

A DISCUSSION OF THE POTENTIAL FOR EXPANDING INTO AN ALASKAN BOTTOMFISH INDUSTRY

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INTRODUCTION

The Fisheries Conservation and Management Act of 1976 has extended United States fishery jurisdiction to a fishery conservation zone of 200 nautical miles from Alaska's coast. In addition to this extended jurisdiction over fish, the U.S. has also assumed jurisdiction over the various organisms living beyond the 200 mile conservation zone. These include for example, coral, crabs, mullusks, and sponges.

A significant purpose of the Fisheries Conservation and Management Act is to encourage the development of fisheries which are currently underutilized or unutilized by United States fishermen, including bottomfish off Alaska. Previously there had been no management of bottomfish resources off Alaska's coast but the United States now has the right to management within the 200 mile conservation zone. Where foreign fishing has been the rule, domestic fishermen, if they enter this fishery, will have priority over foreign fishermen in the allocation of total allowable catch. This fact, coupled with the recent upward trend in wholesale prices of bottomfish products, has generated much speculation and interest as to the domestic harvesting and processing of bottomfish in Alaska.

Much of the state's role in the development of the bottomfish fishery in Alaska will be in the form of input to the United States government through the North Pacific Fisheries Management Council. This council was one of eight regional fishery management councils established by the Fisheries Conservation and Management Act of 1976. The council consists of 11 voting members (six of whom will always be Alaskan) who have management authority over the fishery conservation zone bordering Alaska.

AMERICAN UTILIZATION

The American public annually consumes more than 650 million pounds of frozen and fresh trawl fish

fillets and minced flesh. More than 90 percent of the supply of these products is imported.

The bottomfish resources of Alaska, if utilized by United States fishermen to the full extent allowed by current U.S. management plans, would produce annually about 1.3 billion pounds of fillets and minced fish muscle and about 207,000 short tons of fish meal and solubles or other dry weight of concentrated fish protein. Such production would make the United States a large net exporter of trawl fish products and, in all likelihood, would eliminate U.S. import of fish meal.

The degree of utilization of Alaska trawl fish resources by Americans is very low. Foreign fishing and processing has accounted for practically all production up to now. The total catch allowed under approved management plans for the Eastern Bering Sea and the Gulf of Alaska for 1978 is 321,000 metric tons. Of this total, only 14 percent is projected for possible catch by Americans. Plans for 1978 indicate that the vessels of other nations will catch at least 56 percent of the allowable catch of trawl fish in Alaskan waters.

CURRENT DEVELOPMENT ACTIVITIES IN ALASKA

At this time, nine companies have expressed enough interest in the bottomfish industry to at least initiate some small scale purchases of bottomfish species or begin their development planning stage. Seven of these companies are shore-based. Two involve floating processors of which one is a combined catcher/processor.

Four companies (three in Kodiak and one in Dutch Harbor) are now buying small quantities of bottomfish for experimental processing and marketing, including occasional purchases of pot caught cod species with deliveries made in live tanks. These companies are presently purchasing small quantities of unprocessed fish at prices which are

significantly above those that would be expected assuming a minimum level of operation profitability and current market prices. This reflects an effort by the processors to encourage some prospecting by interested fishing captains. For example, the Dutch Harbor operation has guaranteed a minimum income to fishermen who are willing to pot fish for cod and sablefish.

New England Fish Company (NEFCO) and Icicle Seafoods, Inc., in Petersburg have both signed contracts with the Alaska Department of Commerce and Economic Development for bottomfish processing activities. The contracts guarantee against loss for up to 3 cents per pound, with a \$145,000 ceiling on the total potential payment. In return, the companies are to supply the state with information generated by the pilot projects.

NEFCO has announced their intent to enter into bottomfish processing in a big way. Their development plans call for targeting on pollock, cod, and sole. They need three vessels, each committed to making 200,000 pound deliveries which would allow them to operate a minimum of 220 processing days per year. They have already invested \$580,000 in machinery, with total investment in their Kodiak operation expected to be about \$1 million. Pollock will be processed into 18.5 pound finished blocks. Cod is to be filleted, individually quick frozen, and marketed domestically. Minced flesh from both species would be reprocessed in Seattle into fish cake products. Flatfish would be bulk frozen and processed in Seattle.

Generally potential processors have revealed widely ranging intentions with respect to the degree of processing which will occur at Alaskan locations. Several of the firms are freezing either whole or gutted cod and sending the product to Seattle plants for further processing. Still others intend to do the bulk of processing in Alaska with by-product reprocessing, and breeding and battering operations to occur in Seattle. Still others are looking at international markets via the Anchorage International Airport. Flying Tiger Airlines, which presently flies fish from Alaska to the Orient during the summer months, has been actively investigating the potential marketing of bottomfish from Alaska to the Orient.

CONSIDERING THE UNCERTAINTIES FOR IMPLEMENTING A BOTTOMFISHERIES DEVELOPMENT PROGRAM

There are many variables of uncertainty which must be considered when implementing a bottomfisheries development plan. Some obvious considerations are: the resource itself, weather, harvesting capacities, and differences between the economic incentives of fisherman and processors. In more broad terms, the uncertainties facing the Alaskan bottomfisheries industry could be grouped into the categories of supply and market potential.

A. Bottomfish Supply

Although there appears to be a large quantity of bottomfish available in the Gulf of Alaska, taking the fish and getting them to the processing sector is a major bottleneck currently affecting the processing industry. This is a problem since the only vessels currently capable of trawling for bottomfish (in terms of size, horsepower, and seaworthiness) are crab, shrimp, and salmon vessels. Their opportunity costs of fishing for bottomfish rather than higher valued crab, salmon, and shrimp makes the venture undesirable. For illustration, the average boat in the Alaska shellfish fleet is realizing a very good return on investment. From 1970 to 1975, the amount of king crab harvested increased by 87 percent while the value for king crab increased 190 percent. During the same period, tanner crab catch increased 223 percent while the value of the catch increased by 400 percent. For shrimp, the harvest quantity increased by 33 percent while the value of catch increased by 162 percent. Even though these value increases haven't been discounted by inflation over the same period, they clearly do signify strong incentive for the Alaska shellfish fleet not to enter into a high risk, low return on investment industry, such as bottomfishing.

1. Vertical Integration

Seafood processors, recognizing the potential variability in the supply of bottomfish to their plants, may choose to adopt several strategies to help assure stable volumes. The traditional supply relationship consists of fisherman-owned vessels selling fish to the

processor with short-term price and quantity commitments. Because the processor has little control over the timing and quantities of fish delivered to the plant under this traditional arrangement, and because a bottomfish processing operation will have to operate year round to be profitable, processors may decide to vertically integrate the bottomfish industry. This simply means that processors will own the fishing fleets.

There are several advantages of vertical integration in the Alaskan bottomfish industry. The first is a protection against uncertainty. Vessel ownership by processors can assure the flow of raw product to the plant and keep operating costs at a minimum. Secondly, management can be improved through increased control over production. Finally, economies of scale can be realized through proper design of ship to processing plant so that the efficient operation level for one stage of activity can be matched with the most efficient level of operation for the subsequent stage of production. Although vertical integration would be an ideal management situation, current trends are not in this direction. As bottomfisheries expands in Alaska, new interests entering the industry may consider this organizational arrangement.

2. Guarantees to Fishermen

A second alternative which would help assure a constant supply to processors would be for processors to hire vessels and captains. The vessel, captain, and crew would be guaranteed a minimum salary based on their earning power in alternative fisheries. As an incentive, the processor could offer bonuses for supply in excess of the minimum supply agreement or favorable changes in the wholesale value of bottomfish. Some possible problems with this arrangement are that processors will not have complete management flexibility and control to assure efficient operations. Also, the salaries of captains and crew of ships large enough to trawl for bottomfish; which at this time are salmon, crab, and shrimp fleets, may be too high to warrant a profitable operation.

B. Market Potential

The markets for seafood products are a source of uncertainty for a bottomfish processing firm in Alaska. Currently U.S. and Canadian east coast operations support a large bottomfish industry, but produce almost exclusively for fresh fish markets. Since Alaskan products will typically be marketed in frozen packs, it is difficult to use the east coast experience to evaluate Alaskan product potential. What is known is that U.S. imports of frozen fish blocks in 1976 totaled 379 million pounds, and U.S. production of these products was approximately 2 million pounds. The average wholesale value of the U.S. production was 69.6 cents per pound. Of the major species available in Alaska for production, specifically cod and pollock, U.S. imports of these species in 1976 showed the value per pound ranging from 31 cents to 47 cents for pollock and 65 cents to 81 cents for cod. These values are considerably higher today.

One area which may have a substantial influence on domestic markets is foreign industry reaction to the 200 mile limit. Japan and Korea, the two countries which historically have controlled a good portion of international fish markets, may decide to block U.S. penetration into international markets by selling at less than cost for a period of time. On the other hand, some feel that those Asian countries which have historically fished off Alaska will be excellent markets for domestically produced products. Japan, for example, has not only lost some fishing rights off Alaska but also received a 62 percent reduction in their pollock quota off the Pacific Coast of the U.S.S.R.

Another variable which can affect the market potential for Alaskan bottomfish are other large suppliers; specifically Iceland, Norway, and Canada, who will all gain significant advantage from the expansion of their fishing zones. If their increased fishing jurisdictions result in larger catches, they may decide to dump the surplus on U.S. domestic markets. This would tend to flood the fish market and thus reduce prices considerably. Should this be a desirable tactic by North Atlantic fish exporting countries for gaining control of U.S. markets, Alaska's infant bottomfisheries industry could be severely hurt.

THE ROLE OF INSTITUTIONAL POLICIES

Policies initiated by the North Pacific Fisheries Management Council under the purview of the Secretary of Commerce, and the state of Alaska, will have significant roles in the course of developing Alaska's bottomfisheries. Three issues which are of current importance are: foreign-domestic joint venture arrangements, floating vs. shore-based processing, and the role of state government in providing incentives.

A. Foreign-Domestic Joint Venture

A joint venture arrangement in Alaska would essentially be U.S. fishermen supplying fish to a foreign processing ship three miles off the Alaskan coast. There are several benefits of such arrangements. Basically, these benefits are long-run commitments to provide Alaskan fishermen with access to the markets for a new resource, long-run commitments on the minimum price to fishermen including a bonus for maintaining patronage for a minimum period, higher incomes and income-tax revenues than would exist without the joint ventures, an opportunity to imitate fishing techniques of foreign rivals, and an opportunity to learn while having a guaranteed market.

The disadvantages, however, are much more controversial. If foreign processors did not participate in joint venture arrangements with American fishermen, then processing plants would have to be constructed in Alaska, or the fish would have to be shipped to processing plants in the Seattle area. This, of course, means more jobs and wages for Americans, and an increase and diversification of the Alaskan taxing structure.

B. Floating vs. Shore-based Processing

Floating versus shore-based processing plants in Alaska is an issue similar to foreign-domestic joint ventures in terms of the associated benefits of processing location. The state of Alaska will obviously want to pursue the side of shore-based processing simply because it will accrue many benefits to local communities such as job opportunity and increased income potential. Floating processors,

on the other hand, would most likely employ outside labor, both with respect to processing line crews and vessel crews. Since the processing vessels would be equipped and maintained in the Seattle area, the labor source drawn upon would also be from the Seattle area.

C. State Government Incentives

The final institutional policy mentioned here which can have an influence on fisheries development in Alaska is the extent of state involvement through incentive programs.

The state has already implemented a loss-guarantee program of which two processors have been guaranteed loss coverage up to \$145,000 each.

The possibility of further state action to stimulate bottomfish development will most likely come in the form of tax reduction and loan incentives. Loan incentives have a couple of advantages over tax incentives. First, they supply money at the front end of an operation, thus assisting cash flow considerations. Secondly, the state could gather more information about the structure of the industry and financial transactions when reviewing applicants.

Other possibilities for state involvement could be the financing of various demonstration - type projects. These may include the financing of trips abroad for Alaskan fishermen to view bottomfish operations in major world bottomfisheries, or financing to bring industrial expertise from other parts of the world to consult those interested in entering Alaska's bottomfisheries.

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