessels in 1987 was based on a beach survey conducted in December 1987 and January 1988. Numbers of vessels for the Musandam were provided by the Musandam Development Commitee.

Vessel Type	Batinah Region			Capital Region			N. Sharkia Region			S. Sharkia Region			Dhofar Region			Musandam Region		
	85	86	87	85	86	87	85	86	87	85	86	87	85	86	87	85	86	87
Shasha	2866	2371	1331	0	10	2	0	0	0	0	0	0	0	0	0	0	0	2
Houri	387	496	460	532	411	258	338	71	224	427	23	163	64	632	29	0	0	1
Dhow	0	0	0	0	1	0	182	252	182	27	27	93	3	3	22	225	225	168
Skiff	1485	2002	1894	811	861	580	295	776	422	77	246	337	834	266	713	385	302	55
Other(1)	230	145	63	28	0	18	0	0	0	0	0	0	0	0	0	0	0	409
	4968	5014	3748	1371	1293	858	815	1099	828	531	296	593	901	901	764	610	527	635

	85	86	87
Shasha	2,866	2,381	1,333
Houri	1,748	1,633	1,135
Dhow	437	508	465
Skiff	3,877	4,450	4,001
Other	258	145	490
TOTAL VESSELS:	9,186	9,117	7,426

Note: (1) 'Other' vessels in Batinah and Capital consists of Bedan, which have no full-time crew as they are used only for setting beach seine nets during the sardine season. 'Other' in Musandam refers to vessel types not normally encountered in other regions of Oman.

Appendix 2

ESTIMATED 1987 FISH LANDINGS

Total landings for the year 1987. Traditional fleet and industrial fleet landings, by major species group and statistical sampling region (where available) area presented. Total estimated landings were approximately 40% higher than those estimated for 1986.

TRADITIONAL FISHING FLEET

	KINGFISH	TUNA	SMALL PELAGIC	LARGE PELAGIC	SHARK	HAMOOR	DEMERSAL	CRAYFISH	OTHER	TOTAL
BATINAH	1441	3457	15726	1645	946	360	2569	2	369	26515
CAPITAL	1394	6370	1722	1300	487	235	666		100	12274
N.SHARKIA	7236	9754	404	1386	1868	312	1431	88	42	22521
S.SHARKIA	15239	6551		2325	3059	228	1139	374	309(1)	29224
DHOFAR	24	312	9480	143	31	98	351	1093	137(1)	11669
MUSANDAM	6	57		24			1765			1852
SUB-TOTAL	25430	26501	27332	6823	6391	1233	7921	1557	957	104,055

INDUSTRIAL TRAWL FLEET

	KINGFISH	TUNA	SMALL PELAGIC	LARGE PELAGIC	SHARK	HAMOOR	DEMERSAL	CRAYFISH	OTHER	TOTAL
ALL REGIONS										
KOFC	38	32		3	24		3556		4442	8095
ONFC									2861	2861(2)
SUB-TOTAL										10,956

TOTAL ESTIMATED LANDINGS FOR OMAN, 1987

	KINGFISH	TUNA	SMALL PELAGIC	LARGE PELAGIC	SHARK	HAMOOR	DEMERSAL	CRAYFISH	OTHER	TOTAL
ALL SOURCES	25468	26533	27332	6826	6415	1233	11477	1557	8260	115,011

(1) Includes shrimp and abalone landings
(2) Data from ONFC annual report

OMANI MARINE PRODUCT EXPORTS

1986 Foreign Trade Statistics

Destination	Value R.O.	Value U.S. Equiv	Quantity (mt)
1. Fish - Fresh or Chilled			
Kuwait	17.140	44.241	46
Qatar	23.698	61.140	111
Saudi Arabia	118.790	306.478	445
United Arab Emir	40.545	104.606	148
N. Yemen	300	775	1
	200.476	517.240	751
2. Fish - Frozen			
Bahrain	58.528	151,002	77
Canada	10,800	27,864	50
France	445,508	1,149,410	75
Greece	10,934	28,210	22
Iran	200	516	1
Iraq	270	697	1
Japan	403,567	1,041,203	844
Jordan	241,920	624,154	630
S. Korea	3,275,646	8,451,167	8,474
Kuwait	262,433	677,077	583
Lebanon	21,255	54,838	64
Qatar	213,777	551,545	849
Saudi Arabia	960,161	2,477,215	3,598
Thailand	12,500	32,250	25
U.A.E.	500,870	1,292,245	1,725
United Kingdom	96,237	248,291	17
U.S.A.	614,138	1,584,476	115
	7,134,040	18,392,160	17,150
3. Fish - Dried Salted			
Qatar	8,872	22,890	27
Saudi Arabia	300	685	1
United Arab Emir	7,730	19,943	33
	14,902	43,518	61

Destination	Value R.O.	Value U.S. Equiv	Quantity (mt)
4. Seafoods - Lobster, Crab, Shellfish			
Canada	100,599	259,545	15
Cyprus	120	310	-
France	316,609	816,851	55
W. Germany	65,433	168,817	11
Hong Kong	72,420	186,844	15
Japan	73,529	189,705	22
Kuwait	2,708	6,987	1
Holland	85,576	220,786	15
Saudi Arabia	103,266	266,426	16
Singapore	18,184	46,915	5
U.A.E.	86,003	221,888	113
United Kingdom	10,688	27,575	2
U.S.A.	1,273,326	3,285,181	210
	2,208,426	5,697,830	480
5. Fish - Lobster, Cooked			
Kuwait	380	980	1
U.A.E.	1,817	4,688	1
United Kingdom	48,999	125,901	8
U.S.A.	111,796	288,434	24
	162,792	420,003	34

PERSONS/FIRMS INTERVIEWED

Abdullah bin Ali Bakathir	Director General Fisheries Phone 696 258/696 369
Philip Roberts	General Manager Protein Products International Phone 701 864/703 684 795 512/27
Stephen Horwell	Manager - Projects OMINVEST Phone 707 772
Peter Fukes	Manager Oman Sea Farms Phone 707 772
Mohamed M. al-Alawi Jack Owens	Managers Oman National Fisheries Co. Phone 714 129/714 132
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BACKGROUND NOTES TO THE REPORT

The PEDS Project

This study was conducted under the Private Enterprise Development Support Project. The PEDS Project is a five year (FY88 - FY92) $20 million project managed by the Bureau for Private Enterprise. In the first year of the project alone, PRE provided technical assistance in response to nearly fifty different requests from Missions and Bureaus. The PEDS Project is designed to provide a wide range of expertise in private sector development. Areas of technical assistance include the following:

- Policy analysis related to private sector development
- Sector assessments and analyses
- USAID private sector strategy development
- Legal and regulatory analysis and reform
- Small-scale business development
- Trade promotion
- Investment promotion
- Free trade zone development
- Financial institutions and instruments
- Management and financial training
- The role of women in private enterprise
- Applications of MAPS: Manual for Action in the Private Sector

USAID Missions have the resources of twelve contractors available to them through the PEDS Project.

- Arthur Young (prime)
- SRI International
- Management Systems International
- The Services Group
- Trade and Development, Inc.
- Multinational Strategies
- Ferris & Company
- Metametrics
- Elliot Berg Associates
- Robert Carlson Ass.
- Ronco
- Dimpex Associates

The Consultancy

At the request of the Omani-American Joint Commission, PRE provided technical assistance to conduct an assessment of commercial fisheries in Oman. The consultant was requested to focus on the opportunities and constraints to private sector investment in Oman and to develop a series of recommendations to encourage increased private sector investment. The field work was conducted during a three week field trip in May 1988.

The Author

John A. Maynard, consultant to Arthur Young, has been associated with maritime and fishing industries since 1943. For the past fifteen years, Mr. Maynard has been based in the Philippines where he is actively involved in the tuna export industry. He has also undertaken a number of consulting assignments for private sector clients, as well as the Asian Development Bank, the United Nations FAO, UNIDO and IFAD. Some of Mr. Maynards consultancies include the following:

- Papua New Guinea Fishery Development Project (ADB)
- Philippine Fisheries Area Study (World Bank)
- Indonesia Fisheries Infrastructure Project (ADB)
- Western Samoa Fisheries Sector Study (ADB)
- Bangladesh Marine Fisheries Sector Study (ADB)
- Sri Lanka/Maldives Agricultural Sector Study (IFAD)
- Fisheries Credit III/Philippines (World Bank)