



Marketing Alternatives for Fishermen

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Marketing Alternatives for Fishermen

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Preface

This publication is intended for leaders at all levels of the seafood industry, marine advisory personnel and public policy-makers in related state and federal agencies. Its purpose is to foster discussion and development of a more informed view of the market problems facing fishermen and of the alternative approaches which may be available to them. It is hoped that this publication will encourage growth and change in the marketing system and its related institutions, and that the results will better reflect the interests of all participants.

The problems and alternatives identified reflect the authors' experiences in studying fisheries throughout the United States.

Similar recent work by economists for other food-producing sectors culminated in a series of leaflets, "Marketing Alternatives for Agriculture, Is There a Better Way?" Although the commercial fishing industry is based on a resource quite different from land-based agriculture, there are distinct similarities in its marketing system, marketing problems and viable alternatives. The similarities provide the general basis for the following discussion, but the uniquenesses of the seafood industry, particularly at the harvesting-first buyer level, required the development of this specific review.

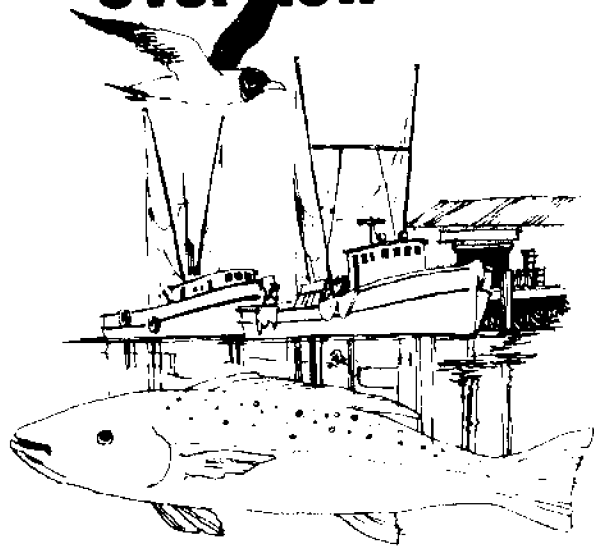
For a brief overview, attention is directed to the definition of marketing alternatives in the Introduction and to the final section of the publication, Marketing Alternatives in Perspective, which summarizes the marketing problems and alternatives and offers a perspective of the entire report. The other sections furnish more detailed discussions of specific individual marketing problems and each of the important alternatives.

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Industry Overview



Introduction

Markets and market channels for seafood landed by American fishermen are as varied and diverse as the products which flow through them. From small, one-boat operations to highly industrialized fleets, there is a wide range of conditions and problems. Traditionally, however, most fishermen know very little about what happens to the fish beyond the dockside or point of first sale.

Fishermen exist in a changing environment today. Recent legislative efforts, such as the Fisheries Management and Conservation Act of 1976, have greatly increased the output potential of the domestic fishing industry. Programs to enhance the development of entirely new fisheries are being widely discussed in industry and government circles. Institutional and organizational barriers in the marketing systems are among the most clearly identified impediments to this expansion and development. Some, such as the lack of shore-side handling facilities, are physical in nature, while other inherent characteristics are less tangible, such as the inadequate methods of reducing, shifting or spreading risk. How fishermen fare as the total fishing/seafood sector of the economy grows and expands is directly related to their involvement in the development and implementation of solutions designed to overcome these barriers.

How well fishermen fare also depends on the way they are organized to market their product. The dockside, or first buyer market, is traditionally the only link fishermen have with the rest of the seafood sector. How well this market operates, in terms of providing alternatives and an equitable price which reflects final consumer demand, is an important determinant of economic well being. Too often, however, fishermen accept whatever price is offered and fail to examine individual or collective alternatives which might be available to them.

Marketing Alternative Defined

A major objective of this publication is to identify and describe alternatives which fishermen may apply in attempting to solve their marketing or market-related problems. A marketing alternative is defined as a procedure, mechanism and/or system through which fishermen may sell, or influence the terms of sale of, their products. Marketing alternatives are not mutually exclusive and several may be used together at any one time to resolve market problems. Through his selection of alternatives the fisherman is striving to meet various objectives, including obtaining the highest long-term net returns possible from his production and marketing venture. Marketing alternatives may range from traditional dockside cash markets to sophisticated contracting arrangements or vertical integration. Varying levels

of initiative and government involvement are required.

Descriptions, requirements for success, examples of application and potential impacts on fishermen, marketing firms and consumers are included for selected alternatives. The intent is not to prescribe exact solutions, but rather to present general alternatives which appear promising, to stimulate discussion among industry leaders and to foster a more aggressive approach by fishermen toward solving their marketing problems. Particular alternatives are neither endorsed nor recommended. These decisions can only be made by fishermen themselves.

A brief overview of the fishing industry and seafood sector provides the basis for discussions of individual marketing alternatives. Following this are descriptions of the major marketing or market-related problems confronting fishermen. The potential applicability of the marketing alternatives are assessed against this background.

Seven marketing alternatives are included:

1. Organized exchanges
2. Forward contracting
3. Vertical integration and joint ventures
4. Bargaining associations
5. Marketing orders
6. Marketing boards
7. Extra-market activities

The final section contains an overview of the alternatives and the marketing problems they are designed to address. The applicability of each alternative to the set of marketing problems as well as the degree of fisherman and government involvement required to implement each is assessed. While the primary focus of this publication is on marketing problems and alternatives for fishermen, a broad question of market control is implied throughout. That question is, **Who will market your seafood?** Fishermen must recognize that choices are being made and the existence of viable alternative marketing methods may depend on their initiative.

Overview of Seafood Industry

Landings and Consumption

The U. S. seafood harvesting industry consists of many relatively small firms, most of which operate only a single vessel. A great deal of diversity exists among the separate fisheries with respect to harvesting methods, vessel sizes, relative value of catch and related economic characteristics. In 1975 over 100,000 commercial fishing craft were registered but only approximately 16,000 were larger than 5 net tons. Of about 168,000 total fishermen, approximately 48,000 were employed on vessels of 5 net tons or larger.

While landings have increased 35 to 40 percent

Table 1. Landings and Value of Major Fish and Shellfish Species in the United States, 1978

Species Group	Value		Pounds	
	Thousand Dollars	Percent of Total	Thousand Pounds	Percent of Total
	(000)	Percent	(000)	Percent
Shrimp	385,507	20.8	422,881	7.0
Crabs	285,032	15.4	449,142	7.5
Salmon	254,537	13.7	404,489	6.7
Tuna	176,949	9.5	408,878	6.8
Subtotal	1,102,025	59.4	1,685,390	28.0
Menhaden	98,272	5.3	2,595,013	43.1
Scallops	81,813	4.4	33,295	.6
Lobsters	74,354	4.0	39,048	.6
Clams	74,131	4.0	87,711	1.5
Flounder	72,762	3.9	180,720	3.0
Subtotal	401,332	21.6	2,935,787	48.8
All Others	351,143	18.9	1,406,523	23.3
TOTAL*	1,854,500	100.0	6,027,700	100.0

*Percentages may not add to 100 due to rounding.

Source: Fisheries of the U.S., 1978; National Marine Fisheries Service, NOAA: U.S. Department of Commerce, April 1979.

over the past decade (1969-1978), value of catch has increased nearly four-fold. Effort by U. S. fishermen tends to be concentrated on a relatively few high valued species, although commercial quantities of a great variety of different species are landed seasonally in various coastal areas. In 1978 nine species or species groups accounted for over 80 percent of the value of fish landed and about three-fourths of the quantity (Table 1). Four accounted for 60 percent of the value. The largest volume fishery, menhaden, accounted for 43 percent of total landings but represented only 5.3 percent of value.

Regionally the Pacific and Gulf of Mexico account for the greatest share of landings (Table 2). In 1978 West Coast fisheries comprised over 40 percent of the value of landings and about 30 percent of the volume. Gulf fisheries accounted for about a quarter of value and 38 percent of the quantity.

Imports are also a very important seafood supply source in the United States. In 1978 about 61 percent of the U.S. supply of edible commercial fishery products was imported. From 1955 through 1973, domestic landings decreased significantly as a share of total edible supplies. In recent years the domestic share has stabilized and even shown some increase (Table 3).

On a per capita basis, U.S. seafood consumption is relatively low when compared with meat and poultry. In 1978 it is estimated that per capita

Table 2. Commercial Landings of Fish and Shellfish by Regions, United States, 1978¹

Region	Pounds		Value	
	Thousand Pounds	Percent	Thousand Dollars	Percent
New England	660,717	11.0	\$ 256,510	13.8
Middle Atlantic	200,603	3.0	78,591	4.2
Chesapeake	598,618	9.9	94,179	5.1
South Atlantic	398,940	6.6	96,276	5.2
Gulf	2,286,998	37.9	473,227	25.5
Pacific Coast	1,740,855	28.9	820,632	44.3
Great Lakes and other inland waters	126,394	2.1	23,465	1.3
Hawaii	14,575	.2	11,620	.6
Total*	6,027,700	100.0	\$1,854,500	100.0

*Percentages may not add to 100 percent due to rounding.

¹Statistics on landings are shown in round weight for all items except univalve and bivalve mollusks, such as clams, oysters, and scallops, which are shown in weight of meats excluding the shell.

Note: Data are preliminary; landings by U.S.-flag vessels at Puerto Rico or other ports outside the 50 states not included. Data do not include production of artificially cultivated fish and shellfish.

Table 3. U.S. Supply of Edible Commercial Fishery Products, 1955, 1960, 1965 and 1970-1978; Round Weight Basis.

Year	Domestic Commercial Landings		Total Available Supply	Domestic Landings Share of Total
	-----million pounds-----			
1955	2579	1323	3902	66.1
1960	2498	1766	4264	58.6
1965	2587	2576	5163	50.1
1970	2537	3676	6213	40.8
1971	2441	3582	6023	40.5
1972	2435	4454	6889	35.3
1973	2398	4709	7107	33.7
1974	2496	4142	6638	37.6
1975	2465	3929	6394	38.6
1976 ²	2760	4629	7389	37.4
1977 ²	2900	4514	7414	39.1
1978 ²	3177	4958	8135	39.1

¹Excludes imports of edible fishery products consumed in Puerto Rico, but includes landings of foreign caught tuna in American Samoa.

²Preliminary.

Source: Fisheries of the United States, 1978, National Marine Fisheries Service, NOAA; U.S. Department of Commerce.

consumption of seafood was 13.4 pounds compared with 149 pounds for red meat and 57 pounds for poultry meat. About two-thirds of the seafood is consumed through restaurants and institutional feeding. Shrimp and tuna account for more than one-third of edible consumption. Seafood prices have risen rapidly in the past decade as demand has increased and supplies have remained relatively static. Retail fish prices in 1978 increased an average of 175 percent over 1967. During the same period prices for all food products increased 111 percent, red meat 106 percent and poultry 73 percent.

Marketing Channels

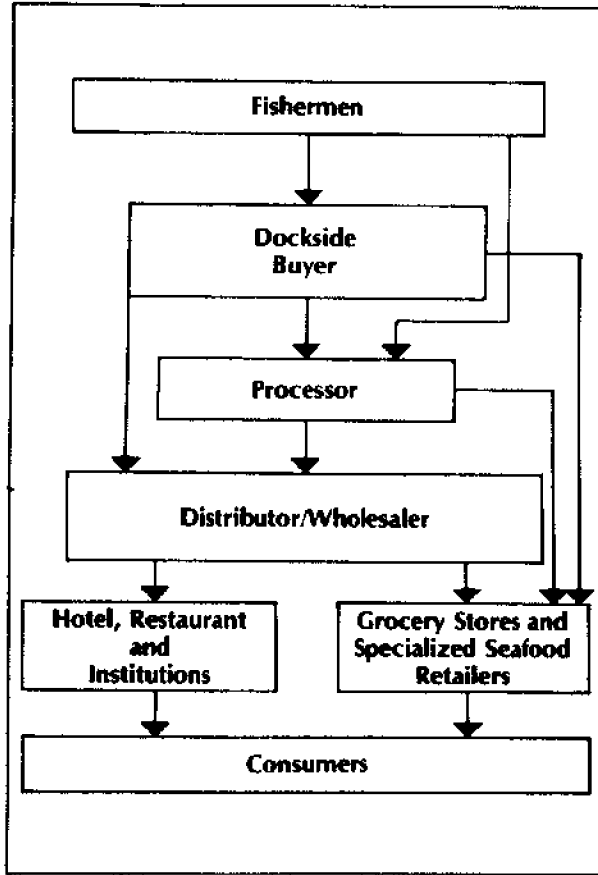
The channels through which fish and shellfish reach the ultimate consumer vary greatly among fisheries. Market channels refer to the path the product takes as it moves from the harvesting level through processing, distribution and retailing. Figure 1 is a generalized diagram of these marketing channels. There are variations, depending on product differences and traditional trading patterns which have developed in specific fisheries. The nature of the marketing channel and the types of firms which operate at various levels are important to a discussion of marketing alternatives for fishermen. The major levels are harvesting, dockside buyer, processing, wholesaling and retailing. As with most food industries the channel is hour-glass shaped. Many fishermen sell to significantly fewer handlers and/or processors; they, in turn, sell to wholesalers who supply a much larger number of retailers.

Ownership of the fish or seafood product changes hands at several points in this system. These are referred to as pricing points to indicate that a price is established wherever ownership changes. Generally a pricing point is associated with the existence of some type of market which sets a price. These may be wholesale markets, active auctions or, perhaps, a local dockside market with only one or two buyers. These are discussed later in more detail.

The fisherman is most interested in the first pricing point — when he sells his product. How well this market reflects the true market value of his product is the primary determinant of his economic well being. It is true, however, that markets throughout the channel affect the dockside or "first buyer" price.

For the most part fishing vessels are not tied to processing or other levels of the marketing channels. A notable exception is the industrial fisheries of the Gulf of Mexico where firms are fully integrated from harvesting through marketing of their products. In edible fisheries, examples of integration across this first pricing point may be found in both the tuna and shrimp industries. In other instances fishermen

Figure 1. Generalized Diagram of Major Marketing Channels for Domestic Seafood Products.



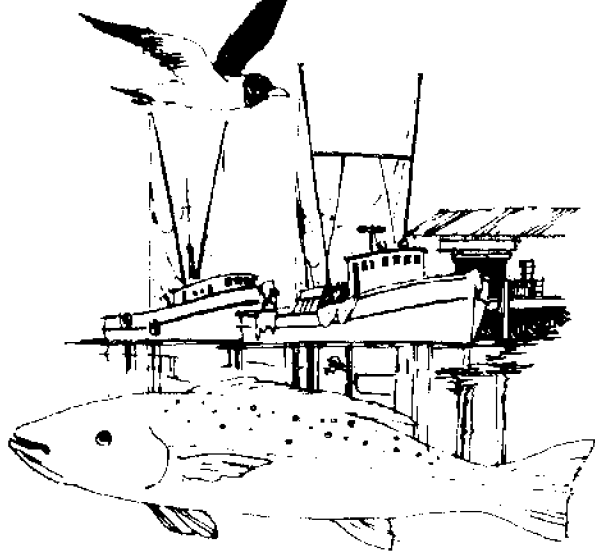
have integrated forward to the extent of owning dockside facilities but they still sell to processors or wholesalers in an open market.

Traditional Dockside Markets

Dockside markets may differ greatly in competitiveness and in the way prices are determined for an individual lot of fish. Perhaps the most prevalent form of market in the fishing industry is the traditional independent trading arrangement or private sale. Each fisherman negotiates independently with available buyers in a market that is usually limited to a defined port area. The collective activity of this independent trading creates a spot, or cash, market for the fish in that port or area. Under ideal competitive conditions the basic economic forces of supply and demand determine a price for fish of a given quality at that time. Where this process meets the needs and expectations of both buyers and sellers, this is fine; the competitive independent trading spot market represents one marketing alternative. When needs or expectations are not met by such a market, however, other alternatives should be explored.

Various types of auctions or organized exchanges have been developed both in the fishing industry and in other commodity marketing systems. These alternatives and others are detailed elsewhere in this publication. One major point is the exact role a fisherman plays in determining which alternatives can help him sell his fish. Before examining specific marketing alternatives, however, it is appropriate to look at the overall problems which exist in the U.S. marketing system for fish and shellfish. Once these problems are clearly identified, it will be easier to assess the value of the marketing alternatives more directly.

Seafood Marketing Problems



There has been little research devoted to specifically identifying the numerous seafood marketing problems. Consequently, this discussion should not be interpreted as totally complete. Much of previous discussions of problems and attempts at resolution have been directed to symptoms rather than basic causes. An attempt is made here to distinguish between symptoms and problems and to outline general categories of problems which produce the symptoms. Problems are classified into three broad groups: (1) demand, (2) market structure and coordination, and (3) supply-related problems. Major attention is given to problems at the first market level which is referred to as the seafood buyer or seafood dealer market level.

Symptom or Problem

Symptoms reflect the felt needs of industry members and/or consumers for solutions to basic problems. Problems cause the symptoms. Symptoms commonly noted by members of the seafood industry are (1) low prices and/or wide seasonal price variations, (2) low or unstable produce incomes, (3) poor quality seafood products which often are not supplied in the proper product type or market location, and (4) concern that not enough of the consumers' dollar is being returned to fishermen. Attempts to alter these symptoms directly rather than attacking the basic causes lead, at best, to short-run solutions.

Demand Problems

There are two types of demand-related problems: (1) price responsiveness and (2) level of demand. Price responsiveness is concerned with demand elasticity, which is a measure of relatively how much more (less) will be purchased as price declines (increases). Fishermen's prices are highly responsive to small changes in production. This is important for two reasons. First, prices vary widely from month to month as seasonality affects production. This results in unstable incomes for fishermen. Second, gross incomes decline as production increases when the price is highly responsive to quantity changes. In this situation prices decline more than production increases.

Level of demand dictates the prices fishermen will receive for different quantities landed. Increased demand means fishermen will receive higher prices and high levels of gross income for given levels of production. Consequently, fishermen and other members of the seafood industry generally want to expand the demand for seafood products.

These demand problems result from three underlying factors: (1) perishability and limited market

access, (2) low level of domestic demand, and (3) limited export demand.

Perishability and Limited Market Access

Fresh seafood products are highly perishable. Since most individual fishermen cannot process and/or store their products, they must sell their catch at the dock as soon as it is landed regardless of the current market price. Prices will be driven to low levels during peak seasonal production periods, and, in some cases, gross revenues will decrease while production is at a peak. Development of processing and storage activities and facilities increases the number of market outlets, gives fishermen access to a greater variety of markets and reduces the perishability problem since the catch can be held until prices improve. Dockside prices will be less sensitive to production variations. Supplies placed in the market system also will be evened out, thus reducing price and income variations. Fishermen, however, may not receive the full benefits if they are not integrated into the marketing and processing sector.

Low Level of Domestic Demand

Domestic seafood demand at the consumer level is generally categorized as insensitive to price changes and low when compared with the demand for other meat products and with seafood demand in other countries. Several characteristics of the U. S. market and consumers are responsible for this situation.

Lack of knowledge. It is generally accepted that domestic demand depends on the level of consumer seafood education. Homemakers, in particular, need to know more about (1) alternative preparations or uses of seafood products, (2) nutritional attributes, (3) quality characteristics, and (4) preservation and safety factors. This lack of knowledge is a major cause of the relatively low seafood demand in the United States. Promotional consumer education activities generally are suggested as solutions.

Tastes, preferences and substitutes. The apparent lack of taste and preferences for seafood by U.S. consumers also is cited as a reason for the relatively low seafood demand. U.S. per capita consumption is only about one-fourth that of many foreign countries. This, however, may be more closely related to the number of available substitutes. Relatively high per capita consumption in foreign countries may be due as much to a lack of other meat substitutes as it is due to a real preference for seafood.

Consumer incomes. Consumer income is a third factor directly affecting the level of demand. Higher incomes tend to focus consumption on high valued products, such as shellfish, and decrease the de-

mand for lower valued seafood products. Further expansion of these markets for high valued species results in seafood supplied at prices considerably above those of competitive products. Promotional and educational activities are needed to expand seafood markets successfully, particularly for the lower-valued, underutilized and non-traditional species.

Seafood as a percentage of expenditures. Seafood consumed at home is only a small part of the U.S. consumer's food budget. Most seafood is eaten in restaurants where the actual cost of the seafood is only a small part of the total price of the dinner. Because of this, there is little variance in the quantity consumed as the price of the seafood component changes.

Price of imports. The relatively low price of substitute imported seafood products also contributes to the low demand for domestic products. A more detailed discussion of imports is included under supply-related problems.

Possible solutions to inelastic and low-level demand problems often involve activities which are beyond the scope of individual producers or fish dealers. Marketing associations or other groups must provide these activities, and any successful development activity will require coordination of the supply sector with marketing activities throughout the system.

Limited Export Demand

Export demand increases the total demand for U.S. seafood products. Overall, the export of U.S. seafood products is relatively low. Both domestic supply and demand problems affect the expansion of foreign markets. Impediments include (1) political barriers, such as import duties and trade restrictions, (2) lack of concentrated volumes of sufficient size to meet foreign orders and to effect economies of scale in shipping, and (3) foreign tastes and preferences which differ from those in the United States. The latter is a problem because current U.S. product characteristics and handling methods differ from those desired by foreign consumers. Group and/or government action is necessary to remove or reduce politically related barriers to foreign market expansion, while adjustments in market structure and the supply system are necessary to overcome problems of volume and meeting foreign customer needs.

Market Structure and Coordination

Many marketing problems evolve from the way the industry is organized and the way sales and sales information are handled. These are formally referred to as market structure and coordination problems.

Coordinating Activities

A successful seafood industry requires coordination between fishermen and the ultimate consumers. It is the function of the marketing system to coordinate the production decisions of producers with the purchase decisions of consumers. Generally, this is handled by middlemen, the seafood dealers and processors, since only a small part of the total production is sold directly to consumers by fishermen. This coordination requires (1) price and quantity information and (2) uniform product standards and descriptions. These two items, often lacking in the seafood industry, are a source of many coordination problems.

Lack of price and quantity information. Prices reflect supply and demand at the final market level. These prices must be passed down through the market system in order for fishermen to know what products to supply in what quantities. Certain desirable attributes of price information are often lacking in the present seafood marketing system. Current price information is often described as inadequate, inaccurate and untimely. The basic problems are the lack of a formal price reporting system at the retail level and only a limited reporting system at the wholesale level. Limited price information is published for selected terminal markets but these are often one or more levels removed from the fishermen. This often leads to incorrect information in terms of the size of marketing margins and expected dockside prices. In some dockside sales, fishermen must wait until the truck returns from market to learn what price was received. This may occur a week or more after production and, thus, does not allow efficient production planning.

Lack of uniform product standards and descriptions. In addition to price information, effective communication of demand and supply conditions throughout the market system requires precise language. In marketing terms this language refers to grades and standards, nomenclature, "correct" labeling and related information with respect to product type and attributes. Grades and standards are not widely standardized in the seafood industry as they are for other food commodities. At best, nomenclature is consistent only in local geographical areas. These deficiencies lead to intentional as well as unintentional product mislabeling. Promotional efforts to build an image are defeated when other lesser valued products are merchandised under the same name. It is difficult to stimulate seafood production of the type and quality demanded by the ultimate consumer without proper grades, standards and nomenclature.

Structural Characteristics

Limited competition. An industry's structural

characteristics generally refer to the number and relative size of firms at different market levels as well as the vertical integration between market levels. These structural characteristics may actually cause marketing problems related to competition and efficient size of operation. A small number of firms compared to the number of fishermen or a few large dominant firms may lead to a lack of competition. With a noncompetitive structure, fishermen receive lower prices, and this, in turn, causes fishermen to produce less than they would if prices were higher. "Company" store practices create similar situations. Fishermen who are obligated to sell to certain buyers do not have the alternative of seeking out the best price.

At the other extreme, too many fish buyers may cause the industry to suffer from excessive competition. A large number of buyers may bid prices up to levels where they are unable to resell in the wholesale or retail markets for an adequate profit. Competition for fishermen also often causes buyers to absorb losses when prices are low. In this case buyers are willing to absorb losses to insure a supply when prices increase. Obviously this type of situation will not persist for a long period of time. Without a total understanding of seasonal price variations, fishermen often are unhappy with increased margins during these more favorable markets for fish buyers.

Small scale of first buyer operation. The small scale of many fish buyers may have detrimental effects on the system. The marketing firms may be financially unstable or have limited dockage and storage capacity. Financial instability may cause firms to enter and leave the industry frequently which prevents development of consistent marketing channels. Inadequate capital also leads to technical inefficiencies and limits storage and processing facilities. These problems limit the market access of individual fishermen which, in turn, causes them to receive widely fluctuating prices.

Larger marketing firms also may have problems related to limited unloading, storage and processing facilities because demand for shoreside space in some areas for nonfisheries use has bid the price beyond its value for use as a commercial fishing facility. Seasonal and annual variations in landings also affect the financial stability of large firms.

Supply-Related Problems

Many of the marketing problems discussed are magnified by supply-related problems. Supply characteristics which can affect fishermen are (1) variations in supply, (2) harvesting characteristics, and (3) volume of imports.



... and the boatmen, rather than fishermen, often determine day-to-day supply.

Variations in Supply

Catch variability and associated highly sensitive dockside demand causes wide price variations within and between production seasons. This, in turn, produces similar variations in fishermen's gross incomes. Landing variations essentially result from (1) biological and environmental variables and (2) regulatory programs. Fishermen have little or no direct control over the first variables. How much control can be exercised over regulations depends on the political climate and the extent of industry representation in formulating management programs.

Price and income problems caused by catch variations are often intensified by a lack of adequate storage facilities to even out the supply between production seasons. Inadequate unloading and handling facilities also adds to the problem.

Structure of Harvesting Industry

Producers' harvesting practices, assembly procedures and on-board handling also cause supply-related problems. In many fisheries there are numerous small producers located over wide geographical areas. Each produces relatively small volumes of many species which results in a high-cost assembly system. This problem is further aggravated because on-board handling is not consistent between producers. These factors make it difficult and costly to provide a stable uniform flow of seafood for the market.

Volume of Imports

The final supply-related problem is due to the large volume of seafood moving into the United States. The volume of imports of all species causes the level of prices throughout the market system to decline. In some cases imports have been mislabeled, causing a price decline for relatively high

valued U.S. landed products and, possibly, deterioration of product image. Domestic prices are susceptible to market conditions and policies of exporting countries. Until domestic production increases substantially the U.S. market will be dependent on imports to insure a continuing supply. Efforts to control imports need to be closely coordinated with fishery expansion to insure balance is maintained between production and consumer needs. Domestic supply control efforts will be ineffective, however, without import regulation.

Summary of Marketing Problems

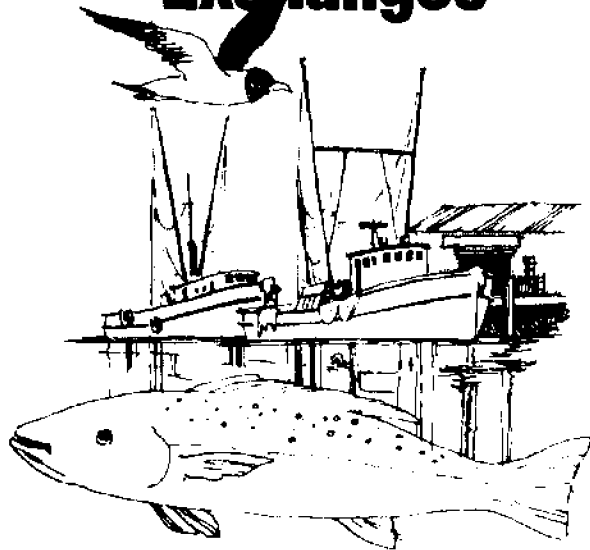
Three basic demand-related problems may be identified: (1) perishability of fresh seafood; (2) limited market access; and (3) low level of demand, both domestic and export.

Market structure and coordination problems relate to market information, degree of competition and nature of support facilities. Specifically, these are (1) an inaccurate, inadequate and untimely price reporting system, (2) an absence of acceptable nomenclature, grades and standards, (3) limited competition in some areas, and (4) small scale fishing and fish buyer operations.

Supply-related problems are wide seasonal and annual variations in supplies often being delivered in small, inconsistent units at the producer level. Total supply of a given quantity and quality on an annual and seasonal basis is difficult to control because of (1) biological, environmental and regulatory variability, (2) many small, widely dispersed fishermen, and (3) a large volume of imports.

Marketing problems must be thoroughly understood before alternative arrangements can be assessed. In the following sections various approaches will be discussed which can aid fishermen as they strive to meet the challenges presented by a dynamic food production and marketing system.

Organized Exchanges



In the evolution of commodity marketing systems trading among individuals gradually becomes organized and often is physically centralized to aid communications, product examination and price negotiation. Auction markets are a form of organized exchanges which have been used for fish marketing in many parts of the world. Two forms are described, "hands-on" auctions and electronic or "hands-off" auctions which use modern communication systems and computers and eliminate the need to assemble the product at a specific location.

Another form of organized exchange which has been employed in commodity marketing is the futures market. While this has not been used successfully in fish marketing, some aspects potentially could resolve some problems facing fishermen and seafood product handlers.

Fish Auctions

Auctions are a common way of selling fish in Europe and Japan but are rarely used in North America. These foreign auctions appear to work best when there is a strong demand for high quality, diverse fisheries' products. It is unclear whether these auctions are a response to consumer demand or, in fact, are themselves responsible for the presence of the strong demand. Whatever the case, these auctions appear to be a model of a well functioning market; they provide generally high prices to fishermen and a high quality product to consumers. As such, they are worthy of consideration by U.S. fisheries.

An auction brings a large number of buyers and sellers together to give both groups maximum access to the market. From the fisherman's point of view this means he can obtain bids from a large number of buyers. The processor, in turn, has the option of buying from as many or as few fishermen as he needs to meet his production schedule. Auctions come in many forms and are operated under many different conditions. Geography, product type and form and the distribution system influence what type of auction, if any, is suitable for a given fishery. The forms auctions may take, factors influencing their success, means of implementation and impacts are discussed in this section.

Types of Auctions

Generally, the different forms of auctions are distinguished by the location of the product when it is sold and the method of price bidding for the product. Location is important if buyers need to see the product on which they are bidding. In most instances, fishery product standards are not well-defined or accepted and potential buyers consider it

necessary to visually inspect the product. Traditional auctions of this type, the "hands-on" auction, are the most commonly found. Where product standards are well established, "hands-off" auctions can be conducted using telephones, teletypes or similar electronic means. Product standards must be defined well enough, however, that a third party can successfully arbitrate a dispute between buyer and seller.

Price bidding is typically conducted in one of two basic ways. The English, or progressive, system of bidding is the most well-known. The auctioneer starts with a low price and works his way up until the bidding stops. In the Dutch system the auctioneer starts with a high price and works his way down until some buyer indicates that he will pay the price.

A relatively new auction method is a system in which all lots of the commodity offered for sale are entered into a computer information storage and retrieval system so that descriptions of each lot are available to potential buyers. The buyer then bids on those lots in which he is interested. This system is used for cotton and some livestock in the United States and Canada.

Auction variations are made possible by differences in location and method of bidding. This makes the auction approach to marketing fisheries' products relatively flexible and acceptable to many market situations. This same flexibility, however, means that the right kind of auction arrangement, if any, must be carefully considered for each possible fishery application. Auctions do not come in ready-to-use packages.

Factors Influencing the Nature and Success of Auctions

Any market is a fairly complex adaptation to the kind of product involved, processing methods, the nature of consumer demand, seasonality and other variations in supply, wholesale and retail distribution systems, geography, vested interests and government regulations. Consequently, the feasibility and appropriateness of any new auction system will depend on how well it meets the market requirements and satisfies the buyers' and sellers' interests. Needless to say, the possibilities for the successful introduction of an auction are considerably improved if all, or nearly all, current participants in the market stand to benefit. This may be difficult to accomplish if the current marketing system is reasonably efficient. Many fisheries' markets, especially the fresh markets, are not typically very efficient, however, because of the market information, access and pricing problems. In these cases fishermen and buyers will find auctions can be mutually beneficial. The most important factors which should be considered with regard to

the feasibility and choice of auction type are discussed below.

Product standards. The form of the fishery product when sold by the fisherman has a major influence on the feasible methods of sale and alternative auction forms. In fisheries where the product is uniform in quality or easy to describe fully by one or two means (alive or dead, different size groupings), little information must be conveyed with each sale and it usually is easily understood. For example, both buyer and seller understand exactly what is meant by "300 pounds of live, one-pound lobsters." In this situation, there are minimal problems of trustworthiness between buyer and seller. These types of product markets are especially well suited for a "hands-off" auction where the product need not be present at the time of the sale. The telephone bidding system used for shrimp in Brownsville, TX, and the California pre-trip tuna auctions are examples of this type of product market.

Most fisheries' markets, however, are not characterized so simply. The New England ground-fish market typifies the most complex market in which many species of highly variable quality are involved in each sale. In these cases the nature of the product requires that each sale be accompanied by information regarding quantity and distribution of sizes by species as well as about the distribution of quality within each size category. The problem is compounded by the lack of generally accepted verbal descriptions of subtle qualitative attributes. If the fish are available at the time of sale, the buyer need only to examine the product. Should this transaction be conducted by telephone or other electronic means, the possibilities of conveying precise, accurate information about the product's characteristics are greatly reduced. When trading in this highly diverse type of product does occur by telephone most buyers and sellers limit their transactions to a small circle of individuals they have learned are trustworthy. Even then, most transactions are conducted on the assumption of some minimum standard of quality (rather than a maximum or gradations in between) to reduce the possibility of later disputes between the parties.

A "hands-off" auction attempting to deal in this kind of product would find the information requirements and the problems of enforcing the accuracy of statements about product condition to be nearly insurmountable. A "hands-on" auction is probably the only kind of feasible auction for a multispecies, variable quality product market at this time. It is possible, however, that a "hands-on" auction could evolve into an electronic auction as traders develop consistent and enforceable product standards. The history of livestock auctions clearly indicates that such a potential exists.



Fish auctions are an important marketing option in many countries.

Distribution and processing requirements. A processor often will be willing to pay more for a product if it is supplied in a way which is harmonious with his production requirements. A processor often establishes informal trading arrangements with a number of fishermen to be able to get any product at all in unorganized fisheries' markets. Generally he agrees to take an entire catch at a price set according to some formula (e.g., based on government price reports or some other standard). He often has to buy more fish than he can process or buy fish that are unsuited for his operation. One of two things usually occurs in these situations. The processor refuses to buy more fish which lays up men and boats or he places fishermen on strict catch quotas (e.g., the Pacific coast ground fishery). As an alternative, he continues to buy and attempts to broker the product to other buyers, frequently at a loss, which he tends to cover through lower prices to fishermen. At other times he may find that his "contract" fishermen cannot land enough fish to keep his processing lines busy and his workers fully utilized. These overhead costs are absorbed, in part, through lower prices to fishermen over the course of the year. In any event, the inability of unorganized markets to match supply and processing capacity easily results in lower incomes for fishermen than they might otherwise receive.

A major advantage of an auction market is that it minimizes the effects of temporary, localized shortages or oversupplies of fish and/or processing capacity. This is because variations in supply or processing capacity are likely to be much less for a large number of fishermen and processors than they would be if the same people were dealing on an independent basis. A fisherman always has the option of selling to the highest bidder in an auction market; he is not dependent on the capacity of a single buyer. Processors and dealers have direct access to the supply of all fish being sold and do not have to depend on the regularity of a small number of usual suppliers or contract boats.

In addition, fish need not be sold and transported several times before reaching the initial processors and distributors since the latter need not trade among themselves to balance their supplies and processing capacity. Processors can plan their operations on the basis of a more predictable and less variable supply. The costs of hiring temporary, untrained labor and the equipment necessary to handle localized supply gluts can be reduced significantly. Processing workers enjoy steadier employment and have more reason to upgrade their skills. On the distribution side the processor can fulfill more exacting and valuable supply contracts because he can assure his clients of a continuous supply and a higher, or at least more reliable, level of product quality.

The processor will realize these benefits only if he is willing to bid the top price in the auction. If not, he will not obtain a steady supply of the right quality product and will lose most of the benefits he might otherwise gain. In effect, the processor is forced to shift some of the gain to fishermen to realize the most benefits from an auction market.

Product quality. An active auction market enhances competition among buyers. Premiums and discounts are established in the competitive bidding process in relation to recognized quality attributes of the product. Buyers reflect consumer demand by bidding higher for products of a higher quality.

From the individual fisherman's point of view these quality premiums are important because they reward the man who invests in the equipment and time necessary to deliver a first class product. Quality premiums also benefit the industry as a whole because they create a tendency for overall higher-quality products. One of the major problems in many fisheries is that high quality is not rewarded consistently; this tends to reduce the average quality level to just above that necessary for acceptance.

As an auction becomes established and the pattern of premiums and discounts emerge, the product qualities on which these are based will become better recognized. This may lead to improved product descriptions and, ultimately, to the establishment of broader, more accessible markets, perhaps through electronic assistance.

Market information and power. One advantage of an auction for the fisherman is that it minimizes the cost of required market information and it does so without imposing a penalty. There is some advantage in unorganized markets in knowing who is buying how much of what kind of product. Unorganized markets also give individuals the leverage of threatening to withhold future supplies or purchases. Large suppliers and buyers can use the promise of future deliveries or purchases to effect a better current market price for themselves.

Information advantages, market power and large size are frequently highly correlated. Market information is costly and also frequently has the attributes of a fixed cost. Large firms can spread the cost of market information across a larger volume of sales to lower their unit costs, improve their competitive position and lay the groundwork for further growth.

By bringing many buyers and sellers together in a central exchange, an auction reduces the amount and cost of information for everyone and creates a much more balanced competitive situation. The relative advantage of spreading information costs over large volumes which larger firms enjoy in an unorganized market disappears in an auction system because of the low cost to everyone. Threats to withhold future sales or purchases have no impact in an auction market since all transactions are

impersonal and everyone is free to turn to anyone else to buy or sell. Consequently, price differentials are not caused by market power, but rather result from actual differences in the product being sold.

Large buying firms also benefit from an auction because absolute costs are reduced. Because of their access to all supplies, buyers may find that an auction provides a more reliable supply at less expense and trouble than they encounter in running their own integrated fleet. The buyers' incentive to integrate into fish harvesting may be reduced significantly in an organized market.

Geography. Ideally, a "hands-on" auction should be located in a transportation center between a major harvesting area and a major consumption area. This would minimize the pre-auction transportation and handling costs since most products would be moving through the center anyway. If geography or normal shipping practices do not create a transportation center, the extra shipping costs required for a "hands-on" auction can reduce the potential gains.

There is more incentive to have a "hands-off" auction under these circumstances since it is not necessary to transport the product. Buyers and fishermen, or their agents, can participate effectively from a distance and can conclude the sale with shipment of the product to any point designated by the buyer.

Number of buyers and sellers/volume of product. Both hands-off and hands-on auctions require that sufficient buyers and sellers be involved to prevent collusion and that buyers be representative of the variety present in the final demand for the product. Many of the benefits of an auction are forfeited if there is any collusion and/or only part of the final demand is represented. These problems are overcome by making the auction as accessible as possible. One of the most significant advantages of a hands-off auction is that it enables more buyers and sellers to participate since they do not have to be physically located together.

Collusion can be prevented by allowing fishermen to set minimum prices for their fish, providing fishermen with cold or frozen storage so products can be held off the market, and allowing fishermen to remove their fish from the auction. Handling methods at the auction also can affect the number of real buyers accessible to fishermen. Large lot sizes, for example, may exclude many small, specialized buyers. If fish are auctioned before off-loading on an "as if first quality" basis, as in Boston, renegotiation to establish actual quality and price after the auction closes deprives fishermen of access to many buyers. The magnitude of quality associated premiums and discounts then are not subject to the impersonal competitive forces of the auction.

Implementing an Auction

Auctions do not occur spontaneously but rather result from cooperative efforts of sellers, buyers and, usually, some public agency such as a city, county or state. Cooperative action is essential because the benefits of an auction depend on a critical minimum number of buyers and sellers participating. An auction cannot start with one or two people. There must be an initial agreement among a number of buyers and sellers to conduct their transactions through an auction. This agreement often is the major problem in establishing an auction.

The first step is to determine if an auction is needed. This study should assess the potential volume, species involved, numbers of buyers and sellers, required facilities and associated investments, operating costs and planned operating procedures and rules. After determining the needs and potential benefits, support among buyers and sellers can be generalized through an educational program. Each possible participant will have to make his own personal assessment based on his own situation. No one can be expected to make a major decision based on a vague notion that an auction would be a good thing.

Efficiency and impartiality are the main requirements for operating an auction. Generally, this is achieved best by establishing an independent corporation governed by representatives of the various user groups. Once operational, everything possible must be done to assure both the actuality and the appearance of impartiality. This does not mean that the initial development and promotion of the auction concept cannot be undertaken by a fishermen's cooperative, buyers' association or a combination of both.

A further discussion on initiating and setting up marketing organizations is given in the final section of this report. Written descriptions of fish auctions are not readily available, but several references on related auctions are listed as well as suggestions on ways to contact people with experience in organizing and operating similar businesses.

Futures Markets

Another form of organized exchange which often is used in conjunction with food commodity marketing is a market for futures contracts. A futures contract is a commitment to deliver a specified quantity of a commodity at a stated future time which meets a narrowly defined set of specifications. Such contracts exist and are widely traded, not only for food-related commodities such as wheat, corn, live cattle and frozen eggs but also for many metals, industrial materials and other non-food commodities.

How Do They Work?

An organized futures market permits risk to be shifted among all participants. By selling a futures contract, the owner of a stored commodity can set the sales price before he actually plans to sell it in the spot market. An offsetting transaction is then made in the futures market when he does sell the stored product. Since the cash and futures prices tend to move together over time he has effectively hedged his position and locked-in a price for the commodity. This effectively reduces the risk associated with storing the commodity during a period of fluctuating prices. The same mechanism in reverse order is used by a buyer who has a known future use for the commodity and who wishes to fix a price now. He buys a futures contract now with an offsetting sale later when the commodity is actually purchased in the open market.

Speculative trading plays an important role in the futures market in that it expands the volume and permits the continued existence of the market. Basically, the speculator is trying to make money on the futures contract itself by anticipating the movement of contract prices. It is important to note that futures contracts are nearly always offset before the delivery date. Neither the buyer nor the seller of the futures contract intends to actually exchange the product. It is not the same as a forward contract which will be discussed in a later section. Primarily futures markets are market facilitating devices which permit risk to be shifted and which may enhance market information availability.

Basic Requirements

Futures markets are much more complex than this abbreviated discussion may imply. Space does not permit a detailed discussion which is readily available in futures trading texts and guides. Certain basic requirements for a successful market are recognized, however.

- (1) As with any organized exchange, the commodity must have some general interest so a large number of buyers and sellers will be encouraged to participate.
- (2) The potential to set meaningful uniform grades and standards is particularly important. Organized futures markets are conducted over large distances and contracts are narrowly specified. The commodity must lend itself to a standard description so a readily tradable contract can be specified. This may be a problem for many fishery products, although frozen blocks and frozen shrimp might fit this requirement.
- (3) Volume potential must be fairly large so that an organized exchange will have the incentive to develop the contract and undertake

its trading. The overhead of the exchange has to be covered by the transaction charge and volume helps to keep this down.

Application to Fish Marketing

It is evident that futures markets have limited potential for many fisheries because of the lack of standard grades and product descriptions. Standardized storable products, such as frozen fish blocks or shrimp, come as close to meeting the criteria as any seafood product.

The concept of futures contracts is not entirely new to the seafood industry. In 1965 a contract for frozen shrimp was developed and offered for trading by the Chicago Mercantile Exchange. Trading continued for one year until a short production season resulted in very low storage holdings and limited use of the contract by hedgers. While this contract experience is not fully documented it apparently failed for lack of volume rather than for any technical feasibility reason.

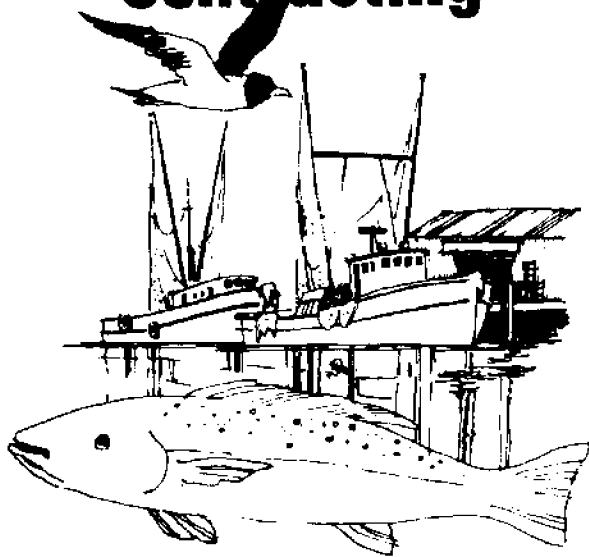
Fishermen will not participate in the futures market directly unless they process and store their fish for future sale. While this seldom is done individually, fishermen may participate in such activities through forward integration into processing in a cooperative or corporate structure. As other alternatives are used, fishermen may have a more direct interest in such risk-shifting arrangements as futures trading. Futures trading may benefit the entire industry because it facilitates better management of storage stocks and improves market information.

Impacts

Organized exchanges represent a significant change from the traditional private trading patterns which dominate many fish markets. Organized auction markets have the greatest potential for direct benefits to fishermen. As grades and product standards are established, electronic (hands-off) auctions will provide still more benefits. The development of such auctions should impact fishermen a great deal if they are successful in attracting a larger number of potential buyers. Market access can be greatly enhanced for buyers as well as sellers through well-organized, efficiently operated auctions. Organized exchanges provide improved market information which also should benefit producers in regions where similar species are sold but an auction is not yet established.

Efficiencies gained through improving the competitive environment in fish marketing should benefit consumers to the extent that competition exists at all levels of the seafood marketing system. This benefit should be realized both by reduced prices and by a more responsive system which reacts quickly and efficiently to changing consumer demand.

Forward Contracting



Because of the perishability of their product, commercial fishermen continually try to identify their market outlet before the catch is landed. Typically these arrangements are informal, consisting of an unwritten agreement that the entire catch or a portion of it be sold to the same buyer at the prevailing price. In these cases, the buyer generally sets the price.

The forward sales arrangements discussed here differ from informal agreements in that they are written and legally binding on the participants.

Definition

Contract integration consists of a formal, written agreement between a buyer and seller relating to the delivery, pricing and acceptance of a specified amount of product at a specified time and place. Since fishermen typically make the arrangements prior to a voyage, the instrument of this agreement can be given the more complete title of "forward contract." All forward contracts commit buyers and sellers to particular exchange arrangements prior to delivery, but specific contract terms can vary widely depending on the characteristics and requirements of the individual fisheries involved.

Delivery arrangements may specify when, where and how much product is to be delivered and define acceptability standards for the product. Price agreements may specify either a set price or a formula by which the price is to be determined. Formula accords may use reported prices, such as those published by the National Marine Fisheries Service Market News Service, as the base price and further stipulate premiums and discounts based on location and quality. Considering the wide price variability of many fishery products, formula pricing seems better suited than fixed pricing.

Contracts can specify terms other than those relating to price and quantity. These other factors are used to classify different kinds of forward contracts and are discussed below.

Classification of Contracts

Market specification contracts specify the quantity of the product to be delivered and may define minimum acceptable quality. Fisherman make all decisions relating to when, where and how to fish and are responsible for their own production.

Production management contracts specify both the quantity and quality of the product to be delivered. Ownership does not change hands until the product is physically transferred from seller to buyer, but often the buyer will supply an input such as ice or will require particular holding practices at sea as a means of ensuring quality. In cases where

the buyer controls storage practices, management of the production enterprise is at least partially shifted from the fisherman to the buyer. Supply arrangements, commonly known as joint ventures, between U.S. fishermen and foreign factory ships are closer to production management contracts than they are to more technically defined joint ventures. True joint ventures are discussed in the following section.

Resource providing contracts stipulate that the contractor provides most inputs and makes most management decisions. Conceivably the contractor may even own the product prior to delivery, thus reducing the fisherman's inputs to providing the vessel and labor. Among fishery products, portions of the salmon and tuna canning industries come closest to this form of contract with the cannery providing fuel, gear and credit. The fishermen retain considerable managerial discretion even in these fisheries, yet the stigma associated with operating a company boat is still a negative factor in many areas.

Advantages of Contracting

Many of the incentives for contract arrangements are associated with the amount and sharing of risks for both producers and buyers. The concept of risk in the fishing industry discussed here is related to marketing decisions. Advantages and disadvantages peculiar to buyers and sellers also are examined. There are relatively few documented cases of formal contracts in the commercial fishing sector, so much of the discussion deals with possible, or theoretical, benefits. Actual cases from specific fisheries are identified as such.

Contracts and Risk

There is considerable financial risk associated with the commercial fishing industry resulting from the uncertainty about both production (landings) and prices. Production risk is related to fluctuations in the stock, weather conditions and regulatory changes (access, quotas, contamination). Price risk is directly associated with the variability of landings of a species in a local area. Price also may change unexpectedly because of the effects of overall landings, imports and inventories (including meat and other fish species) as well as changes in consumer tastes. Market access is a third form of risk which affects fishermen.

Market access risk largely can be alleviated through contracting which guarantees an outlet for at least part of the catch. Contracting, however, has little direct effect on the overall level of either the catch or price risks. It may, nevertheless, play an important role in determining who shoulders the risk. Since risk can be considered undesirable if all

other things are constant, the sharing of it between producers and buyers is an important aspect of any agreement.

There are three principal ways to manage risk in the fishing sector. The first is to have sufficient financial strength to survive low income periods. During the early 1960's, for example, a number of yellow perch processors in the Great Lakes region went under when their high-cost inventory was devalued by an abnormally strong spring perch run. Firms which were stronger financially (or which had smaller inventories) were able to absorb the temporary loss and continue in business. In general, firms with greater financial reserves or access to capital are better able to absorb this risk than weaker firms.

The second way to manage risk is related to the very local nature of temporary shortages and overflows. If production from a wider geographical area is pooled, the effect of supply swings in a single port is minimized and total supply risk is reduced. Theoretically, the wider the area included in the supply pool, the lower the supply risk will be. Vegetable canners take advantage of this risk-reducing method by contracting for production in diverse geographical regions, including the Northeast, Midwest and Northwest. In the fishing sector salmon canners have set up buying stations in the principal ports of a region to protect against shifts in the strength of the spawning run.

Acquiring up-to-date information about landings and prices at other ports is closely related to product pooling. Adequate information also can reduce risk by providing a basis for projecting the entire supply converging on the wholesale market and their likely price effects. Because of their closeness to the wholesale markets, buyers often are in a better position than fishermen to collect information over a wide area. Similarly, buyers typically are better situated to spread risk by operating over a larger region than are fishermen.

Finally, risk faced by a particular party can be reduced by passing it along to parties who make a business of accepting it. The futures market discussed previously is one institution established for this purpose. By selling contracts in the futures market, a holder of inventories can theoretically shift all risk to speculators and lock in a margin between the buying price (or production cost) and selling price. In practice, the return from using the futures market is not as assured as this. In any event, the present usefulness of the futures market for the fishing sector is limited because no fish product contracts are traded currently. These markets do, nevertheless, have substantial potential for risk spreading. Because contracts typically are for relatively large amounts of a particular product (the shrimp contract was in 5,000-pound units), the use of these markets is effectively limited to larger operators.

Advantages for Fishermen

Risk reduction is the principal benefit of contracting for the fisherman. Market access risk can be alleviated by assuring an outlet for at least part of the catch. Income risk can be partially shifted to buyers who are often in a better position to deal with it. Reduced risk makes financing easier and less costly for the fisherman. In most cases where the agreed-upon price is keyed to a competitively determined price at a major port (with appropriate transport cost adjustments) the producer has a reasonable expectation of receiving a fair price.

Advantages for Buyers

The fish buyer benefits from the assurance that a portion of the supply in a particular port will be available on a regular basis. Total supply assurance increases if contracting is extended over a wider geographical area. Supply assurance also makes other risk-spreading options feasible. With processing typically involving considerable overhead costs, a secure supply can be an important aspect of cost control because it allows near-capacity operations. Contracting also may reduce procurement costs. Without an agreement, each delivery of fish must be examined and its price negotiated. With a contract (or other ongoing agreement) the process can be streamlined.

Advantages for Fishery Development

Contract agreements can benefit the entire fishery if they allow for better planning and coordination. In the development of new fisheries, the use of contracts to assure a market for the fisherman and a supply for the buyer permits each to make plans and investments necessary to make the entire system operable. Otherwise, the risk may be too great for either party to afford the investments.

Resource providing contracts allow buyers to increase fishing efforts and speed the adoption of new technology. In a new fishery these contracts may expand the number of vessels rapidly by reducing the capital required of each fisherman. Buyers also may use requirements contracts to ensure quick adoption of new technology by stipulating that all contracted suppliers use a particular type of gear, storage technique or other technical device.

Disadvantages of Contracting

Disadvantages for Fishermen

The principal disadvantage of contracting for the producer is that it reduces flexibility. The contracted fisherman is unable to take advantage of a higher

price offered by another fish house or to switch to a different species fishery which promises a higher return. The increase in price stability which often comes with contracting can work against, as well as for, the fisherman.

The fisherman involved with a resource providing contract has even less flexibility. Since the contractor may own an interest in the vessel, a switch of buyers may mean refinancing or giving up the vessel. This type of contract may be an expensive source of credit. For salmon seiners in southeast Alaska, the cost of a resource providing or requirements contract takes another form. With the strength of the spawning run changing from area to area over the years, a vessel tied to one area must give up good fishing opportunities if they are more than a few days' sail from the home cannery.

Disadvantages for Buyers

The contracting buyer also forfeits flexibility. He is unable to switch species or ports as supply and demand change. The loss of flexibility is least limiting for the hand cutter and most constraining for the mechanized processor whose equipment is highly specialized for a particular species.

If the contract specifies minimum prices or volume, the contractor may face increased risk compared with cash-market transactions. Some risks may be alleviated or passed along, but the buyer likely must accept increased risk with its associated costs.

Aggregate Disadvantages

On an aggregate basis contracting tends to reduce the amount and quality of public market information. This loss is a natural result of internalized transactions which no longer are open to individuals or third-party price reporters. Prices established under contract may be proprietary information or, if keyed to some other reported price, do not represent any new market information. As contracting becomes more common the quality of reported information also declines because observed prices are based on a decreasing proportion of the total volume traded and may be less representative of underlying market forces. There is concern that reported prices could be easily manipulated in these "thin" markets and that the uncontracted market could become erratic with widely varying reported prices.

The decline in public price information is most noticeable among agricultural products like fresh and carcass beef. Among the major fishery products the decline in the quality of price information can be observed in the Texas shrimp industry although it is unrelated to contracting. Many local fish houses buy

at a price related to the reported Brownsville "auction" price although that market handles less than 10 percent of the total Texas landings for some sizes during some seasons. At the next level in the marketing chain, prices for many species of fresh fish are established by quotations from the Fulton Fish Market as reported in the National Marine Fisheries Service **Green Sheet**. Some buyers feel this practice is followed even for pricing fresh salmon on the West Coast although very little of the total salmon volume is traded at the Fulton Market. Again this situation is unrelated to contracting, but it does suggest the problems that significant numbers of formula pricing contracts could cause.

Requirements and Guidelines for Successful Contracting

Forward contracts must be adapted specifically to the differing conditions in diverse fisheries and the needs of particular buyers and fishermen. For this reason, it is not possible to describe in detail how an operable contract might be written or to specify the conditions which are required for forward contracting to improve the situation of buyers and/or fishermen. There are, nevertheless, some basic necessary conditions and factors to be considered for operable contractual arrangements.

One requirement is that most trade conditions must be specified in an unambiguous fashion. In California, a contract between producers and processors stipulated the procedures for weighing, rejecting and allowing for ice and slime for each of several species. Not all possible conditions are, or should be, included, but the principal ones should be stated in a way that can be evaluated objectively by both parties or at least determined by a third party. Unfortunately this requirement is difficult to satisfy in the fishing industry because of limited objective quality standards. If the buyer and seller cannot agree on how to identify a poor load of fish, there is no basis for a price specification contract; each transaction must be negotiated on an individual basis.

Contract arrangements also require that buyers and sellers trust that the other party will act in an equitable fashion in the myriad of situations not covered by the contract. If a shipment is discounted by a distant buyer for reportedly arriving in poor condition, the fisherman must be able to presume that the fish really did arrive in poor condition (due to shipping problems) and not that the buyer is conspiring against him. This trust may be difficult to establish in some parts of the fishing industry because of the legendary animosity between dealers and fishermen in some ports.

Supply and demand also must be stable enough

that the parties are willing to enter into an agreement. The Florida Spanish mackerel fishery, for example, is characterized by such substantial daily variations in success rates that a local buyer could be alternatively swamped and then out of fish in the course of a few days. With more storable products and larger geographic areas covered by a buyer, local factors will average out and buyers will be more agreeable to contracting.

Fishermen should not expect a contract alone to provide a more equitable return than other sales arrangements. The contract only specifies how prices will be determined and is subject to negotiation as any other contract term. A basically competitive market is needed for contracts to serve a useful purpose. If producers are receiving low prices because of weak bargaining power due to the small number or limited competition among fish buyers, then the negotiated contract terms also can be expected to be unfavorable. Conversely, if the fishermen are in a good bargaining position, the contract terms should reflect this situation by specifying favorable price determination conditions. The latter is seen in the Pacific tuna fleet where contract prices are established by the American Tuna Sales Association, a producers' bargaining group. Vessels contract with individual canneries to deliver the entire catch for a voyage at the established price. As a contrast, in past years the offshore trawl fishery in the Canadian maritime provinces has worked under a multiseason set price which fell increasingly below that received by inshore trawlers.

Contracting may even make pricing decisions more difficult. Conceivably, contracts can be so involved and contain so many conditions that fishermen may never be sure which of several contracts to sign or what prices will be received. Some standardization of contracts is needed so comparisons can be made more easily. The problem has become so acute in the agricultural sector that the Department of Agriculture is experimenting with a program which reports selected processing vegetable contract conditions and prices prior to the planting season.

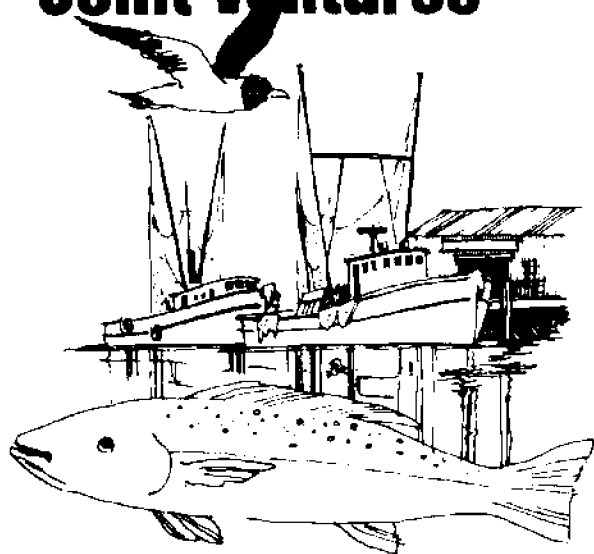
A list of information sources related to contracting is given at the end of this report. Further information also may be obtained by examining contracting in other areas and in other food industries. Extension marketing specialists, who can be contacted through the local county marine agent, may be able to provide nearby examples.

Impacts

The effective use of contracting makes markets more accessible for fishermen and may enhance long-run planning and profitability. The buyer, in turn, receives more assured supplies and can coordi-

nate his marketing efforts better. Contracts could play a significant role in encouraging fishery development by improving coordination and reducing market access risk. In a competitive market environment the efficiencies gained from improved coordination will be passed along to consumers in the form of lower prices and seafood products which meet their needs better.

Integration through Ownership and Joint Ventures



Definitions

Vertical integration through ownership involves participation at two or more levels in the harvesting-processing-marketing chain by the same business organization. A small lobster fisherman who owns a retail fish shop and a giant cooperative cannery are both vertically integrated through ownership. In the former case the ownership is individual while the latter involves group ownership through a cooperative. Group ownership also may be organized as a partnership or stock corporation.

Integration through ownership need not imply that successive steps in the production-marketing chain are wholly owned. Two principal alternatives should be emphasized. First, the producer may own the product but not the processing, storage and distribution facilities. Under this arrangement, processing and handling would be done on a contractual or "custom" basis. The producer retains title to the product with the associated risks and profit potential.

Second, processing and distribution facilities may be owned jointly by a group of producers and a processing marketing or distributing firm. Under this arrangement, aptly known as a joint venture, both participants maintain separate identities and share only in the profits and losses from their joint operation. True joint ventures are found in U.S. agriculture but are seldom seen in the fishing sector. The term "joint venture" applied colloquially to arrangements between foreign processing vessels and U.S. fishermen in connection with the Fishery Conservation and Management Act of 1976 (FCMA) is, in most cases, actually a form of contract integration discussed in the previous section.

The distinctions between wholly-owned operations, ownership of product but not processing facilities and joint ventures are principally ones of organization, access to capital and distribution or surplus income. There are no clearcut distinctions in purpose.

All these examples refer to so-called forward integration. Processors and others also may integrate backward into harvesting to provide all or part of their raw product needs. Partial backward integration often is associated with providing processors and dealers with an assured supply source, thus reducing the bargaining power of independent fishermen. In some cases fishermen have integrated backward by purchasing fuel, ice or repair facilities. The emphasis in this section is on forward integration by producers although backward integration is perhaps more common in many fisheries. Fishermen are interested in forward integration because it represents an available alternate to influence the marketing of their product.

Advantages of Integration

Most simply, forward vertical integration provides an opportunity to increase returns (profits) or to engage in an operation not otherwise feasible. The factors which permit increased returns to vertically integrated operations differ, however. A common reason may be excess profits earned by dealers and processors. If excess profits are earned at these levels, fishermen can share the profits if they integrate forward into marketing and processing. Although results were not conclusive, an analysis of the yellow perch marketing system in the Great Lakes strongly suggested that some processors were making large profits. In order to capture this profit for themselves, members of a cooperative in Ontario, Canada, have begun to process a portion of their catch and sell fillets rather than round perch. In this case contract processing would have required a smaller initial investment, but the existing firms did not have much incentive to cooperate with a competitor.

Improved efficiency for integrated firms may come through better coordination when information and decision-making are handled within the firm. It is important for the producer to know supply and demand conditions in distant markets when he makes short-term production decisions. This information is easier to acquire if production and marketing are carried out within the same organization.

Vertical integration is sometimes needed to circumvent a bottleneck such as market access. In a fishery without processing facilities or distribution systems, it often is necessary to develop the entire vertical system simultaneously. Also, closing a facility may require integration if market access is to be preserved. For example, when a fish meal plant in Rhode Island was closed by a private firm the local fishermen's cooperative purchased and operated it as an outlet for their incidental trash-fish catch.

The access bottleneck may be one of skill rather than physical facilities. A joint venture or custom processing arrangement with an existing firm that has managerial, packing and other skills would remedy this problem.

Some advantages of integration are based on financial arrangements rather than any real improvements in productivity. For example, a fishing cooperative might have a better source of debt capital financing through its members or the Bank for Cooperatives than a processing or distributing firm. Through a joint venture with a cooperative, a distribution firm might own and operate fishery processing facilities more economically than it could alone. Furthermore, with profits from proprietary firms and cooperatives taxed in an entirely different manner, the operation of a joint venture between cooperatives and private firms conceptually could

have substantial tax benefits if it were established with this in mind.

Additional advantages to vertical integration, such as the potential increased assurance of supply, are similar to those discussed under contract integration. Joint ventures may provide additional supply assurance since these relationships are more permanent with more mutual interest involved than is generally true in a contract situation.

Disadvantages of Integration

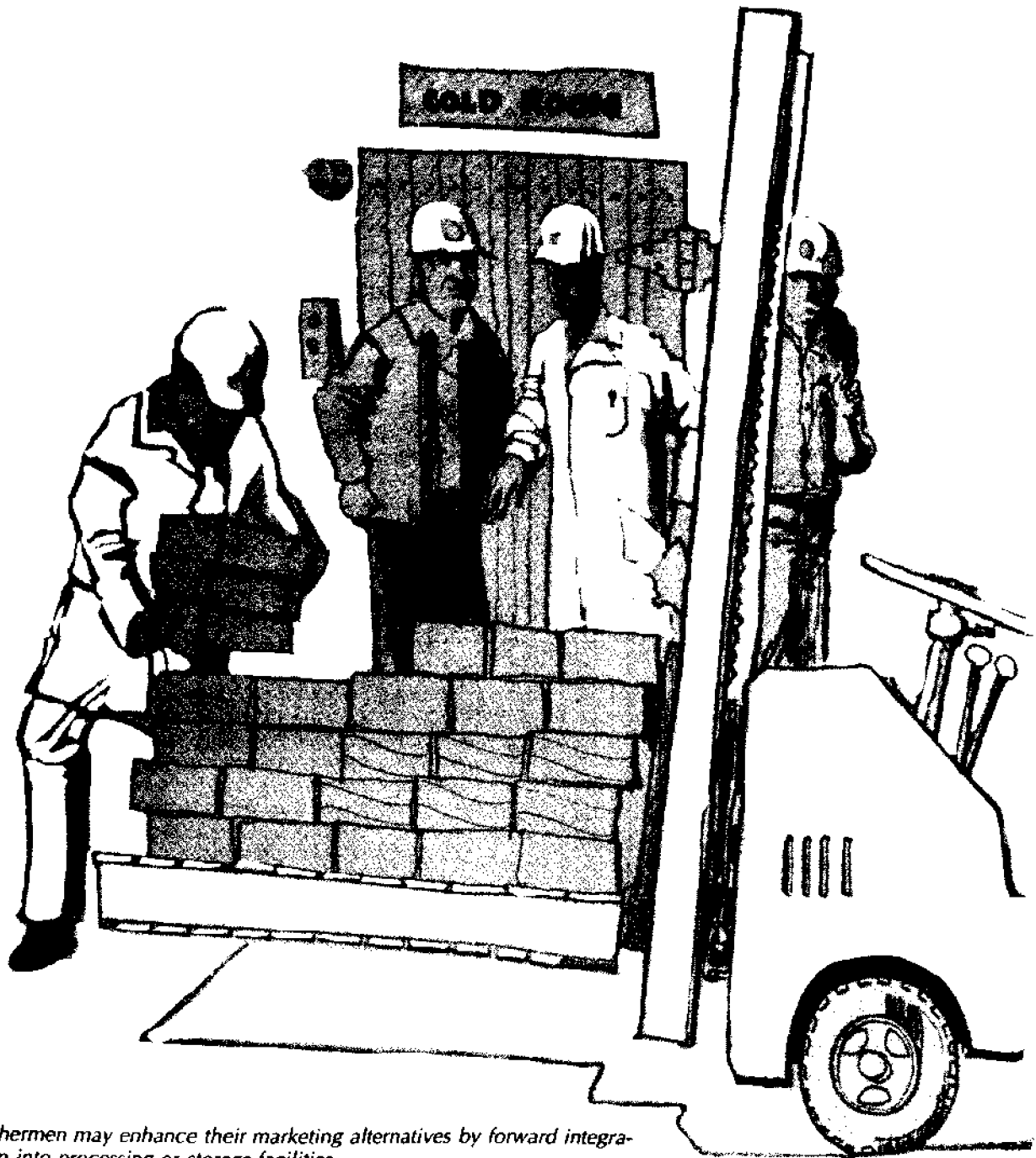
The principal disadvantage of vertical integration is the additional capital and time requirements, both of which are limited for many fishermen. Substantial capital expenditures are required to integrate into freezing, canning or meal processing. Integration on a group basis, especially if the group is organized as a legal cooperative, eases the debt capital barrier because of the larger number involved and possible better access to capital through the Bank for Cooperatives. If the debt capital requirement is softened for a cooperative, however, the managerial requirement may be increased. Often the manager is expected to run a multi-million dollar operation while not earning more than any member. A good cooperative manager should be paid as much as the manager of a comparable private firm.

While it may be difficult to expand vertically it also is difficult to withdraw. Significant amounts of capital are tied up in an enterprise which may not have many potential buyers and exit may be achieved only at a considerable loss.

Integrated operations will not always provide the kind of performance expected. One example is when integration is used as a means of bypassing powerful buyers in the area. These buyers may not be evaded so easily, however. They may temporarily raise prices to attract sellers away from the new buyer, forcing dock prices above the break-even point. A new firm with substantial capital commitments may not be able to withstand the losses for long.

Fishermen also may learn that there are different responsibilities and risks involved in dealing further along the marketing chain. Payment to the boat may no longer be made as soon as the catch is unloaded. The value may not be determined for several days while the product waits for a retail buyer or during shipment to a distant market. The fisherman must bear the risk of delayed payments and even defaults by distant buyers. The federal government provides some protection from default in the livestock industry, but no such special protection exists for fishermen.

An integration plan of any magnitude is likely to require the cooperation of a group of producers,



Fishermen may enhance their marketing alternatives by forward integration into processing or storage facilities.

and such cooperation is not easy to develop and maintain. When times are good fishermen work hard to make as much as possible; when times are bad they work even harder to make a living wage. Typically one strong leader carries most of the organizational burden. This person is responsible for organizing others and must find time to hold the necessary meetings, develop contracts and make the many other business arrangements necessary for success.

Once preliminary agreements have been made, it is necessary to find a source of funds. Fishermen are sometimes at a disadvantage since their lack of experience makes it difficult for them to put their requests into a form that is readily acceptable to a banker or other loan officer. In this case, it is advisable to hire a specialist to assist in preparing the necessary documents.

Entry may be made through new facility construction or purchase of an existing one. Purchasing an existing firm may be less expensive than construction. It also removes a potential competitor and insures an ongoing business which reduces some of the start-up problems of a new firm. In general, entry which does not compete with existing firms or which uses more efficient technology or management techniques than competitors is favored. Producers are cautioned about entering an area already well-populated by processors or dealers unless there is good reason to believe that the new firm will be notably more efficient.

Requirements and Guidelines for Successful Integration

Successful vertical integration requires careful planning before investments are made. Particular attention should be given to several requirements.

Capable Management

The operation of a processing plant or marketing firm requires specialized skills in finance, personnel management and marketing as well as the technical aspects. These skills may differ significantly from those needed to be a successful fisherman, yet they are essential and should not be considered secondary or parttime. A national survey of fishery cooperatives in 1970 indicated that the selection of a manager was the key factor for success. Good managers are always in demand and must be well-paid if a capable staff is to be attracted and retained. Management also must be given the authority necessary to carry out its responsibilities. If the venture is a cooperative, a good board also is needed and attention must be given to maintaining communications with member fishermen.

Adequate Capital

Enough capital must be available to establish an operation which is large enough to be technically efficient. The capital requirement may be quite large for some products, possibly exceeding one million dollars. Firms with off-season storage sometimes need substantial short-term funding to finance this inventory. The under-capitalized firm is especially vulnerable to unfavorable market changes, even short-term ones, and may either go bankrupt or be forced to make adverse transactions. In contrast, better financed firms can ride out short-term problems.

Feasibility Analysis

Before investing in an integrated project a careful and thorough feasibility analysis should be done by an impartial and expert third party. Often this analysis will identify potential problems which were not evident in a more cursory evaluation. The review should be broad enough to include projected operating costs and returns, identify potential markets and indicate the likely response by existing firms. Market access should not be assumed, particularly if the product is specialized or sells in an industry with few firms. For example, a small mackerel canner may find access difficult because wholesalers buy all their canned fish needs from the same supplier. In a highly concentrated industry existing firms may resist new entrants by reducing prices and making market access more difficult. Market response is difficult to predict, but it should be considered in the analysis.

Joint ventures which entail shared responsibilities by two independent firms require additional planning. The analysis should indicate how responsibilities will be shared and clearly delineate how profits will be determined and shared. Termination plans also must be outlined since conditions leading to the development of a joint venture may change or disappear over time. Changing competitive factors or interests of the two parties in the joint venture may lead to a desire of one or both to terminate the relationship. Without an agreed-upon procedure for dividing the assets and liabilities of the joint venture long and costly legal proceedings may result.

Member Commitment

In any form of group forward integration, it is important that all members be committed to making it succeed. This can be a particular problem with cooperatives. If members are not committed to delivering their fish to the cooperative, they may be tempted to sell independently during periods of temporarily high prices. They also may be tempted to sell the best quality on the open market and

deliver what is left to the cooperative. This reduces the volume and quality of fish being handled by the cooperative.

Some agreement form may be used which commits the members to deliver all of their production to the cooperative. This may be less of a problem with other forms of integration organization, but an assurance of sufficient raw products is always important.

Initiating Action

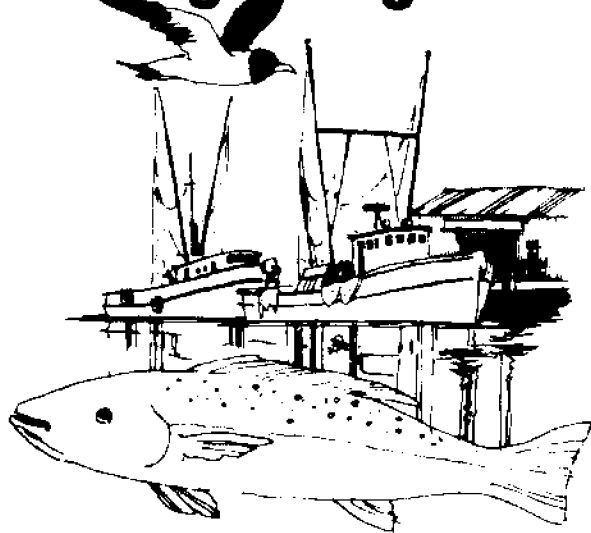
Fishermen wishing to pursue the idea of forward integration should begin by establishing a small working committee to determine objectives, identify alternatives and gather information. The final section of this report discusses ways to contact information sources. A number of publications also are listed which give guidance on organizing, particularly using a cooperative structure.

Impacts

Forward vertical integration into handling, processing and marketing provides fishermen with an opportunity for better market access and greater returns. This does not come without significant costs and some additional risks. Fishery development could be enhanced with vertically integrated systems which aid technology transfer, improve financing opportunities and management, enhance competition and reduce risk.

Consumers may benefit in the long run if integration improves coordination and efficiency in the seafood marketing system and stimulates increased production. They also will benefit if forward integration by fishermen results in increased competition in the processing and/or marketing of fish at industry levels where it does not exist.

Group Bargaining



Group bargaining usually is accomplished by collective action of fishermen with a common market interest. These fishermen organize as a bargaining association, but often the association's name includes the word "marketing." Bargaining associations sometimes do take possession, process or inventory products and/or perform other marketing functions. When this occurs, they become a marketing association — a vertically integrated business as discussed in the previous section. This discussion focuses primarily on the bargaining activity as a separate identifiable function.

Bargaining associations are concentrated on the West Coast and in Alaska. There are less in the East and on the Gulf Coast, both in absolute numbers and in proportion to the number of commercial fishermen.

What Is Group Bargaining?

Group bargaining in the seafood industry refers to a situation where a group of producers (usually commercial fishermen) agree on the price and other market conditions they want and bargain with the buyer or buyers as a group. In situations where there are many sellers and few buyers, or vice versa, the few may be able to exert some market power over the many. When the many organize and act as one, the comparative advantage of the few (whether buyers or sellers) can be offset. There have been instances when the sellers' bargaining association eventually exerts more power than the few buyers.

How Does Group Bargaining Work?

Most bargaining associations are organized under federal and state cooperative statutes. This is not absolutely necessary, however; some state statutes allow bargaining associations to operate under ordinary corporation or special laws.

Bargaining associations usually evolve where adequate processing and marketing services already exist but fishermen feel they are being treated inequitably as individuals. For example, fishermen might get together and discuss the large spread between prices they receive and prices received by local buyers. This may be attributed to relative differences in market power although this may be only one of many causes of large price spreads. It becomes apparent to the local fishermen that group action might result in higher prices or, at least, better individual treatment. In some cases, a group may see that some fishermen are getting preferential treatment. Those not getting preferential treatment will then act together in an attempt to gain more equitable treatment.

As with any producer organization, one individual with the time, energy and desire must take the leadership and form the association. Often the idea will lie dormant for years until the right leader appears.

Once the association is organized under the appropriate statutes, membership is solicited. Membership usually expands beyond the local port, thereby increasing bargaining power. If the membership represents a significant enough quantity of a region's product, the association will have the power necessary to operate.

The bargaining association acts as a third party in negotiating the fishermen/members' interest with buyers. As the season approaches the association's bargaining agent, a committee of members or a committee of directors meets to negotiate with one or more buyers. Often there is a traditional price leader among buyers and the association may negotiate alone with that buyer. The buyer and the association attempt to agree on price and other marketing arrangements.

If a satisfactory agreement is not reached, association members may be called upon to withhold product from the market. This is the only effective way for fishermen to exert market power, but there are a number of problems that may arise.

Some members may need the cash flow to avoid bankruptcy and will be forced to deliver regardless of the withholding action. It takes only a small percentage of non-complying fishermen to harvest much of the product that normally would have been shared by other association members and to supply enough for buyers to survive a long strike. When it is demonstrated that the association's efforts are futile, member support is often short lived. For this reason, bargaining associations are reluctant to withhold product.

There is another characteristic of fishing that makes strike very risky for fishermen. Some seafood harvesting is highly regulated. There are short seasons on Maine lobster. Columbia River salmon are regulated to the day and hour. Abalone harvest is highly restricted. If the strike overlaps the legal harvesting period, the entire season's production may be foregone.

In addition to regulations, many seafoods have a natural biological cycle that results in relatively short periods when harvest is feasible and/or most efficient. The molt cycle of crabs affects their harvestability and marketability. The harvest of herring for roe must occur within two or three weeks. King mackerel and tuna pass by on their migrations during a relatively short and unpredictable period. If the association is on strike, harvest will be foregone. In the case of highly migratory fish, the harvest will be sacrificed to the benefit of those further along the migratory path.

To counteract such difficulties, some bargaining associations have allowed members to harvest without a price or marketing agreement with the association purchasing the product directly. Marketing by the association may become technologically feasible if little processing is required or if processing and cold storage can be obtained on a custom basis. In this case, the association becomes an integrated marketing association.

One Oregon bargaining association was successful in purchasing and marketing members' salmon for two months. Salmon require very little processing and no storage. The same association was less successful in purchasing members' shrimp since shrimp are highly processed and required freezer storage for long periods of time. Being unable to obtain reasonable processing and storage rates, the association incurred a substantial loss in the interest of a higher price for the following season.

Bargaining associations are funded through membership fees and dues. Members may be required to pay the association directly. Such fees or dues may be some fraction of price, gross revenues or investment, or there may simply be a flat annual fee for all members. Several bargaining associations contract with seafood buyers who, in turn, deduct the fees from payments for seafood deliveries and forward the money to the association in the name of members.

Exclusive Agency Bargaining

A more powerful form of group bargaining is called exclusive agency bargaining. All fishermen in a region, whether they participate or not, may benefit from the efforts of voluntary bargaining arrangements. This encourages a lack of participation and may lead to the effort's ultimate failure because of insufficient support. Exclusive agency bargaining sets a procedure to select a bargaining agent for producers. Once selected this agent, or agency, represents all producers in subsequent negotiations and decisions made are binding on all producers and buyers. Enabling legislation for this arrangement does not exist in the fishing industry, but a precedent has been established in Michigan for the fruit and vegetable industries. The latter is authorized under marketing board legislation.

Conditions Necessary for Success

Bargaining associations are more likely to succeed where marketing services such as buyers and physical facilities are available and where a small percentage of fishermen produce the major share of the product, where there are common and uniform products, where there is good regional communication among fishermen, and where there is a need.

The association's strength will be greatly undermined if members are having financial difficulties. A fisherman troubled by meeting payments will be hesitant to strike with fellow members for fear of losing his boat and gear in foreclosure proceedings. Petty disagreements among geographic regions and different types of fishermen are another common cause for an association's failure. Independence is considered a virtue among fishermen, and they are quick to question the theoretical benefits that might be gained from giving up some independence.

Organizations should begin with interested fishermen forming a small committee to gather information and assess the need for action. Ways to contact information sources are discussed in the final section of this report.

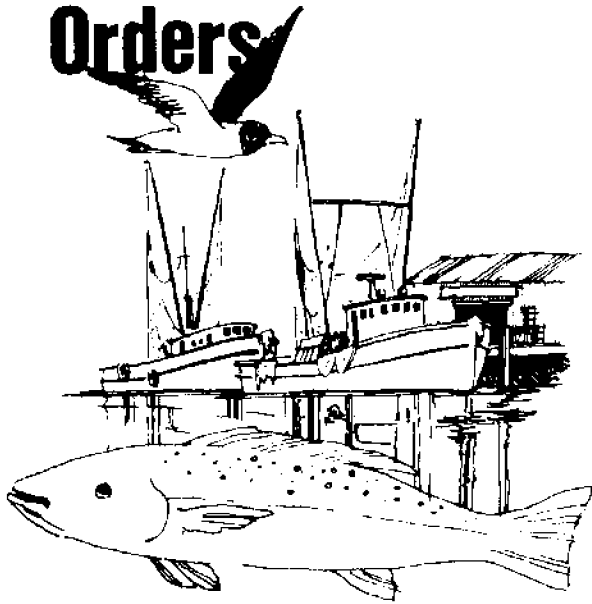
Impact of Bargaining Associations

Where bargaining associations have been strong for ten years or more, there has been a corresponding uniformity of price and quality. While this uniformity over time and among ports may be due partially to changes in markets, most West Coast industry leaders agree that the bargaining associations have been an important contributing factor.

Where bargaining associations have existed, each season's starting price tends to be similar to the previous season's ending price with adjustments made as supply and demand conditions are revealed during the season. Starting the season at the previous year's price has reduced the fishermen's and buyers' financial risk and reduced the high degree of speculation which was common without a strong bargaining association.

The combined uniformity and price carry-over have greatly increased the stability of those seafood markets in which bargaining associations have been important. There have been two instances of the buyers offering a price higher than that asked by the association. In both instances, the association felt it had better market information than the buyers. The more progressive and successful associations have learned how to analyze the market and bargain based on their knowledge of consumer demand. Many associations argue that their actions have benefitted consumers with more realistic, stable prices while benefitting members with more equitable treatment in the marketplace.

Marketing Orders



Description

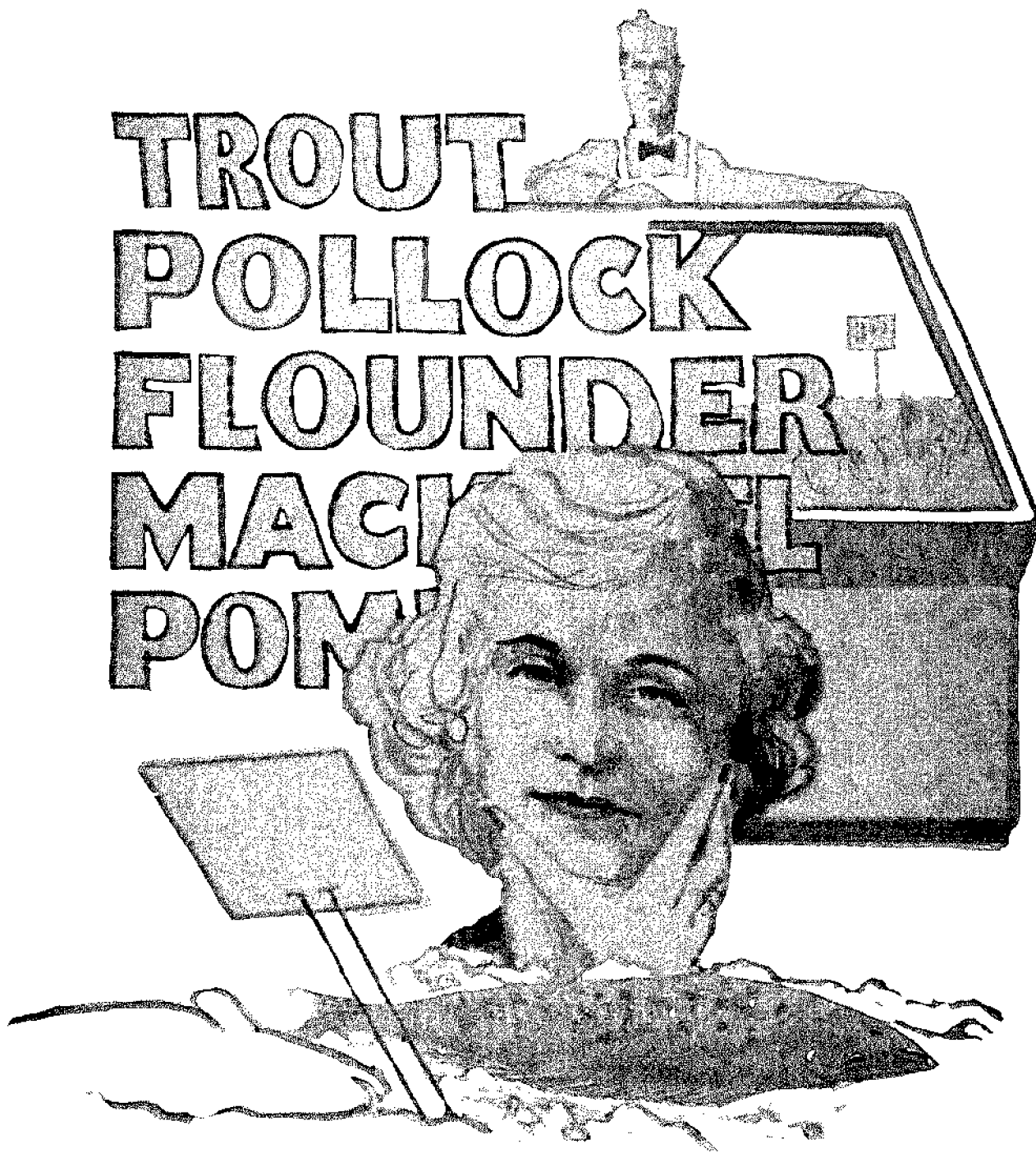
A marketing order represents a cooperative endeavor between a government body and a commodity industry in which committees of producers and handlers make the principal marketing decisions within the authority of the law. Everyone within a particular industry is governed by the program which includes certain safeguards for consumers and others. Marketing orders have been used primarily for agricultural commodities, but they could be used for seafoods. The success of a seafood marketing order would depend on the producers and handlers who must initiate, design, approve, operate and terminate the order. Marketing orders may be created by legislative action at either the state or federal level of government.

There are thousands of fishermen whose independent actions and catch volume have little or no effect on the price of seafood they catch. A seafood marketing order would give fishermen a way to work together to solve seafood marketing problems that are too big for individuals to solve alone. For example, a marketing order program could be designed to improve the fishermen's position by working toward solutions of such demand problems as lack of price and quantity information and such supply problems as seasonal market gluts. These, as well as other uses, make market orders a potential problem-solving tool in seafood marketing.

Marketing decision-making is concentrated in the advanced stages of the seafood system. Firms involved in the final marketing activity can correlate their buying and selling operations with consumer needs. Uncoordinated production and marketing at the fisherman level will lead, at best, to accidental matches of seafood supplies with consumers' needs. This problem is compounded by weather, seafood perishability and other uncontrollable variables such as the biological stock of available fish. The fisherman, in essence, is at the mercy of the economic system; he is a price taker. The underlying objective of a marketing order program is to minimize the match-up problems of production and utilization of seafood in the marketing system.

Activities Possible under Marketing Orders

A seafood marketing order could authorize (1) regulation of quality, (2) regulation of quantity, (3) standardization of containers and packs, (4) provisions for production and market research, development and promotion, (5) regulation of unfair trade practices, (6) regulation of price posting, and (7) establishing minimum prices and providing information. These activities, which can vary according to seafood product type, are discussed in this section.



The variety of available species compounds the consumer's selection process.

Emphasis is given to those which appear most promising for solutions to problems experienced in marketing seafood.

Regulation of Quality

Quality control keeps inferior grades of seafood out of the marketplace. This is achieved by setting grade and size standards. Although the U.S. Department of Commerce sets standards under a voluntary seafood inspection program, specific quality regulations could be set for a species or product or altered from season to season or within a season when deemed necessary. Fishermen could benefit in several ways from mandatory grade standards.

Quality control allows demands of modern marketing channels to be met on a more consistent basis. There also might be less commodity loss during the marketing process with stringent quality controls. Restrictions which reduce the amount of seafood flowing into the market could help prevent large seasonal price declines which often occur at harvest time. This could increase the fishermen's total revenue.

Despite different demand characteristics for many seafoods, quality standards must reflect consumer desires. Seafood grades and standards have to be meaningful to the trade and consumers if they are to be used to exploit demand differences and result in greater returns to fishermen. Vast differences among seafood products may make grades and standards difficult to establish except for highly processed products.

If supplies of a commodity covered by a federal order are imported, those imports must meet the same quality restrictions. This keeps lower grades from taking value from the higher grades and also can help limit the volume of imports moving into domestic marketing channels. Import controls are not possible under a state marketing order. This would be an important consideration in seafood because of the large volume of imports.

Regulation of Quantity

Quantity can be regulated by controlling product rate-of-flow during the season or by controlling the total quantity of product available during the season. Rate-of-flow regulations allow fishermen to set the amounts and types of products marketed throughout a specified period, from one day to an entire season. This flexibility controls supply, eliminates seasonal market gluts and might reduce large seasonal price fluctuations to stabilize income over time. The effectiveness of rate-of-flow control directly relates to the amount of production covered by competitive products in an order. This would present

a problem in seafood where imports make up a large share of the total supply.

Total quantity can be regulated either through marketing quotas during peak seasons or through product diversion into market areas or product uses not in direct competition with the primary market. Some processing or a storage facility probably would be necessary. Problems will occur if quotas are unacceptable to fishermen and/or storage costs offset any market gains.

Standardization of Containers and Packs

Standardization of containers or packs regulates the size, weight, capacity and dimensions of products marketed by an industry. Uniformity of containers and packs would enable fishermen to serve the needs of the marketing channel and consumers better. This uniformity eliminates deceptive containers and allows for easier service to large buyers. Standardization could address the specific problem of product uniformity and quality standards in seafood marketing. A particular fishery's products could be regulated and improved to meet market needs, and imported products could be required to meet the same standards.

Research, Development and Promotion

If research and development funds were collected, fishermen could sponsor research leading to more efficient marketing and could expand their market through advertising and promotional programs. Production research could foster more reliable quantity and quality in the fishing process. Market research could find new uses for seafood or determine more efficient marketing methods for existing products. In the future, research and development funds could be used to develop foreign or export markets.

Advertising and promotion have become increasingly popular over the years as market development tools. They are intended to change the nature of demand and to increase the quantity moving into both existing and new markets. Well-planned campaigns must teach consumers enough to distinguish among seafood products to insure recall at purchase time. The type of advertising allowed depends on the geographical commodity area covered by the marketing order and the type of legislation authorizing the order.

Smaller industry groups, like those in the seafood industry, have problems generating enough funds to make a significant impact through advertising and promotion. If funded and operated on a broad enough basis, some success could be achieved in developing consumer awareness of handling, storage, preparation and serving seafood

products. This alone could not fully address the problem of enhancing consumers' images of seafood. It also would be necessary to improve product quality, uniformity and standardization.

Regulation of Unfair Trade Practices

The marketing order may specify unfair competitive methods or trade practices such as under-the-table payments. The detailed sales and shipments records required under a market order also provide excellent information for market analysis and industry decision-making. This makes it extremely difficult to participate in trade practices disallowed by the order. Essentially, the order provides marketing "rules" by which the industry operates.

Regulation of Price Posting

All handlers of a commodity can be required to post prices and give specific advance notice of changes. This provision is included to generate confidence in the system and eliminate possible misunderstandings.

Establishing Minimum Prices

In areas where fish can be used for two or more different markets, minimum prices can be established for fish used in those with the highest unit value and where price is less responsive to quantity changes than other markets. Consumers will pay a premium for fresh fillets in some areas. Establishing minimum prices for the fish used would guarantee a production price that fills the fresh fillet market. Additional production, which can be used only in the frozen or cured market at lower prices, would not reduce the prices in the fresh fillet market.

Providing Market Information

Information dissemination is important to industry stability. Accurate economic information on such items as prices, landings, inventories and market outlook improves coordination and gives all fishermen a sounder basis on which to make decisions and take action. Information on current technological progress also may help induce more efficiency. The long-run effect is the confidence which fishermen would develop from economic awareness. The order offers a way to collect this information and make it available to fishermen through market reports and other suitable media outlets.

Market information provisions can contribute to stabilized prices since improved information would permit fishermen to take advantage of the best

available market. Improved access to market information alone could not be expected to alleviate the large price swings which result from the seasonal availability of certain species.

Development and Operation

The Agricultural Marketing and Agreement Act of 1937 provides general authority for federal marketing orders and specifies the commodities to which they may be applied. Seafood is not included. A seafood marketing order would require specific enabling legislation or an amendment of the 1937 act. Obviously this would require the seafood industry to generate considerable political support. Most current marketing orders govern fruit and vegetable marketing. Milk marketing orders are the most sophisticated in terms of special pricing provisions and represent a special case not likely to be duplicated elsewhere.

There are market order-type programs for the fishing industry in several states. Generally, these are commissions or associations with limited powers to assess fees and conduct promotion, research and information dissemination activities. They do not include the broader powers usually associated with market orders. One example is the Oregon Dungeness Crab Commission. Other groups or associations that provide some market order-type services are the Fisheries Association of British Columbia, the Canadian Association of Fish Exporters and the British Columbia Seafood Exporters Association. The enabling legislation for the California market order specifically includes seafood. Enabling legislation simply authorizes development of a market order, it does not make its creation mandatory.

The person who handles the commodity produced under a marketing order is responsible for seeing that it complies with regulations. For fishermen, this would be the seafood house, fish packer or buyer. Usually, it would be the first handler or first seafood buyer.

Fishermen would not be regulated under marketing agreements and orders as long as they just fish. Neither is a retailer regulated as such. It is not practical to apply marketing regulations while the product is still on the boat. Since every fish is handled at least once on its trip to market, it is more logical and easier to regulate at the handler level. Actually, it is the handling function, not the handler, that is being regulated.

The most critical aspect is how the marketing agreement program is tailored. The program must match the circumstances and problems of the industry exactly. This is done in the fishing areas by the industry people who are most familiar with the situation. They analyze their own problems, decide whether or not a marketing program would help the

situation and, if so, draft a program to fit perfectly. Strong industry support is absolutely essential.

A federal (or state) seafood marketing order would be established according to specific guidelines after enabling legislation is passed. Fishermen and seafood handlers would develop a proposal for an order and submit it to the appropriate governing agency. A public hearing then would be held in the geographical area under consideration for the order.

Normally, after the hearing and the proposal evaluation, the agency would issue a decision on the order. A referendum is then held. Under typical legislation, at least two-thirds of the fishermen voting must support the measure, and these two-thirds must represent at least 51 percent of the total catch or 51 percent of the fishermen must vote in favor and they must control two-thirds of the total catch. Exact voting and support requirements would be specified in the enabling legislation. A processor referendum also would be necessary for those species which require a lot of processing. The order is issued only after these steps have been taken.

After an order is established, the program would be administered and operated at the industry level by a committee of fishermen or of fishermen and handlers. A producer assessment would be collected by the handlers to finance the order's operation. Assessments based on pounds, boxes or cartons produced have been the most common. Assessments based on value might be more useful, however. Marketing order contributions of individual fishermen would then move up and down with their incomes rather than being higher during high volume seasons when prices are normally lowest.

Conditions for Success

A number of conditions are necessary for successful marketing order operation, although these are not always required in all situations. Problems addressed by the order and the provisions included may vary, so the ideal conditions also will vary. These conditions would have to be applied to each seafood species and its market to determine the potential for success under a marketing order. The general requirements can be summarized in the following points:

1. A well-defined, geographically concentrated production area where most production is affected by the same economic conditions so production in one area will not be increased to offset gains achieved in another area.
2. Different uses for the commodity and different price reactions to changes in marketed quantities are required so that regulating quantity between uses may result in greater total revenue.
3. Progressive, competent leadership capable of

coordinating production-marketing activities to meet the goals of the producers.

4. Different seasonal demands with different price-quantity responses to allow income increases through rate-of-flow regulation.
5. Funneling commodities through few outlets or firms to provide easier control over the marketing system.

Market orders can do little to solve the problem of limited processing capacity and also are limited in their ability to address or resolve major problems of market access. Fishermen need to be actively involved in developing new or alternative market channels to solve these problems, although funds generated for research and promotion and increased collection and dissemination of market information could help develop better market access.

Market orders are not magic and will not produce miracles. They are not the solution to every problem. They cannot change the underlying market forces of supply and demand, but can help them work more efficiently. They are not the solution to chronic overproduction. Ultimately, the price is still determined by what the consumer is willing to pay, even for those commodities under marketing orders. Marketing orders can help adjust supplies, and market development projects can encourage demand, but do not look for miracles.

Fishermen cannot be guaranteed a given income. Orders usually can either regulate the quantities entering various outlets or influence prices throughout the system, but cannot do both at the same time. Market orders cannot make a poor quality product better, but the quality regulations which can be included in a market order might encourage fishermen to maintain high quality.

Impacts

Agricultural marketing orders have been in effect since the early 1930's, yet very few evaluations of their impact have been completed. The stated objectives of marketing orders are to promote orderly marketing and, thereby, improve producer net incomes. The overall potential impact of improving the seafood marketing environment would have to be weighed against whatever costs would result from operating under a marketing order. To be successful, a seafood marketing order would have to be compatible with the objectives of fishermen, marketing firms and consumers, emphasize market expansion and programs to make marketing less costly, and allow fishermen to increase their profit share without substantially increasing retail prices.

Fishermen

Since marketing order programs cannot limit

catch they are unable to change prices substantially. Programs that have been designed to limit the flow to market apparently have had only short-run effects on prices. The long-run adjustments in a competitive environment generally tend to diminish any significant price effects. Marketing orders can effectively stabilize fishermen's prices and make marketing work more efficiently. Fishermen working under a marketing order might be able to expand domestic and foreign markets, increase marketing efficiency, capture profits from the marketing system or attain better prices from handlers through improved production and marketing practices.

It has been easier to identify the significance of the marketing order as the industry's focal point. Fishermen would benefit from the awareness generated regarding the market and its significance to their economic well-being, and could offer possible solutions to marketing problems. Long-term success in maintaining improved returns from market order advertising programs also depends on the ability to differentiate the product and protect the market.

Marketing orders also would involve costs. Individual fishermen would be required to give up some decision-making power to conform with the program designed to benefit them as a group. The impact would vary among individuals; thus, the distribution of benefits and costs among individuals would be an important consideration.

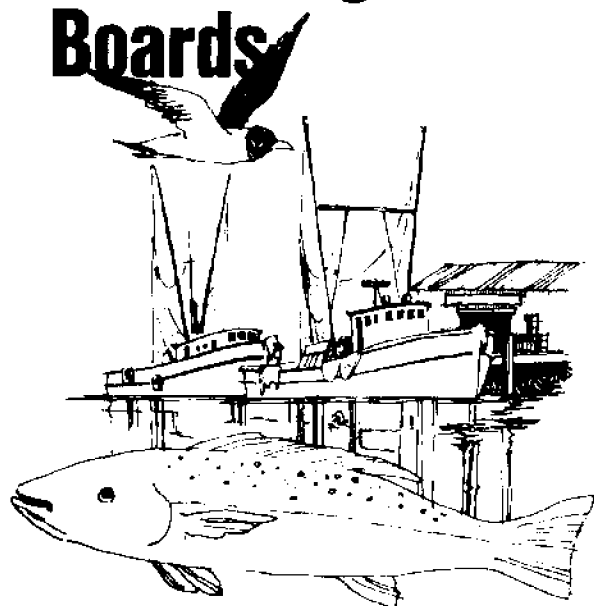
Marketing Firms

Any program designed to increase profits at the fishermen level might imply reduced profits at the handler level. Marketing firms, however, should realize lower costs through increased marketing efficiency. Programs which raise prices at the fishermen level might not affect handlers if the price increase were passed through to consumers or were the result of increased marketing efficiency.

Consumers

Marketing orders designed to limit seafood quantities at given times or to increase price above the free market equilibrium level for the fishermen's benefit alone would be hard to achieve in today's economic, social and political climate. Primarily, consumers would benefit from continuing, uniform and stable supplies of seafood over the long run. This might increase prices temporarily, but these probably would not be long-term increases. Regulations which withhold lower quality products from the market to assure uniform, higher quality products probably would have mixed effects on consumers of different income levels. Even the so-called benefits from "orderly marketing" may be questioned if the provisions used to achieve this restrict consumer choices.

Marketing Boards



Description

Marketing boards are a tool used to market agricultural, fishery and related products in many countries. They are a compulsory, horizontal marketing organization operating under government authority. All producers, handlers and/or processors are required to operate in accordance with the regulations set by the board. Influence can be exercised over individual producing and processing units, specific producing and marketing areas and the whole country. Marketing boards in this sense should not be confused with those such as the Egg Board, Potato Board and Cotton Board in the United States. The activities of these boards are similar to those under a marketing order, except they were created by separate legislative acts for specific commodities.

The major objectives of a marketing board would be quite similar to those for a marketing order. These include stabilizing producers' incomes, promoting export sales and regulating product quality, terms of sale and flow of product to market. Marketing boards also are self-help instruments rather than direct government intervention instruments. Those in existence usually cover a wider range of activities than a market order would, such as exercising exclusive control over export product marketing.

Foreign marketing boards, such as the Australian Meat Board, the Alberta (Canada) Hog Producers Marketing Board and the Australian Wheat Board, have more direct industry control than any other alternative discussed. This type of marketing program would represent a greater change from current U.S. marketing practices than the other marketing alternatives. There probably would be greater acceptance of the marketing board concept if other alternatives failed to solve marketing problems or in situations where a radically different approach was needed to improve the performance of the marketing system.

Development and Operation

Only national legislation can establish a seafood marketing board. Objectives, representation, authority and accountability mechanisms all would be delineated in this legislation. Membership probably would consist of fishermen, processor and consumer group representatives and the board would be accountable to all groups.

Federal legislation could authorize board activity in the areas of licensing, price regulation, pooling, sales regulation, market information and financial support. Licensing could include the power to set catch and marketing quotas and the power to seize products contrary to regulations. It also could allow supply control and regional product dispersion.

Minimum, maximum or fixed prices could be set at the consumer, wholesaler and fishermen level. In effect, the board would operate as a legal monopoly. It could be empowered to take title to and market pooled products. This would allow all fishermen to receive the same price after adjustments for such items as grade and type. It would be necessary to establish workable grades and standards before this could become a useful option.

Power also could be granted to regulate domestic and export sales and to impose import controls. Export regulations would have little effect since little seafood is exported, but it would serve as a powerful marketing tool in regulating the volume and quality of imports. Processors, however, would be disinclined to accept import restrictions. A market board also could serve as the industry representative at international conferences and play an important role in negotiating import quotas and tariffs.

The board could serve as the official collection and clearinghouse for market information. It also could set and collect a producers' assessment for use in seafood promotion and market development, research and any other needed activities.

Market boards with broad powers as described here do not exist in the United States. Those in other countries have been used to establish quotas through licensing, handle export trade, provide domestic and export product promotion and actually control trade through direct buying and selling.

Conditions for Success

The organization and operation of a seafood marketing board would depend on the support of fishermen, processors and consumers and on a set of mutually agreeable objectives. Success also would depend on most, or all, of the following seafood production and marketing characteristics:

1. A marketing board would be most effective for seafood products with a number of alternative uses. This may be a problem for fisheries since most products are either used for seafood or for industrial purposes and they cannot be interchanged. Some seafood products can be consumed in either fresh form or in a further processed form, representing alternative uses. These uses would need to have different demand elasticities, however, and not be close substitutes. In general, seafood products would have trouble meeting this success criterion.
2. Well-defined and concentrated production regions also are necessary. Difficulties arise if one production area has distinct advantages. Regional reaction to the board's objectives will differ if production areas are widespread and operate under different production and cost structures. This would represent a problem for many seafood items such as shrimp.

Shrimp producers in different regions of the country probably would have varying reactions to a standard set of marketing objectives.

3. It also helps if there is a difference in seasonal and regional demand. Price discrimination schemes could be used to maintain higher fishermen returns where demand is different in various markets. This is particularly true if the regional difference is between domestic and export markets. There is some seasonal demand for seafood, although many processed forms can be frozen for storage. It would be difficult to effect price discrimination between domestic and export markets unless the volume of U.S. exports were increased significantly.
4. It is easier to control activities in a relatively few market outlets. The current seafood marketing system is composed of local fish houses or unloading stations, brokers and distributors and processors. These probably are few enough in number to effect market control. One possible problem is that a great deal of "local" seafood marketing occurs.
5. As with any business operation, progressive leadership and an efficient staff are essential. These individuals must be able to do a better marketing job than that now provided by the uncontrolled, relatively unorganized competitive market system.

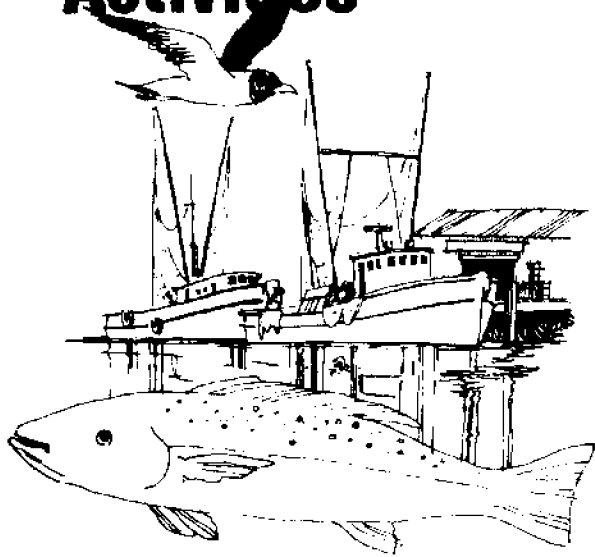
Impact

The impact on fishermen, marketing firms and consumers will depend on the scope of the legislation and the implementation decisions made by the marketing board for each available option. Generally, fishermen should experience more stable prices. Total fishermen returns should be enhanced if a two-price system were used for the fresh and frozen product markets. Individual producers, however, would have much less decision-making flexibility than they have in an unregulated market.

Seafood marketing firms also would be affected by the board's regulations and decisions. Some decisions now made by marketing firms' management would have less influence on market prices, marketing margins and control of the seafood through the marketing system.

Consumers might experience somewhat higher seafood prices if price discrimination activities were used. The impact on consumers would be less for highly processed products where the raw product comprises a smaller proportion of the total cost. Consumers should benefit through higher quality products and a more stable product supply. Consumers also would benefit if the marketing board were effective in increasing supplies and promoting the use of non-traditional species.

Extra Market Activities



There are many other ways fishermen indirectly can influence their marketing situation. They can cause laws and regulations that affect the market system to be passed and enforced. In this way, they are using government channels to improve their marketing system without the direct intervention characterized by several of the other marketing alternatives.

Fishermen also may promote and advertise products directly. Promotion and advertising often are a part of the marketing alternatives discussed previously, but a distinct organization may be set up just for the purpose. The five fisheries development foundations in the U.S. are examples of organizations which promote regional fishery interests. Commodity commissions in some states may be organized to promote seafood without getting directly involved in seafood marketing in the sense of ownership or control of the fish.

Influencing and Using Government

Laws can be enacted, regulations changed, laws enforced and government pressure applied. From 1974 to 1979 the Environmental Protection Agency proposed regulations for effluent release from seafood processing plants. One study indicated that these regulations would put many small processors out of business and thereby decrease the price competition for products in certain geographic areas. Strong lobbying efforts have delayed enactment of these regulations and may be contributing to the price competition common in the salmon fisheries.

During 1979 there was an extensive lobbying effort by fishermen and seafood marketers to change the market name of Pacific hake to Pacific whiting. The Food and Drug Administration must approve all name changes. While those with a vested interest in Pacific hake were lobbying for a name change, it was opposed by those with a vested interest in Atlantic whiting. The name change is expected to increase the marketability of Pacific hake but to compete with and decrease the marketability of Atlantic whiting. The Pacific hake interest obtained a favorable ruling in late 1979 and hopes to see this product's market expand rapidly.

Florida East Coast mackerel fishermen filed a class action suit against local buyers in the early 1970's, charging price-fixing and restraint of trade. The fishermen obtained a small financial settlement from the buyers and a cease and desist order against future price-fixing practices. A similar suit has been brought more recently in northern California. It seeks to eliminate geographical price discrimination practice of northern California buyers.

The Fisheries Conservation and Management Act of 1976 encourages the development of new fisheries. While harvest capacity has expanded, there

is concern about domestic processing capacity for several new fisheries. Non-domestic processing facilities currently are being used to the benefit of fishermen participating in these new fisheries. Because of concern over foreign control of markets and marketing, some in the industry are lobbying the Department of Commerce to enact regulations against foreign processors and to provide economic incentives to expand domestic processing capability.

The increase in public fishery management is generating new information on markets, market relationships and market opportunities. Regional fishery management councils throughout the United States are supporting seafood marketing studies. The seafood industry's use of this new public information potentially could change the market situation significantly.

Fishery Development Foundations

The creation of fishery development foundations in each major U.S. fishing area provides additional opportunities to improve seafood marketing systems. The foundations are private, non-profit corporations set up and operated by the fishing industry to tackle development problems which individuals cannot undertake alone and to which government programs cannot be applied efficiently. Although the foundations, in themselves, are not actual marketing alternatives, they may influence the development of new products or new and more efficient market channels.

Fishery development foundations combine public and private funds for market development and promotion. Mullet from the South Atlantic can be introduced to Philadelphia consumers, red snapper from the Gulf of Mexico can be introduced to Milwaukee consumers and Alaska pollock can be introduced to a nationwide seafood restaurant chain. Some foundations have also been active in finding new markets overseas. The Gulf and South Atlantic foundation has identified potential markets in several African nations.

Impacts

By their very nature, extra-market activities will have an indirect, and often hard to evaluate, impact on fishermen's marketing or market-related problems. It should be recognized, however, that before many of the marketing alternatives discussed earlier can be used, a legislative and regulatory environment must exist which permits, and even encourages, their use. Through involvement in government-influencing activities, fishermen can alter this environment so that more efficient and responsive marketing systems will develop.

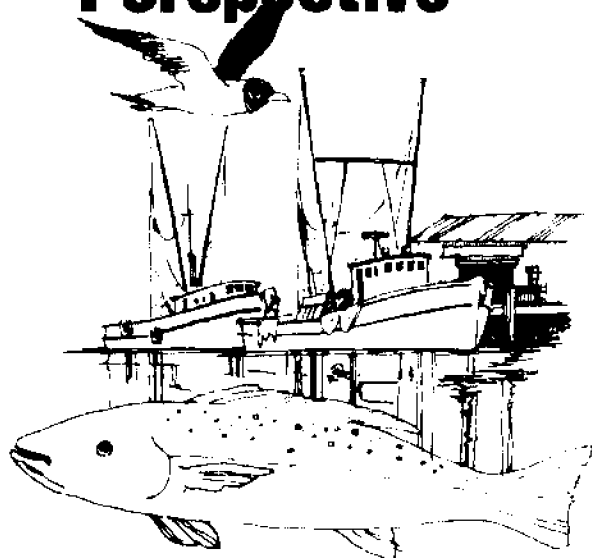
The activities of the development foundations, various trade associations and industry groups focus

attention on fishery marketing problems, and, in doing so, may assist in finding solutions to these problems. While there are many different interest groups within and among various U.S. fisheries, any improvement in the competitive environment will be passed along and ultimately benefit consumers.



The best marketing decisions are based on the most timely information.

Marketing Alternatives in Perspective



Problems in the fish and seafood product marketing system were outlined in the beginning of this publication. Alternative methods of organizing and implementing marketing functions were identified and their advantages and disadvantages were examined. These marketing alternatives vary greatly in organizational character, potential for solving specific problems and the commitment required of fishermen to make them work. In this section the alternatives are contrasted in terms of their applicability to important industry problems and the degree of involvement required of fishermen and government.

Marketing Problems

As the fishing industry in the United States evolves, grows and interfaces with a complex food marketing system which is also undergoing great changes, a number of basic problems have emerged. Fishermen must cope with these as they attempt to maintain their incomes and even their viability as an economic enterprise.

The problems, as defined earlier, fall into three categories: demand related, coordination and supply related. Ten specific problems were discussed and are summarized below.

Demand related

1. Perishability
2. Market access
3. Low level of demand

Coordination and structure

4. Market information
5. Uniform product standards
6. Competitive markets
7. Scale of marketing operations

Supply related

8. Supply variability
9. Structure of harvesting industry
10. Import volume

Impact of Alternatives

Both the problems and the alternatives are quite diverse. The potential impact of alternatives in solving the problems is illustrated in Table 4. A range of effectiveness from none to highly effective is used as a general guide only and should not be interpreted too precisely. As conditions change the level of effectiveness also might change somewhat. Nevertheless it is felt that these estimates provide a framework for fishermen to assess the potential of each alternative as a solution to their own specific marketing problems.

Demand Related Problems

Fishermen will have to integrate forward in

Table 4. Estimated Impact of Market Alternatives on Marketing Problems of Fishermen

Alternative	Marketing Problems									
	Demand			Coordination and Structure				Supply		
	Perish-ability	Market Access	Low Level of Demand	Market Infor-mation	Uniform Product Standards	Market Compe-tition	Scale of Market Operations	Supply Variability	Structure of Harvesting	Import Volume
Organized Exchanges	-	high	-	high	low	high	medium	low	medium	-
Forward Contracting	low	medium	-	-	-	low	medium	medium	low	-
Vertical Integration through Ownership	medium	high	medium	medium	low	medium	high	medium	high	-
Joint Ventures	medium	high	medium	medium	low	medium	high	medium	high	-
Group Bargaining	-	low	-	-	-	low	-	-	low	-
Marketing Orders	-	-	medium	medium	medium	-	low	medium	medium	low
Marketing Boards	-	-	medium	high	medium	-	medium	medium	high	high
Extra Market Activities	-	-	low	low	medium	-	-	-	low	medium

some manner to overcome effectively the limitations on their actions which result from the highly perishable nature of the product. By doing so, the individual can store his product or direct it to some alternative market. This reduces his dependence on local or immediate markets which may be easily overloaded with products. Except for forward contracting none of the other alternatives provide him with this type of control.

Improving fishermen's access to broader, more competitive markets may be enhanced in several ways. Vertical integration into other levels of the marketing system is one way of gaining access to markets. Buying a dockside or processing facility gives a group of fishermen a guaranteed market for their fish at that level. In doing so, however, they assume the responsibilities of marketing the product at some stage further through the system. Organized exchanges are another way to expand the number of available buyers. Auctions of various kinds bring larger numbers of buyers and sellers together, either physically or by electronic means. This greater number of buyers will provide a more competitive pricing arrangement for fishermen, particularly if they have previously had access to only one buyer in a market. For buyers it provides a broader supply of fish from which to select. It also should foster a more responsive industry where consumers' demands for different qualities in the market will be reflected in terms of price differences for fishermen. Group bargaining may increase access to buyers somewhat, but is effective only if the bargaining association controls a large share of the supply.

Several alternatives provide some opportunity to attack the problem of low level of demand for fish and seafood products. This may be done for specific branded items through vertical integration into the marketing system. Alternatively, industry organization

under trade groups, foundations or marketing orders provides a framework for collective action in developing markets and promoting seafood consumption.

Coordination Problems

Several alternatives could improve the information available on supply and demand conditions and current prices. Organized exchanges provide a centralized source of market activity which easily can be summarized and disseminated. If the exchange or auction handles a large volume of product it becomes a good source of information for the area it serves. Using computer facilities through electronic exchanges would allow quick summaries of information and nearly instant access in remote areas.

Integration of various forms may give improved information to those fishermen directly involved. It may limit, however, the amount of public information available on market transactions at specific levels in the system because some of those transactions will be considered proprietary within a firm. Collection and dissemination of market information can be organized and made mandatory through marketing orders and boards. Government and industry trade groups can have some impact on this problem as well.

Individuals can address the problem of inadequate uniformity in grades and standards for fish and seafood products in a limited way. The primary answer is concerted industry-wide action. Marketing orders, boards and industry stimulated government action are the most promising approaches. Efforts of integrated firms and organized exchanges can begin to establish widely recognized and accepted product standards.

Table 5. Level of Fishermen and Government Involvement Required to Successfully Implement Marketing Alternatives

	Type of Fisherman Commitment			Government Involvement
	Financial	Supply	Political	
Organized Exchanges	low-moderate	moderate	low	low
Forward Contracting	none	low	none	none
Vertical Integration and Joint Ventures	high	high	none	none
Group Bargaining	low	high	low	low
Marketing Orders	low	moderate	high	high
Marketing Boards	low	moderate	high	high
Extra-Market Activities	low	low	moderate	moderate

To the extent that fishermen are selling in a market with only one or a few buyers, competition may be enhanced by establishing a local or regional auction. Integration also may assist fishermen in overcoming the problems associated with non-competitive markets. The formation of marketing cooperatives or fishermen-owned handling and marketing facilities are examples. The use of forward contracts might stimulate more competitive bidding in some cases but is not likely to be very successful unless it is used to bring new buyers into the market. Group bargaining may achieve similar impacts.

Increasing the scale of marketing operations so that economies can be achieved might best be controlled by fishermen through vertical integration. Organized exchanges, forward contracting and marketing orders and boards are other alternatives that could achieve better coordination and potentially reduce marketing costs.

Supply-Related Problems

Generally, the problem of supply variability cannot be controlled directly because of the influence of natural processes. These problems may be coped with, however, through alternatives which permit processing and storage and which generally improve market coordination. Vertical integration, contracting and the use of marketing orders and boards could help deal with this problem.

The small-scale, fragmented nature of much of the fishing industry at the harvesting level contributes to many of the fishermen's marketing problems. Auction markets, vertical integration by groups of fishermen and the use of marketing orders and boards potentially could improve fishermen's control over the marketing of the product and, ultimately, could improve returns. Bargaining and other forms of collective action offer some potential as well.

Imports of fishery products is a fact of life with which the industry must continue to deal. Imports can be controlled only through direct government action. A marketing board might be granted some power in this area, but it would likely be very restricted because of concern for the well-being of consumers and distribution channels dependent on the large volume of imports for supplies.

Fishermen and Government Involvement

As the effectiveness of different marketing alternatives vary, so, too, does the amount of commitment required of fishermen and the involvement of government in assuring success. Three types of fisherman commitment are identified here: financial, supply and political (Table 5).

A high degree of financial involvement is required of fishermen when they integrate forward. This may include both capital requirements and operating funds necessary to finance inventory. Some financial commitment also may be required to set up auction markets. Little or no financial commitment is required for other alternatives.

Supply commitment is of great importance to implement many of the alternatives successfully. A fisherman must be willing to commit his landings to whatever group, association, auction or venture is organized. Without assurance of continued supplies, no marketing venture or activity can wield the power that often is necessary to achieve better conditions. This is particularly true for marketing cooperatives and bargaining associations, but also is true for most marketing alternatives which require group action.

Political commitment is necessary to enact legislation for some of the marketing alternatives. Marketing orders and boards would require specific en-



Considerable advanced planning and organization are needed to make any marketing alternative work.

Table 6. Individuals or Groups That Could Initiate Action or Implement Various Marketing Alternatives

	Individual Producer	Trade Associations	Cooperative	Corporation	Government
Organized Exchanges		X	X	X	X
Forward Contracting	X		X	X	
Vertical Integration and Joint Ventures	X	X	X	X	
Group Bargaining		X	X		
Marketing Orders		X			X
Marketing Boards		X			X
Extra Market Activities	X	X	X	X	X

abling legislation. They also would require continuing involvement, to some degree, of government through agencies which monitor and regulate activities. Through state regulatory agencies, and more recently fishery management councils, the fishing industry has had experience with such government involvement. Organized exchanges and bargaining might be encouraged through various types of legislation. As with any industry or consumer group, there is no substitute for well-organized representation of the group's view before legislative bodies and regulatory agencies.

Initiating Action and Implementing Alternatives

Having discussed alternative ways to market the fisherman's catch the next logical question is, "What do I do now?" A group effort ultimately is required to make most of the alternatives work, but the efforts can be initiated by as few as one or two persons. The first step is the same as for any undertaking — organize a small working committee to define objectives and explore the ideas more fully. Often a trade association or other existing industry group can help organize this committee's activities. This is not a requirement, however; other sources of assistance are available. The local marine advisory service office or county extension agent may be able to help in this phase. This office also will have access to specialists experienced in organizing marketing activities in the cooperative extension program of each state's Land Grant university.

A marketing organization specialist can assist the group in identifying problems, setting objectives and outlining a plan of action. It may be possible to visit facilities or businesses which are involved in activities similar to those being contemplated, such as a cooperative involved in processing or marketing. Through such visits, the committee can gain first-hand information on the feasibility of its own ideas.

Some alternatives, such as auction markets, may not be represented in the area and visits will not be possible. There are books, manuals, reports and other publications available which detail the purposes and operation of the alternatives discussed. A list of additional publications is given at the end of this report. Persons who have worked in firms that conducted similar activities are another source of information. Marketing firms in related food industries also could provide first-hand experience in organization, financing and marketing problems.

Implementation of each alternative may involve various groups (Table 6). Some form of group involvement is required to provide the necessary structure for auctions or organized exchanges. Government at the local, state or national level also could assist.

Forward contracting, in contrast, essentially needs only two parties to make it work — buyer and seller, although cooperatives or corporate businesses also could contract forward. Government need not be involved.

Vertical integration through ownership may be done by either individual fishermen or groups. Frequently the resources of a group of fishermen are required to launch an integrated marketing program successfully. Government involvement is not needed for this alternative, either. Group bargaining, as the name implies, has to be done by a group. Most often, the group is organized as a cooperative. Government involvement, although not required, could aid the bargaining process through formal enabling legislation to make the process binding.

Marketing orders and boards could only be authorized by specific government action. Fishermen could influence this through political action, and would participate in program management once adopted, but they could not undertake it by themselves, individually or as a group. Extra-market activities may be initiated by any group of fishermen as they see opportunities to influence the marketing of their product.

Alternatives requiring significant government legislation would take longest to implement. Anything as involved as a marketing board probably would take several years to pass once sufficient industry support was organized. Alternatives requiring individual action, such as vertical integration, would require the least implementation time — perhaps only a few months. It would probably take longer to organize the group necessary for bargaining associations or marketing cooperatives — perhaps a year or two under the best of circumstances. The primary factor would be finding good leadership at the fisherman level. Auction markets also might take one to several years to generate support and put together the physical facilities and agreements needed to make it work.

Conclusions

These marketing alternatives should be considered as a range of options available to fishermen. Some exist today, both in the fishing industry and in other sectors of the food economy. Others represent major departures from present business methods. Fishermen in a particular region or fishery who are not experiencing any marketing problems need no changes; if problems are encountered, however,

these alternatives may provide a place to begin their examination and development of solutions.

Various forms of vertical integration seem appropriate for a number of problems. This does not come without cost, however, as a high degree of financial and market commitment is required to make such an alternative successful. Organized exchanges also might solve a number of marketing problems. Other alternatives address a narrower range of problems, but, if used appropriately, could have a great impact in selected areas. Vertical integration and contracting primarily would benefit only those fishermen who initiate and control the activity. The other alternatives are broader in nature, usually with industry-wide implications, and need general support.

Marketing, as with all other business activities, requires the careful attention of the fisherman. He should examine the alternatives if he is not satisfied with the current market available to him. The alternatives presented here represent a starting point. Only fishermen, individually or through their organizations, can select the alternatives or approaches which best meet their needs. A careful study is needed to examine costs and benefits before any major commitment should be made.

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Bargaining Associations, Marketing Orders and Marketing Boards

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