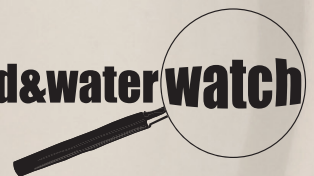


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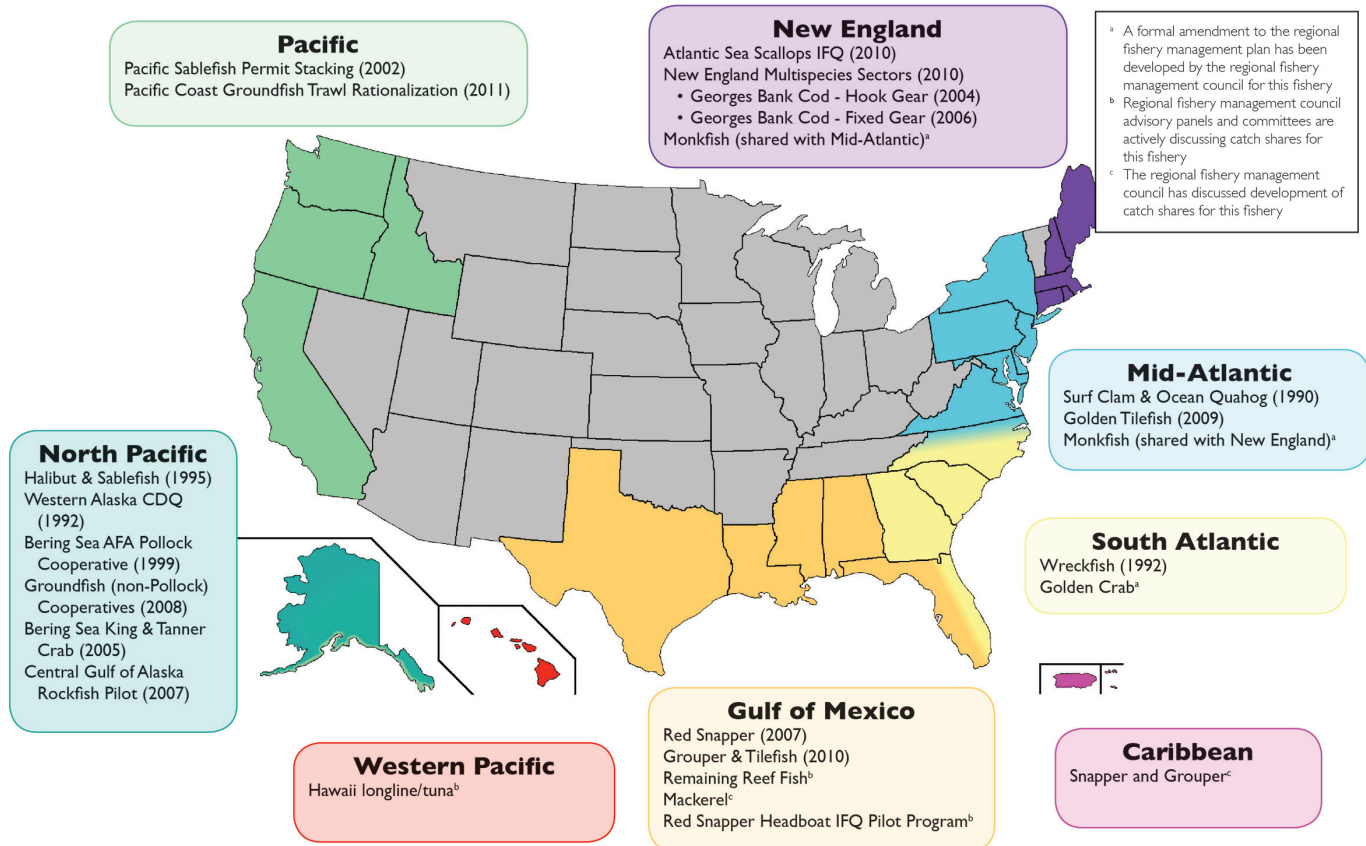
**The Privatization
of U.S. Fisheries
Through Catch
Share Programs**



food&waterwatch



Existing and Developing Catch Share Programs in the United States



About Food & Water Watch

Food & Water Watch works to ensure the food, water and fish we consume is safe, accessible and sustainable. So we can all enjoy and trust in what we eat and drink, we help people take charge of where their food comes from, keep clean, affordable, public tap water flowing freely to our homes, protect the environmental quality of oceans, force government to do its job protecting citizens, and educate about the importance of keeping shared resources under public control.

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Executive Summary

When people think of fishing, they probably imagine an independent sea captain and his crew braving the elements in a small vessel to bring a fresh catch to shore and to our plates. But the current focus of U.S. policy for managing our fisheries, called catch shares, is destroying the way of life of our nation's fishermen and coastal communities. This time-honored trade is being replaced by a privatized system that often leaves the future of our nation's fish, one of our most precious natural resources, in the hands of a small number of larger operations, whose primary goal is often immediate profit rather than sustainable use and long-term conservation.

The United States lost most of its family farms to the large industrialized agriculture model. Catch shares create similar conditions on our seas by transferring the wealth of our fish populations from the public trust into private hands, by allocating a percentage quota of the total amount of fish that can be caught in a year and allowing these quota to be leased, bought and sold. When catch shares are given to fishermen, those who receive the largest initial distribution of shares — or have the most capital to buy and lease shares — often gain control over the entire fishery. Smaller-scale traditional fishermen are pushed out of the fishery while larger companies, which often use fishing practices that stress ocean ecosystems, take over.

Proponents of catch shares claim they are the best solution to profitably, safely and sustainably manage our fisheries. In this report, Food & Water Watch examines these claims and finds them all wanting.

Catch shares cause economic devastation.

Catch shares only increase profits for some fishermen by cutting hundreds of others out of the fishery entirely. Widespread job loss and reduced wages drag coastal communities that are already struggling in this economy into dire economic situations. Meanwhile, a privileged few are able to profit from exclusive access to a public resource.

Catch shares fail to sustain the health of our fisheries.

Catch shares are only a way to distribute fish among fishermen and have no built-in sustainability measures — overfishing is controlled separately by setting limits on the total number of fish that can be caught. In fact, catch shares inherently contain incentives to use more damaging gear, discard unwanted fish and dismiss adaptive ecosystem-based fishing strategies.

Catch shares fail to achieve legal standards for fishery management.

The federal law governing our nation's fisheries, the Magnuson-Stevens Fishery Management Act, specifies that fishery management must support the long-term economic health of fishing communities, but catch shares are responsible around the world for destroying the economic health of coastal ports. Further, an international court found that catch shares violated human rights by creating a privileged class of fishermen in a privatized industry.

Catch shares aren't fair.

Our nation and our oceans deserve better than a system that results in an unfair giveaway of public resources to private entities. Fishermen, rather than being cut out of the fishery, should be a key part of the management process. Smart fishery management can be fair and equitable, maintain public control of the resource, minimize damage to the environment, and promote a better life for our nation's fishermen and coastal and fishing communities, and a better product for consumers.



Privatizing U.S. Fisheries

The Wrong Choice

The United States' tradition of fishing is in danger. One by one, our nation's regional fisheries are being forced under a management system that pushes smaller-scale fishermen out of their jobs, leaves crew members scrambling for pay and turns fishing communities into ghost towns. These systems are called catch shares, individual fishing quotas, sector management or catch-and-trade programs. They privatize our oceans, often leaving the future of one of our nation's most precious natural resources — our fish — in the hands of a small number of larger fishing firms, whose primary goal is often immediate profit rather than sustainable use and long-term conservation.

Privatization by Any Other Name

There are many different types of catch share programs, particularly in the United States, where each program is designed specifically for an individual fish or group of fish. In this report, we generally call these "catch shares," but they may also be called: limited access privilege programs (LAPPs), individual fishing quotas (IFQs), individual vessel quotas (IVQs), individual transferable quotas (ITQs), quota management systems (QMS), sectors or community development quotas (CDQ) (among many other names, each with their own unique aspects — see the appendix for details). These programs could be designed to promote sustainability, economic opportunity and fairness, but the vast majority of catch share regimes privatize the fishing industry instead, leading to numerous socio-economic and environmental problems.

Catch share programs have been pitched as a way to end overfishing, motivate resource stewardship, and increase productivity, profits and long-term stability for fishermen. Yet in practice, these programs fail on all these counts. Worldwide, catch share programs that privatize fisheries prove unsuccessful and even devastating for fishing communities, the marine environment and consumers.

Our agricultural system has long operated under extreme economic pressure to "get big or get out." Numerous smaller farms rapidly consolidated into fewer large factory farms over the course of the last several decades, resulting in the near-death of the family farm and the loss of food quality, food safety and consumer choice. Unfortunately, the National Marine Fisheries Service (NMFS), the federal government body responsible for the management and conservation of our ocean fish populations, is heavily promoting catch share programs throughout the United States. It seems to be only a matter of time before our fisheries follow a similar path as agriculture.

Catch Share Programs in the United States

Since an eight-year moratorium on their development was lifted in 2004,¹ catch shares have spread rapidly throughout the United States. In the president's federal budget for fiscal year 2011, NMFS expressed a goal of having 20 catch share programs by 2016.² As shown in our map on existing U.S. catch share programs (see inside cover),³ catch shares already exist in many areas and are being developed in other regions.

Recent studies estimate that between 28 to 63 percent of the fish stocks in the world are depleted.⁴ Nationally, a long recession and slow recovery has left the people of the United States struggling to make ends meet. Our government's policy of privatizing our nation's fisheries abdicates their responsibility for the stewardship of our resources, while causing further job losses in our coastal and fishing communities. This is the wrong choice for our fish, fishermen and future.

The Design and Downfall of Privatized Catch Shares

Catch share programs define the amount of fish that certain fishermen are allowed to catch. Scientists and managers first set the total allowable catch (TAC) of a fishery, which is the amount of fish that all companies and individuals combined are allowed to catch each year. The fishery managers then determine the size of a catch share, generally a percentage of the TAC designated for one individual. For example, one fisherman might receive 2 percent of a 1 million pound TAC of red snapper. This means that the fisherman can catch 20,000 pounds of red snapper for the year. The percentage of TAC a person receives is referred to as their "share" or "quota."

Catch shares can be distributed in a number of ways, but the most common method in the United States involves giving away catch shares to companies and individuals based on their catch history (how much fish they caught in the past during a certain period of time). Once the catch shares are given away, the owners are allowed to lease or sell their quotas in a private market system.

While this may sound like a fair approach, the reality is that smaller fishermen who fish more slowly and catch less are pushed out when the amount of annual catch to qualify for shares is set high (see graphic: "How catch shares cause job losses"). Many captains have to buy or lease quota to go fishing and this added expense equates to less money available to pay crew members. Fishermen who leave the fishery are left saddled with boats they can't sell, since new entrants to the fishery are blocked by the expensive burden of having to buy or lease quota to fish — which can be tens or even hundreds of thousands of dollars.⁵ Ultimately, the industry

is skewed toward industrial fishing vessels employing fewer people and using fishing methods that can be ecologically damaging.

Catch shares are often treated as permanent property rights even though U.S. federal law governing fisheries management expressly states they are revocable permits and cannot be construed as rights.⁶ They have been bought and sold, inherited and taxed as inheritance, used as collateral, and fought over in divorce court.⁷ However, it is unclear how well catch share quotas can be revoked or modified once they are issued.⁸ In other words, the United States is rushing down a path of fisheries management from which it cannot easily return.

The fundamental problem with this system is that the government gives catch share owners their transferable shares for free, and essentially in perpetuity, creating a system that keeps the right to fish in private hands. Some argue that privatization is necessary to avoid the "tragedy of the commons."⁹ The tragedy of the commons is the idea that when multiple individuals use a common resource for their personal benefit, the resource is likely to be depleted by people trying to get the biggest share as quickly as possible before others do so. This happens even though destruction of the resource is against everyone's collective long-term interest in managing the resource well and using it sustainably into the future. But the United States manages many public resources without resorting to privatization — our national forests, oil and mineral deposits, grazing lands and wireless airwaves are considered public resources. The government holds these resources in trust and manages them for the use and benefit of all people in the United States. The government sells or auctions access to them to individuals for their use or extraction.

As with other public resources, privatization is not necessary for effective fishery management. Fish in U.S. waters belong to the public,¹⁰ to be shared by all, for the maximum benefit of all, not just a handful of people or companies.

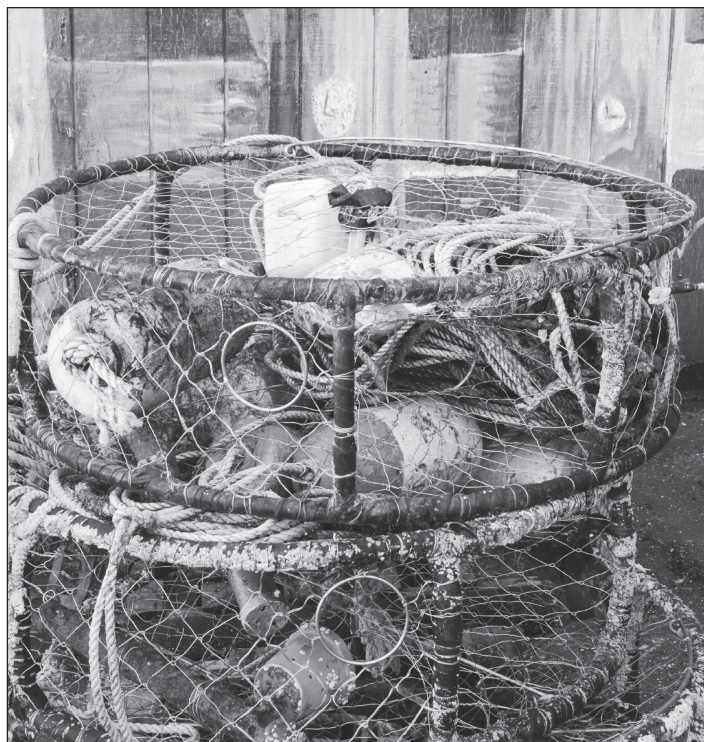
Ultimately, the industry is skewed toward industrial fishing vessels employing fewer people and using fishing methods that can be ecologically damaging.

Economic Devastation

Catch share programs are based on the idea of maximizing the economic efficiency of the fishery. Unfortunately, this “optimization” or “rationalization” comes at the cost of excluding large numbers of people from the system entirely. As one researcher summarized in 2006, catch share programs “can amount to an unjustified, and highly unpopular, transfer of wealth from the public to specially favored individuals. In practice, many fishermen or entrepreneurs have become inordinately wealthy following the inception of [these] programs,”¹⁴ while others have been forced into poverty.

Distribution of Shares

While there are several different ways to determine who gets the initial shares in a new catch share program, the most common method used in the United States is to select a few years of historic catch data from the fishery to determine each fisherman’s proportional share. This initial allocation of shares gives a huge windfall to a small group of people and businesses. Typically, no attempt is made to collect fees



More Than a Decade of Concerns

In a review for Congress on catch share programs in 1999, the National Research Council (NRC) highlighted eight major concerns with catch share programs:¹¹

- The fairness of initial allocations
- The effects of catch shares on processors
- Increased costs for new fishermen to gain entry
- Consolidations of quota shares (and thus economic power)
- The effects of leasing
- Confusion about the nature of the privilege involved
- Elimination of vessels and reductions in crew
- The equity of gifting a public trust resource¹²

Since the moratorium on catch share programs was lifted in 2004, nine new catch share programs have been implemented in the United States (there are 15 total catch share programs as of early 2011) and more are in development.¹³ These programs are plagued by many of the same problems highlighted by the NRC more than 10 years ago, yet the National Oceanic and Atmospheric Administration (NOAA) continues to promote catch share programs as a preferred management option for our nation’s fisheries.

or compensation for use of the public resource. Those who receive the largest initial distribution of shares — or have the most capital to buy and lease shares — often gain control over an entire fishery, pushing smaller fishermen out of fishing and even into bankruptcy.¹⁵

There have also been cases where new fishing firms have deliberately entered a fishery prior to the implementation of catch shares in order to establish a catch history and profit from the initial allocation of shares.²³ Catch shares are touted as a way to end the race to fish, but when fisheries are controlled with a TAC and no other restrictions, fishermen compete in short seasons to catch fish quickly. This speculative fishing exacerbates the race in pre-catch share years.²⁴

Once quotas are distributed, the fishery moves rapidly towards consolidation. In 2010, less than five months after catch shares were implemented in the groundfish fleet in New England, 55 out of the initial 500 boats in the fishery controlled 61 percent of the revenue.²⁵ In another example, the ocean quahog fishery in the mid-Atlantic became so consolidated that one firm controlled 35 percent of the available quota two years after the program began.²⁶ Internationally, in New Zealand’s catch share fisheries, “the majority of quota was purchased and held by a small number of large-vertically integrated companies.”²⁷ One company, Sanford, purchased about half its total quota, while another, Talleys, bought 99 percent of its quota. These large purchases resulted in many small boat operators leaving the fishery.²⁸

Many quota holders don’t even fish themselves. Instead they become “armchair fishermen” or “fishery landlords” by

Windfall Wealth and the Fish Stock Market

The initial distribution of catch shares gifts a select few with a windfall of wealth, as it transfers the future value of the public fishery into private ownership.¹⁶ Immediately upon receipt, these privileged few can sell their quota and gain an instant profit¹⁷ or they can use the expected value as collateral to get bank loans.¹⁸ Quota owners can use these loans to buy additional quota¹⁹ or to invest in other industries, furthering their own personal profit.²⁰ Many choose to hold on to their quota, lease it to other fishermen and accrue long-term wealth without actually fishing.²¹ Essentially, catch shares turn a fishery into a stock market, where quota shares become intangible assets with higher market values than the vessels and equipment needed to fish, or even the fish themselves.²²

leasing their quota for exorbitantly high prices. The Canadian halibut fishery switched to a privatized catch share system in 1991, and by 2006, 79 percent of the quota was leased instead of fished by quota owners themselves.²⁹ A huge financial burden was placed on the fishermen who had to pay rent to bring in their catch. One study found that, “of the 182 active halibut fishing vessels in 2006, 37 vessels leased 90 percent or more of the halibut quota they fished, 67 vessels leased 70 percent or more of the halibut quota they fished, and 91 vessels (half of the active fleet) leased 50 percent or more” of their quota.³⁰ Quota leasing has become the single largest operating cost for these fishermen, pushing them to the margins of profitability,³¹ which could drive more fishermen into bankruptcy.³²

Job Losses

As a result of this subsidized consolidation, many fisheries have lost well over half of their fishing fleets. In Alaska’s Bristol Bay red king crab fishery (part of the Bering Sea and Aleutian Islands crab rationalization program), only 89 out of 251 boats remained the year after catch shares were implemented.³³ In early 2010, New England implemented catch shares in the groundfish fishery through a “sector” program. Members of the community warned, “50-75 percent of the fleet and thousands of jobs will be lost in a relatively short period of time.”³⁴ Five months after the program was implemented, 253 of the 500 boats in the fishery were sitting at the dock, unable to fish without quota.³⁵ Those boats might stay there, since small fishermen forced out of the system could end up with boats that have no buyers, as the boats have no value without quota.³⁶

The same problems are occurring in other parts of the world that employ privatized catch share systems. The southern bluefin tuna fishery in Australia had approximately 70 percent fewer boats within the first two years of the initiation

of the catch share system.³⁷ Between 1986 and 1998, on average, the number of quota holders in New Zealand’s in-shore fisheries (which were traditionally dominated by small boats) dropped from 95 owners to 67 owners.³⁸ Despite a 15 percent increase in the TAC of the New Zealand fishing fleet, there has been a 26 percent reduction in the number of quota owners.³⁹ Hardest hit were the small 6 to 9 meter length boats, while mid-sized vessels stayed stable and large vessels increased in number.⁴⁰

Quota leasing also prevents new fishermen from entering a fishery. One study estimated that it can cost between \$250,00 and \$500,000 for a new entrant to acquire enough quota for a single fishing trip in Alaska’s halibut fishery.⁴⁹

How Catch Shares Cause Job Losses

1. In this hypothetical fishery, boats of three sizes (small, medium and large) catch the *imaginarifish*. The regional fishery management council maintains stocks through regulatory limits on total allowable catch (TAC), but there are problems with fishermen racing to catch as many *imaginarifish* as possible before the TAC is reached.

2. The regional fishery management council suggests implementing a catch share program for *imaginarifish*. Because catch shares are based on catch histories, more boats enter the fishery and those already fishing fish harder to try to raise their catch in the hopes of getting more quota. Aggressive overfishing depletes stock, and other fish are killed accidentally when the *imaginarifish* are caught, causing depletion of those fish populations as well.

3. A catch share program is implemented. The program automatically excludes a large number of the smallest boats because their historical catch amounts do not qualify them for shares under the new rules. Catch shares are distributed mostly among the medium and large boats.

4. In the first year under the catch share program, fishermen not granted enough shares to be profitable, and other fishermen choosing to make a windfall profit, sell or lease their quota shares. Catch shares begin to consolidate within the larger boats that have the capital to purchase shares from the remaining fishermen. There are now far fewer crew jobs available, and local economies suffer as workers have less money to spend on various goods and entertainment. Fish populations continue to decline at the same rate, but a much smaller number of much larger boats are catching them. These boats use more industrialized catch methods, which can harm ocean habitat and cause higher rates of bycatch — the accidental catch of marine wildlife.

Fleet Reduction Means Job Losses

“Fleet reduction” — meaning fishermen being cut out of fishing — is often highlighted as a success of catch share programs.⁴¹ But every time a boat stops fishing, an estimated three to six jobs are lost,⁴² resulting in struggling coastal and fishing communities.

Catch share program	Boats in fishery prior to catch shares	Boats in fishery after catch shares	Boats lost
Alaska Halibut	3,450 boats in 1994	1,156 boats in 2008	66 percent in 14 years
Alaska Sablefish	1,404 boats in 1994	362 boats in 2008	74 percent in 14 years ⁴³
Bering Sea and Aleutian Islands Pollock	100 catcher and 30 catcher-processor in 1998	90 catcher and 21 catcher-processor in 2005	10 percent catcher and 30 percent catcher-processor in 7 years ⁴⁴
Bering Sea and Aleutian Islands Red King Crab	251 boats in 2004	74 boats in 2007-2008	71 percent in 3-4 years
Bering Sea and Aleutian Islands Snow Crab	189 boats in 2004	78 boats in 2007-2008	59 percent in 3-4 years
Pacific Sablefish	328 boats in 2000	87 boats in 2008	73 percent in 8 years ⁴⁵
Gulf of Mexico Red Snapper	546 permits in 2007	466 permits in 2008	15 percent in 1 year
Wreckfish	91 boats in 1990	Less than 5 boats in 2009	95 percent in 19 years ⁴⁶
Surf Clam	128 boats in 1990	50 boats in 2005	61 percent in 15 years ⁴⁷
Ocean Quahog	92 permits in 1991	47 permits in 2005	49 percent in 14 years ⁴⁸

Fishermen who already have quota can use their existing quota as leverage for loans, but fishermen just starting out may have to use personal assets, such as their homes, for the required downpayment (between a quarter and half of the loan, or \$62,500 to \$250,000) before they can even catch any fish.⁵⁰ Purchasing the quota outright is out of reach for most, since widespread leasing drives up the price of quota.⁵¹

Despite widespread academic agreement that catch share programs create job loss in communities, NOAA Administrator Jane Lubchenco recently announced that catch shares are “merely a tool” and “not the cause” of lost fishing jobs.⁵²

Wage Losses for Crew Members and Captains

The precise impacts of catch shares on crew members are relatively unknown, but the research that has been done belies the claim that crews have safer, better jobs with higher wages.⁵³ Traditionally, fishing crews were given a percentage of the total catch value, most of which was caught in a short fishing season. Crews in fisheries under catch shares are now spending months at sea instead of weeks, but are not making more money.

Vessel owners are shifting the costs of leasing additional quota onto crews by taking a large percentage of the total catch value before calculating wages. Crew members in the Canadian halibut fishery received 10 to 20 percent of the catch value before catch shares and now receive only 1 to 5 percent.⁵⁴ Even the fishermen who own their quota have begun to pay their crews these same low wages, because it is more profitable for quota owners to lease their quota than to fish it themselves while paying their crews the wages they used to receive.⁵⁵ So, in the Canadian halibut fishery, although the overall value of the fishery has increased by 25 percent over 17 years, the crews’ share of that value has dropped by 73 percent.⁵⁶ In the Bristol Bay red king crab and Bering Sea snow crab fisheries, some crew members report that pay has dropped from 5 to 6 percent of catch value to less than 1 percent,⁵⁷ while an estimated 1,214 crew members lost their jobs entirely after catch share implementation in those fisheries.⁵⁸

Crew Life After Catch Shares in the Bering Sea Red King Crab Fishery

In a recent report, former and current crew members and skippers in the Bering Sea red king crab fishery described the changes for crews after the implementation of catch share “rationalization.”⁵⁹ The crab fishery lost 177 vessels in the four years following rationalization, causing significant unemployment.⁶⁰ In interviews, the fishermen described how crews made less money after rationalization, since owners compensated for the cost of leasing quota by taking 70 to 80 percent of the gross value of the crab catch before calculating crew pay.⁶¹ Many explained that crews now work long hours for many more months.⁶² One estimated that captain shares have dropped from around 14 percent of catch value to 7 percent, while crew shares have dropped from 6 to 3 percent.⁶³ These fishermen generally do not consider the fishery to be any safer, since owners only hire a minimum number of crew members and have deadlines to meet for processors.⁶⁴ Some of them mourn the loss of their way of life and some of the small fishing communities of Alaska.⁶⁵

Some crew members’ reactions to catch shares:

“Last season I worked more months, caught as much crab as I ever caught in my life but it was not the biggest paycheck I’ve ever gotten. You work longer and get paid less.”⁶⁶

“They say it was for security purposes but people still die every year. The only difference is that there are fewer boats now, so there are less people getting hurt. But they’re doing the same work.”⁶⁷

“On some boats, people are taking home more, on other boats less. BUT the big change is that if you look at this on a per hour basis, crew are making significantly less. Now they are working 10 months for what they might have made in 2 months. Much more time away from family on top of this per hour aspect.”⁶⁸

“There are less boats and crew has no opportunity. You have to own your own boat to advance.”⁶⁹

“People get into fishing to try to make a good living and they take the risks, but the people making the money are the people who don’t take any risks. Owners can lease out the quotas and sit on their butts when the guys are out there.”⁷⁰

“It wasn’t just a job, it was a way of life and they took that from me too.”⁷¹

Community Hardship

The economic hardship and job loss among fishermen due to catch share programs have widespread impacts. Related industries like processors, baiters and boat repairers also suffer, along with the ports and communities reliant on fishing. As unemployment spreads, there is less to spend at grocery stores, restaurants and other key community businesses, which can eventually lead to a resident exodus in search of jobs and opportunity.⁷² And generally speaking, unemployment is linked to higher risk for spousal abuse,⁷³ child abuse and neglect,⁷⁴ and increased suicide and divorce rates.

The consolidation of fishing in a region can have profound economic and social effects. A study of the Nova Scotia groundfish catch share program found that transferability of shares resulted in striking regional imbalances in consolidation, as some areas acquired quota at the expense of other towns and ports.⁷⁵ The increasing fortunes of those able to take advantage of catch shares in these communities have exacerbated disparities of wealth and status and put a strain on the values of hard work and equity that held the communities together.⁷⁶ Regional shifts in quota have also left communities in Iceland and Alaska struggling to survive the loss of their fishing tradition.⁷⁷

Processors can also be hurt by quota systems, as some processors gain control of the quota and others go out of business. In the Alaska halibut and sablefish fishery, catch shares reduced the number of halibut processors from 104 to 82 firms, only 31 of which existed before catch shares.⁷⁸ Of the 51 new processing firms, four of them accounted for nearly a fourth of the total market share.⁷⁹ The halibut processors that survived the implementation of catch shares lost upwards of 56 percent of their prior wealth due to changes in the price of fish off the boat, wholesale prices, and exclusive deals between new processors and the now-consolidated fishermen.⁸⁰

In some catch share programs, processors are also granted quotas. In Alaska’s Bering Sea king crab fishery, a handful of major processors ended up with exclusive buying rights to a percentage of most crab deliveries. As a result, some processors were guaranteed an astounding 90 percent of crab deliveries, leaving fishermen with only 10 percent of the product to deliver where they wanted.⁸¹ Meanwhile, the smaller processors and ports that cannot arrange deals with quota owners are often forced to close, further hurting communities linked to small-boat fishing.⁸²

Quotas can also change the social dynamics of a community. Quota owners can choose to avoid the discomfort of dealing directly with struggling fishermen by leasing through processors instead, thereby further consolidating the fishery through vertical integration.⁸³ These processors can then schedule guaranteed deliveries with leasing fishermen, controlling both supply and demand (and therefore the prices) for fresh fish.⁸⁴

Destroying Communities for Private Profit

Fishing communities are a vibrant part of the cultural and economic fabric of the United States. Fishing provides more than just local jobs and the ability to work for oneself or with friends, neighbors and family members; it serves as the basis for community character and enforces a traditional form of social equity — those that work hard gain benefits from their labor. Fishermen can maintain control over the quality and quantity of their product, allowing them to determine how best to maximize their personal profit, use natural resources wisely to provide benefits now and for the future, and ensure safe and local seafood for consumers.

This culture is being lost in the rush to implement catch shares across the United States, as catch share programs can force fishermen to be little more than a controlled labor force working for private firms. In 2009, the Milken Institute hosted a panel to discuss catch shares during a conference that brought together CEOs, entrepreneurs, venture capitalists and government officials.⁸⁵ Staff members from the Environmental Defense Fund (EDF), one of the key proponents of catch shares, highlighted the private investment opportunities of catch share programs. In the pitch to bring in investors, David Festa, vice president of the West Coast for EDF, described fishermen as “unskilled,” “unprofessional” and “itinerant labor that bounces around from job to job” with “high drug use.”⁸⁶ He went on to liken fisheries to ill-performing factories that simply need outside investment to retrain workers so that owners can turn a profit, and suggested that

the value of the fishery tends to increase by a factor of four once the fisheries are essentially in private hands.⁸⁷ He also highlighted the favorable political climate in the federal agencies and asked for “help in pushing forward these changes both in terms of the political process but also in terms of bringing capital to the table to help grease the skids.”⁸⁸

Another EDF consultant at the meeting, Larry Band, expressed disregard for the lives and livelihoods of independent fishermen when he complained that “unfortunately, as you deal with the reality of getting catch shares implemented, it’s a very democratic process with the voices of people on the water an important part of whether or not catch shares move forward.”⁸⁹ He further suggested fleet buy-backs as an opportunity to target smaller fishermen who turn less profit, “giving them an honorable exit from the industry.”⁹⁰ Mr. Band likened catch shares to financial stocks and suggested returns for investors as high as 10 to 20 times the initial value of the shares.⁹¹

Among all this discussion of outside capital investment, profit returns, trading and brokerage options, and catch shares as financial securities, there seems to be disregard and even disdain for the culture of traditional smaller-scale U.S. fishermen. The long-standing dignity and independence that fishing communities represent as providers of seafood to U.S. consumers are being lost in the rush to make our fisheries profitable for businessmen, not fishermen.

Safety for Fishermen

Catch shares are touted as a sure method for increasing safety for fishermen,⁹² but the data is unclear that such programs reduce accidents and deaths at sea.⁹³ The anticipated safety benefit of catch shares systems is that fishermen no longer have to race for fish. However, a survey of fishermen safety in six countries found that some fisheries managed with catch shares, especially those with quota aggregation and quota leasing, tended to continue to have major vessel accidents and fishing fatalities.⁹⁴ Overall, the data is mixed. Some fisheries have experienced reductions in search and rescue missions (for example, Alaska’s halibut and sablefish fishery saw a 63 percent reduction in missions after catch shares were implemented),⁹⁵ while others have seen no improvement (fisheries in Iceland, New Zealand and even the United States maintained high accident rates).⁹⁶



Fishery Health

Declining fishery health is a global problem. One study estimated 63 percent of assessed fish stocks worldwide require lower exploitation rates so that populations can rebuild.⁹⁷ Some scholars claim catch share programs are the solution to wide-scale fisheries collapse.⁹⁸ Their essential argument is that ownership of a resource implies stewardship of that resource. By giving individuals and firms private, assured rights to a formerly public resource, these “owners” supposedly become invested in the long-term health of the fishery and modify their behavior to promote sustainability.

This assertion has been countered in research and in history. Resource stewardship is not inherently linked to ownership. For instance, unsustainable farming practices on private lands in the 1930s were a major cause of the Dust Bowl tragedy.⁹⁹ Studies have shown that it is theoretically possible in a catch share system that fishing a stock to extinction could bring a quota holder the most profit — another reason why ultimate management powers should remain in the public sector.¹⁰⁰ Fundamentally, quota holders are individuals with no control over the fish stocks, marine environment or the behavior of others (including other quota holders, predators and exploitive marine industries like mining)¹⁰¹ and cannot be relied on to recover stocks through individual actions. This is particularly true since, while quotas grant someone a private market asset, quota holders are still

Quota holders compete against each other to get the best fish from the ocean, which can lead them to adopt practices that damage the broader ecosystem.

competing against each other to get the best fish from the ocean.¹⁰² This can lead them to adopt practices that damage the fish stocks and the broader ecosystem.

In fact, research focusing on the implementation of the New England groundfish sectors program suggests that the catch shares program has replaced the traditional fishing community focus on diverse and adaptive fishing strategies — strategies that consider habitat, migratory patterns and fishing gear.¹⁰³ Rather than increasing fishermen’s personal investment in the fishery and encouraging cooperation to spur long-term sustainable management, the sector program has motivated fishermen to attain short-term goals, such as maximizing their quota usage and raising the value of their quota share.¹⁰⁴

The National Research Council concluded in 1999 that “much of the political support for [catch shares] is similarly driven by faith in the assumption that privatization will foster ecological sensibility.”¹⁰⁵ The NRC felt that catch shares may promote conservation by keeping catch below the TAC, but only with proper monitoring, enforcement and penalties for violators.¹⁰⁶ As highlighted in their opinion, the key management strategy to ensure conservation is the existence of a biologically based TAC, with catch shares being one way, but not the only way, to implement this conservation strategy.¹⁰⁷

Essentially, two goals are being conflated: the goal to return stocks to sustainable levels and the goal to create economic efficiency by reducing the number of fishermen.¹⁰⁸

Most catch share programs, however, have been put into place in fisheries where overfishing had already been reduced or eliminated through other management scenarios, most commonly through catch limits such as TACs.¹⁰⁹ By distributing quota based on historical catch amounts, catch share programs may actually be rewarding those that fish the hardest and fastest using gear associated with more environmental problems, but that boost catch quantity.¹¹⁰ For example, industrial-scale “factory fish” boats frequently use equipment that can catch large amounts of fish quickly, but can also damage the ocean floor and kill other wildlife unnecessarily in the process.¹¹¹



Stock Assessments

There is much debate as to whether fish stocks recover or decline as a consequence of catch shares. Recent studies disagree on the issue. One study that focused on the landings data of over 11,000 fisheries concluded that, on average, the 121 fisheries managed by catch shares were less prone to collapse.¹¹² However, this study has been criticized for failing to differentiate between landings increases due to catch shares management and landings increases due to the enforcement of a sustainable catch limit.¹¹³ An opposing study painted a much more complicated picture by looking at fish numbers, use of habitat-damaging gear and commercial landings data in 15 North American catch share programs. The author concluded that results varied widely between programs and that the implementation of catch shares in these 15 separate regional examples did not ensure ecological sustainability.¹¹⁴

Fish populations under some of the most mature catch share systems in the world are still overfished. In New Zealand, the percentage of assessed stocks below target levels increased from 15 percent to more than 30 percent between 2006 and 2010. In 2010, almost a quarter of New Zealand fish stocks experienced overfishing, 6 percent were collapsed and 13 percent were depleted.¹¹⁵ In another example, Norway's cod stocks dropped to the lowest quota ever available in 2006 after years of catch share management.¹¹⁶ Meanwhile, U.S. catch share programs have shown little evidence that quotas are increasing fish stocks. For instance, the Alaskan sablefish population, managed under catch shares since 1995, tended to have lower TACs after this catch share program was implemented, as seen in Figure 1.¹¹⁷ And recent TACs in Iceland's fisheries have almost uniformly been reduced due to declining populations, as shown in Figure 2.¹¹⁸

Figure 1: Catch Shares Have Failed to Increase TACs in the Alaskan Sablefish Fishery¹¹⁹

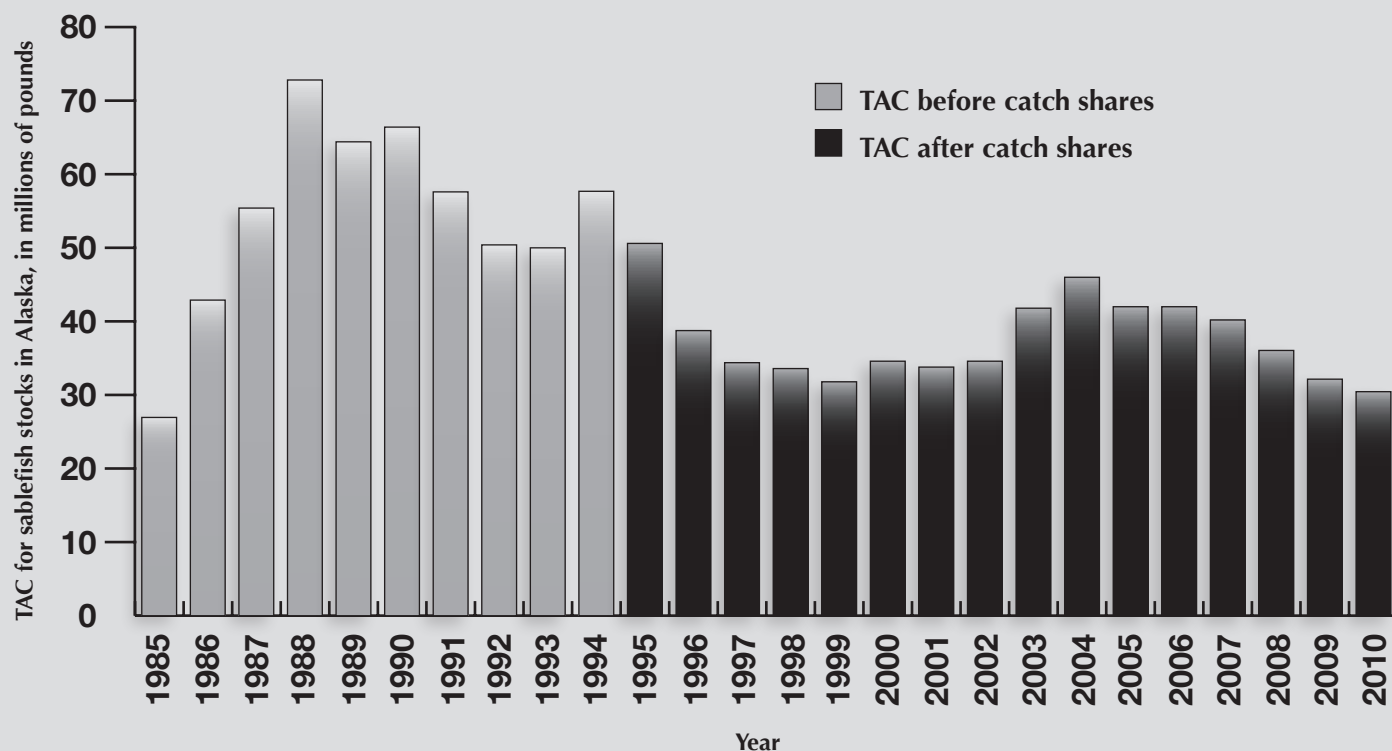


Figure 2: The State of Fish Stocks* in Iceland¹²⁰

Species	Landings in 2009 (in pounds)	Recommended TAC for 2010/2011 (in pounds)	Percent change
Cod	401,240,000	352,740,000	12 percent decrease
Haddock	180,780,000	99,210,000	45 percent decrease
Pollock (Saithe)	134,480,000	88,180,000	34 percent decrease
Golden redfish	85,980,000	66,140,000	23 percent decrease
Icelandic slope redfish	41,890,000	22,050,000	47 percent decrease
Deep pelagic redfish	114,640,000	44,090,000	62 percent decrease
Greenland halibut	59,520,000	11,020,000	81 percent decrease
Plaice	13,890,000	14,330,000	3 percent increase
Wolffish (Atlantic catfish)	33,950,000	18,740,000	45 percent decrease
Ling	24,250,000	16,530,000	32 percent decrease
Tusk	18,300,000	13,230,000	28 percent decrease
Great silver smelt	23,810,000	17,640,000	26 percent decrease

*Only species with 2009 landings greater than 10,000,000 pounds are included, with the exception of the lumpsucker, summer spawn herring, Norwegian spring spawning herring, blue whiting, mackerel and pearlsides, which did not have recommended TACs for 2010/2011 at time of publication and are therefore excluded from this table.

Discarding

Stocks can continue to decline under catch shares due to a number of problems inherent in the system design. One of these flaws pushes fishermen to discard some of their catch. By restricting fishermen to the amount of fish in their quota and making it too expensive to acquire additional quota, fishermen may feel compelled to discard smaller fish that will bring in less profit at the dock. This process, called “high-grading,” can result in dead or dying fish tossed overboard, depleting fish stocks while yielding no profit for fishermen.

Discarding and high-grading have been described as “an almost inevitable outcome of quota-managed fisheries.”¹²¹ The implementation of catch shares typically increases pressure to discard and high-grade, particularly in multi-species fisheries.¹²² In the Icelandic cod fishery, small cod is only slightly above quota price. Predicted levels of discard due to high-grading are 4.7 percent for gillnetting (a type of net-based fishing) and 2.7 percent for longline fishing (a method using lines with baited hooks), while observations estimate it to be 3 percent and 1 percent, respectively.¹²³ Collectively speaking, this means a lot: Modeling suggests that gillnet and longline vessels discard 67 percent and 25 percent of their total small cod catch, respectively.¹²⁴ An existing ban on discarding fish in Iceland is therefore ineffective.

Bycatch — marine wildlife that is unintentionally caught while fishing for other species — can also increase under

catch share programs. For example, catch shares could increase the risk of fishermen catching endangered sea turtles in the Gulf of Mexico, as they are more likely to be accidentally caught with some types of gear than others.¹²⁵ Furthermore, fishery recovery efforts are hampered when bycatch is not reported, a problem that can intensify under catch share programs. In 2005, New Zealand’s largest fishery noted that unmonitored boats, particularly those with foreign owners, significantly underreported their bycatch.¹²⁶

The United States already has high levels of discarding, and it is unlikely that catch share programs will improve the situation. In 2002, estimates suggest that U.S. fisheries discarded 2.33 billion pounds of fish while landing 8.19 billion pounds, a discard-to-landings ratio of 0.28 — one of the highest in the world.¹²⁷ Three methods are suggested to reduce bycatch: modifying existing gear, changing to more selective gear (for example, changing from drift gill net fishing to trolling or from trawls to traps), and reducing fishing effort.¹²⁸ Low-impact fishing could be incentivized through better fisheries management. Unfortunately, the reverse is currently happening: Larger boats with less selective fishing methods are becoming dominant in the new privatized and consolidated catch share fisheries around the world.

Unreported catches can have major consequences for fishery management. Statistics are distorted, leading to inaccuracies in stock assessments, resulting in lowered TACs. In turn,

lowered TACs further incentivize unreported catches. In the extreme case, severe underreporting could lead to fisheries collapse.¹²⁹

Monitoring

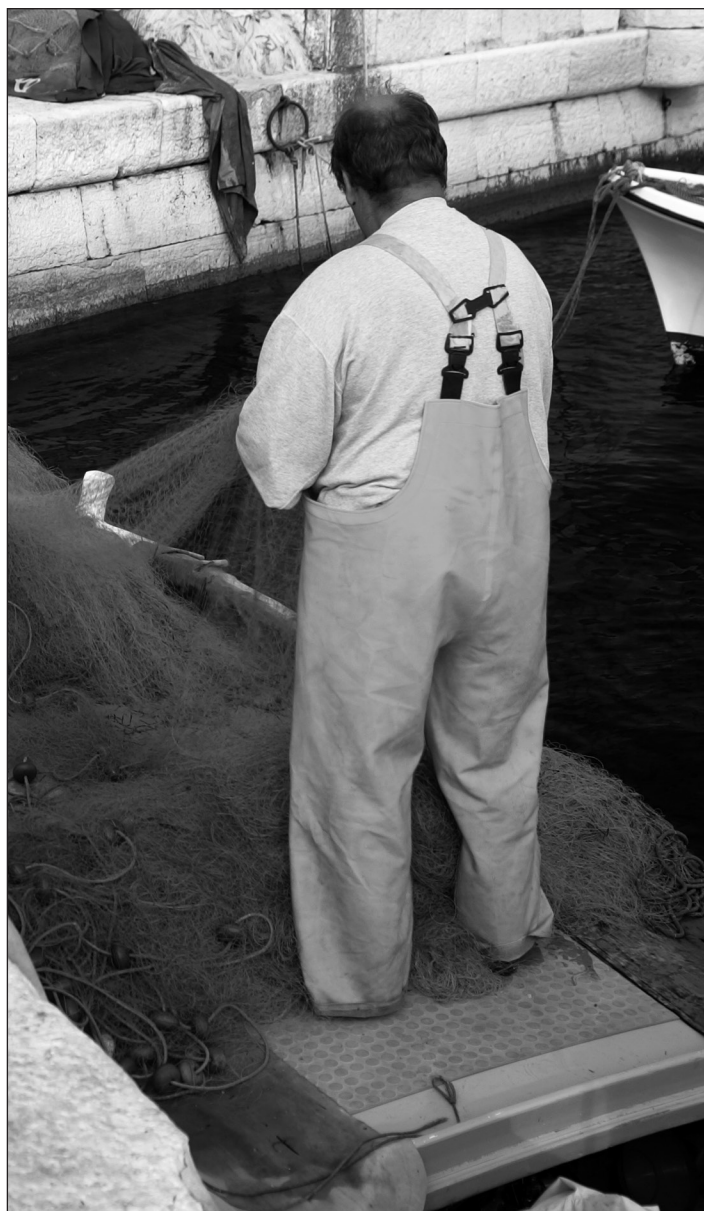
The success of catch share programs depends significantly on good data collection from both quota and non-quota holders who fish in related fisheries. Unreported landings, high-grading and discarding all weaken and can destroy the market for quota shares.¹³⁰ One of the only fisheries with significant and proven reductions in discard rates is the multispecies ground-fish trawl fishery in British Columbia, which has 100 percent at-sea observer coverage and dockside monitoring.¹³¹ At-sea observer coverage curbs discarding and high-grading, while dockside check-ins verify catch amounts and help maintain quotas and TAC in real-time. Without these monitoring measures, catch shares cannot be a successful management tool, and most fisheries do not have these extensive methods in place.

Illegal landings, in which fish are caught and sold without proper documentation, are also a problem in quota-regulated fisheries. Illegal landings are estimated to be between 10 and 30 percent of the legal catch weight in fisheries.¹³² And contrary to the common assumption that getting around the quota limit in a quota-regulated fishery leads to less demand for quotas and therefore lower prices for them, poorly managed catch share fisheries can result in both raised quota prices and significant non-compliance.¹³³ This is because non-compliant boats can more easily hide their illegal catch if they are already catching a very large amount of fish, which raises the demand for quota. Essentially, it is harder for someone monitoring the boats to notice 100 pounds of illegal catch if it is mixed in with 1,000 pounds of legal catch.¹³⁴

The United States struggles with data collection and enforcement. In recent years, the National Marine Fisheries Service (NMFS) only analyzed 66 fishing trips of catch share program vessels in the Gulf of Mexico red snapper fishery in 2009 and 55 in 2008.¹³⁵ In 2009, 1,898 red snapper were kept while 2,245 (more than half of the total catch) were caught accidentally and then discarded, were discarded dead, or met some other unknown fate rather than being sold at dockside.¹³⁶ These bycatch numbers were significantly worse than the 2008 numbers,¹³⁷ when only about a quarter of the total red snapper catch was discarded. This indicates that catch shares do not minimize bycatch problems over time and might actually make them worse.

The National Research Council (NRC) suggested catch share programs could improve data collection and enforcement by levying fees to fund on-board and/or dockside-monitoring programs.¹³⁸ New catch share programs in the United States are looking for ways to pass those costs on to fishermen, but the systems proposed could only further hurt smaller-scale

fishermen. For example, in the New England sectors program, which the NRC highlighted as one of the most difficult regions to monitor and enforce (due to the large number of small boats and numerous ports),¹³⁹ the necessary improvements for monitoring the catch shares program were estimated by a local research institute to cost between \$6 million and \$12 million.¹⁴⁰ While the federal government will be subsidizing much of the initial implementation,¹⁴¹ on-board observer costs are estimated to stay at \$700 to \$1,000 a trip.¹⁴² While large quota holders will have few problems paying, smaller fishermen, who are already working at the margins of profitability and suffering the additional costs of quota leases, may not be able to endure. Without long-term federal support, monitoring costs could drive the remaining small fishermen out of the industry.



The Dubious Legal Grounds for Catch Shares

The fish in our nation's waters are public resources, held in the public trust for the people of the United States.¹⁴³ As such, the government has the responsibility to promote access while balancing conservation needs and to compensate the public for any private use of the resource.¹⁴⁴

The NRC compiled a list of four key ramifications of the public trust doctrine for catch share programs:

First, in light of the essential inalienability of public trust resources, it reinforces concerns about the “giveaway” of public resources to private interests. Second, it confers on government a continuing duty of supervision and a responsibility to choose courses of action least destructive to trust resources. Third, it strengthens the principle set forth in the Magnuson-Stevens Act [the primary federal law on fisheries management] that individual quotas are privileges, creating no property rights and therefore subject to modification or revocation without compensation to their holders. Finally, it suggests that conferring exclusive rights of use should be accompanied by some form of compensation to the public.¹⁴⁵

Despite the NRC's warnings that the policy of ocean privatization through catch share programs treads dangerously close to betraying the public trust, NMFS continues to promote quota systems for all federally managed fisheries in the United States.

Under the Magnuson-Stevens Fishery Conservation and Management Act (referred to subsequently as the Act), all fishery management plans, not just catch share programs, are instructed to “take into account the importance of fishery resources to fishing communities ... in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.”¹⁴⁶ But as shown in previous sections, catch share programs are rife with adverse economic impacts on small fishermen and communities. The programs frequently fail to meet specific requirements to provide “fair and equitable initial allocations” of quota, prevent “excessive” consolidation, and set aside portions of the catch for entry-level fishermen and small-vessel owners and crews.¹⁴⁷

Furthermore, catch share programs are being implemented with a disingenuous presentation of cost. The Act requires management costs of catch share programs to be fully recovered through program administration, but in 2005 the Government Accountability Office criticized NMFS for failing to do just that.¹⁴⁸ Since costs are not always recovered, the U.S. public is essentially funding the administration and management of a private industry making money from a public resource — one that the public can no longer access.



The dubious legal standing of privatized catch share programs extends into international law as well. Most notably, fishermen in Iceland, fed up with paying significant leasing costs to private quota holders for the ability to fish a public resource, took their grievances before the United Nations Human Rights Committee. After reviewing the issue, the committee ruled that privatized catch share systems violated international law and the human rights of fishermen.¹⁴⁹

Learning from International Experience

More than 10 percent of the total ocean fish catch is currently taken under catch share programs.¹⁵⁰ Many of these programs have run into enormous problems with design, management and legality. Understanding their failures and successes should help the United States avoid the same mistakes and achieve similar successes.

Iceland – An Illegal System

Fishing is a major industry for Iceland, accounting for 37 percent of product merchandise exports and 8 percent of the gross domestic product in 2008.¹⁵¹ After experimenting with catch shares in the 1980s, Iceland extended the program to all its major fisheries in the Fisheries Management Act of 1990.¹⁵² The 19 species subject to catch shares in Iceland accounted for more than 97 percent of the value of catch taken in Iceland's waters in 2005.¹⁵³

Iceland's catch share system mirrors the privatized quota model closely. Fisheries are subject to TAC limits, quotas are assets of indefinite duration that can be divided and transferred and are subject to fees, and fishery managers initially allocate quotas based on catch history.¹⁵⁴ Other measures, such as gear restrictions, size limits and fishing closures, are also used.¹⁵⁵

Iceland's fisheries have consolidated significantly under catch shares — large, vertically integrated companies have come to dominate the seas. People often use feudal metaphors to describe the current political economy of fishing in Iceland. For instance, people refer to large catch share holders as “lords of the sea” because they dictate who gets to fish and they control the quantities and quota-leasing rates.¹⁵⁶

Since its implementation, the Icelandic catch share system has endured numerous legal and social challenges. Initially, the only boats allowed in a fishery were those grandfathered in when the quota system was enacted. In 1998, the Supreme Court of Iceland found this rule was unconstitutional on the grounds that it treated citizens unfairly.¹⁵⁷ After this ruling, new fishermen could be licensed to fish, but still had to acquire quota on the market — meaning they must purchase it from others. This has been exceedingly difficult for new fishermen, who do not have the advantage of leveraging existing quotas for loans.

Catch shares have generated a great deal of wealth for a few,¹⁵⁸ but at the cost of many. A variety of affected community members oppose the program: small-vessel owners who entered the system after quota allocation; fishing crew members, especially those who work on vessels with reduced quota or who are forced by the vessel owners to help pay for quota purchases; and community groups and inhabitants of small fishing villages and towns where people have lost their

jobs due to insufficient quota or none at all.¹⁵⁹ Communities have not been eligible for quota under the Icelandic system, only individuals, and as quota has consolidated in larger ports, small town inhabitants have suffered from increased unemployment¹⁶⁰

Iceland attempted to alleviate the unequal distribution of wealth under the system and make the industry more accessible to new fishermen¹⁶¹ by instituting a catch fee, starting at 6 percent in 2004 and increasing to 9.5 percent by 2009.¹⁶² The government levies this fee in addition to fees for monitoring, enforcement and stock assessments.¹⁶³ Studies have shown that a 9.5 percent catch fee is still too low to even recover costs from fishing subsidies,¹⁶⁴ meaning that the public is forced to finance at least some portion of the privatized profits of the industry.

Ultimately, several fishermen took their case to the United Nations Human Rights Committee, alleging that privatization violated the International Covenant on Civil and Political Rights by forcing fishermen without quotas to pay money to a privileged group of citizens (the quota holders) in order to pursue their occupation.

In Oct 2007, the committee sided with the fishermen, ruling that Iceland's privatized catch share market violated international law.¹⁶⁵ The majority of the committee members argued that quota no longer used by the original holders should revert to the state for equitable allocation.

The Icelandic government is currently investigating ways to dismantle its catch share programs in light of this court finding, as well as the widespread sentiment in Iceland that catch shares are unfair and accusations that speculative investments by fishermen with windfall catch share profits contributed to Iceland's 2008 economic collapse.¹⁶⁶ The Icelandic government is expected to send another wave of bankruptcy through the fisheries when it recalls these catch share permits.¹⁶⁷ The fishermen cut out of the system by the catch shares program will not be compensated, as Iceland has stated that doing so would be too expensive and could expose them to a host of lawsuits.¹⁶⁸

New Zealand – The Social Costs of Vertical Integration

New Zealand's catch share program, called the Quota Management System (QMS) manages 100 commercially significant fish stocks that contributed more than \$1 billion dollars in export revenues in 2000.¹⁶⁹ The QMS has even fewer regulatory restrictions than Iceland's program¹⁷⁰ — quotas are granted explicitly in perpetuity and are fully transferable between citizens, making the quotas very susceptible to consolidation issues.¹⁷¹ New Zealand's policies have led directly to major reductions in the number of small-scale fishermen,

leaving a fleet dominated by vertically integrated companies with large vessels.

Before adopting catch shares, New Zealand first reduced its fishing fleet by 37 percent by excluding all part-time (small-scale) fishermen from commercial fishing.¹⁷² The QMS initially distributed quota in 1986 as specific weights of fish, but soon changed its allocations to percentages of the TAC.¹⁷³ As soon as one year later, small-scale operators were already losing ground to firms accumulating quota. By the end of 1987, nine companies owned 86 percent of the lucrative orange roughy quota.¹⁷⁴

Smaller-scale fishermen have generally lost their place in the fishery under the combined weight of “reductions in TACs to rebuild stocks, increases in cost recovery levies [fees], high aggregations limits, aging of fishery participants, and the vertically-integrated seafood companies’ desire to increase quota holdings.”¹⁷⁵

The government of New Zealand has placed some limits on the aggregation of quotas, but fishermen often circumvent them by establishing multiple holding companies and placing quotas in family trusts, rather than keeping all their quota in a single pot.¹⁷⁶ For example, in 1998, “a single company in a relatively small fishery (in terms of numbers of entrants) used three holding and allied companies to hold 24, 22, and 171 tons of catching rights.”¹⁷⁷ Companies can also be exempted from aggregation limits. Exemptions allowing the aggregation of 35 to 45 percent of stock were common between 1988 and 1999, and in some cases, officials have allowed an exemption for owning quota for an entire stock.¹⁷⁸ In 1997, two companies each received 45 percent of the fish stock of alfonso and barracuda.¹⁷⁹

The result is large-scale consolidation and vertical integration by firms buying significant amounts of quota. In 1996, one study found that the 10 largest companies owned 75 percent of the shares and purchased between 46 and 100 percent of their quota.¹⁸⁰ Two of the companies, Sealord and Sanford, increased their quota holdings from 10.7 to 25.5 percent and 9.5 to 20.2 percent, respectively.¹⁸¹ Economic efficiency in New Zealand has come at the cost of the jobs of 3,000 small-scale fishermen and social upheaval in small fishing communities.¹⁸²

Catch share supporters regard consolidation as a positive outcome, arguing that there are currently too many boats chasing too few fish, and reducing the number of boats will lead to healthier fish populations.¹⁸³ But despite significant consolidation in New Zealand, many of their fish populations are still struggling. (See Figure 2 on page 10.)

New Zealand’s QMS has also had many legal battles over fishing rights with the indigenous population, the Maori.¹⁸⁴ After courts found that the QMS violated the 1840 Treaty of

Waitangi, the New Zealand government settled by purchasing quota and a share in one of the largest fishing companies in New Zealand and transferring it to the tribes.¹⁸⁵ Essentially the government was forced to buy, for the equivalent of more than \$100 million U.S. dollars,¹⁸⁶ a public resource from a private entity in order to transfer it to another private entity. The Maori are still the majority holders of that company.¹⁸⁷

Namibia – Holistic Fisheries Management: A National Benefit

When Namibia gained its independence from South Africa in 1990, it inherited fisheries greatly depleted by decades of overexploitation by European and Eastern Bloc countries.¹⁸⁸ Faced with the challenges of restoring both fisheries stocks and the security of its citizens, Namibia developed a catch share program that derives financial benefits for both fishermen and citizens. This program exemplifies that catch share systems can be implemented in ways that avoid the pitfalls of privatization and job loss inherent in the current U.S. approach to catch shares.

Namibia is one of the top 10 fishing nations in the world,¹⁸⁹ catching large amounts of hake, horse mackerel and pilchard.¹⁹⁰ Similar to the United States, Namibia regards fish in its territorial waters as a natural resource belonging to the Namibian citizens.¹⁹¹ Namibia manages their stocks by setting a TAC for seven key species and distributing non-transferable individual quotas among rights holders.¹⁹² Essentially, the Namibian government acts as a leasing manager for the fish and collects rents for the right to catch fish.

Namibia uses its catch share program to incentivize management goals important to the country, such as increasing the employment of its citizens and correcting for years of pervasive human rights injustices under South Africa’s apartheid system.¹⁹³ Fishing rights are granted for limited periods of time (seven, 10, 15 or 20 years), depending on the level of investment in the fishery and the level of Namibian ownership and employment, among other factors.¹⁹⁴ In 2005, 13,500 people were employed in Namibian fisheries, of which 5,575 (68 percent of whom were Namibians) were employed with on-board vessels and 7,925 (98 percent of whom were Namibians) worked ashore.¹⁹⁵ Rights and quota are not freely transferable, “so as not to undermine the Government’s goals of Namibianisation and empowerment within the sector.”¹⁹⁶ In 2003, Namibians held 162 of the 163 distributed fishing rights.¹⁹⁷

As one of the few countries in the world to successfully capture significant resource rents,¹⁹⁸ Namibia collects several fees from the fishery sector: quota fees, a fee specifically to fund research and training, a fee on bycatch, and license fees for vessels and processing facilities.¹⁹⁹ Fees totaled about \$13.2 million in 2003.²⁰⁰ Unlike catch share programs in the United States, there are no leasing fees to catch share



holders and no windfall profits. Fees are discounted based on Namibianisation criteria such as “degree of Namibian ownership, employment of Namibian crew, and whether fish was landed and/or processed in Namibia.”²⁰¹ Namibia’s fishing companies also contributed more than \$5 million over 14 years for the construction of schools, clinics and other needed civic facilities.²⁰²

Namibia’s fisheries are finding the balance between profitability and sustainability. The fishing sector is consistently the second-largest sector of the Namibian economy²⁰³ and in 2005 it contributed \$372.2 million to Namibia’s gross domestic product, up from \$97.8 million a decade earlier (a 380 percent increase).²⁰⁴ At the same time, many Namibian stocks are recovering from decades of foreign overfishing through active management of TACs.²⁰⁵ For example, the hake TAC grew from 132.3 million pounds in 1990²⁰⁶ to 286.6 million pounds in 2006,²⁰⁷ and catches are anticipated to increase in the future.²⁰⁸

The Namibian system is not a perfect model for the complex fisheries of the United States. Because of its short history, the Namibian fishery has relatively few fishing vessels and they tend to be larger, older and fuel-inefficient.²⁰⁹ Almost all of the catch is delivered to two ports, making it easier to achieve high monitoring and enforcement rates.²¹⁰ But despite these caveats, the United States should learn from Namibia’s commitment to sustainably maintaining its fish stock, incentivizing social and environmental goals, and sharing the benefits derived from catching fish equitably among the fishermen and citizens of its country.

Catch Shares Aren’t Fair

There is no question that our nation’s fisheries require responsible management systems to ensure their long-term health and profitability. The federal government has a duty to

manage our fish for the benefit of the public. The assumption that only privatization can achieve this is false. Following the “common pool resources” research by Nobel Prize-winning economist Elinor Ostrom, a recent analysis of fisheries has shown that there are many paths to effective co-management of fisheries resources between the public and the government.²¹¹ Quota systems may be a part of the answer, but they must not relinquish control of the resource.

As discussed in detail in this report, catch share systems, as implemented throughout the United States and the world, have typically resulted in an unfair giveaway of public resources to private entities. The gains in economic efficiency hailed by supporters of catch shares have come at the expense of the livelihoods of thousands of smaller-scale, traditional fishermen and their communities, and the claims of increased fishery sustainability and safety are often overblown. The design of catch share programs has violated the Magnuson-Stevens Fishery Management Act, and international courts have found them in violation of human rights.

While FWW believes that allocating total allowable catch to fishermen can be one of many effective tools in addressing the modern challenges of fishery management, these programs must be rigorously designed to ensure that they retain public control of fishery resources and return a portion of the value of each fishery to the public. Allocations to fishermen must be fair and equitable, and the programs should include incentives to maintain a diverse fleet, minimize damage to the environment, allow new participants in the fishery, improve stock assessments and fund community development.

By making sure that fishermen are part of the management process and are treated fairly, we can ensure that they belong to healthy communities and catch the fish in our markets using the best available practices. This promotes a better life for our nation’s fishermen and coastal and fishing communities, and a better product for consumers.

Appendix

Management Specifics of Selected Catch Share Programs

For the sake of clarity, we have chosen the term “catch share program” for discussion in this report, but in practice, these programs go by many names and have different management forms. We present here a short list of some of these programs with their official or more detailed names.

United States

- Alaska IFQ halibut and sablefish program (1995) – IFQ and CDQ
- Western Alaska community development program (1992) – CDQ
- Bering Sea and Aleutian Islands non-pollack cooperatives (2008) – LAPP and cooperatives
- Bering Sea and Aleutian Islands American Fisheries Act pollock cooperatives (1999) – cooperatives
- Bering Sea and Aleutian Islands Crab (King and Tanner) rationalization program (2005) – quota share and IFQ; harvester cooperatives; processor quota share and IPQ; CDQ.
- Central Gulf of Alaska rockfish (2007) – cooperative program
- Northeast (or New England) multispecies groundfish sector (2010) – sectors
- Georges Bank cod fixed gear sector (2006) – sectors, subsumed by the Northeast multispecies sectors
- Georges Bank cod hook sector (2004) – sectors, subsumed by the Northeast multispecies sectors
- Atlantic sea scallop IFQ (2010) – IFQ
- Gulf of Mexico grouper and tilefish IFQ (2010) – IFQ
- Gulf of Mexico red snapper IFQ (2007) – IFQ
- Mid-Atlantic golden tilefish IFQ (2009) – IFQ
- Surf clam and ocean quahog ITQ (1990) – ITQ
- Pacific Sablefish permit stacking program (2002) – permit stacking, IFQ
- Pacific groundfish trawl rationalization (2011) – IFQ and cooperatives
- Wreckfish ITQ program (1992) – ITQ

International

- New Zealand: ITQ through the Quota Management System (QMS)
- Canada: British Columbia halibut fishery – ITQ
- Canada: Scotia-Fundy inshore mobile gear groundfish fishery – ITQ
- Canada: British Columbia groundfish trawl fishery - ITQ
- Australia: Southern Bluefin tuna fishery – ITQ
- Norway: Norwegian North Sea cod fishery – IVQ
- Iceland: ITQ
- Namibia: Individual quota (non-transferable)

Acronyms

CDQ	Community development quota
IFQ	Individual fishing quota
ITQ	Individual transferable quota
IVQ	Individual vessel quota
LAPP	Limited access privilege program
NAS	National Academy of Sciences
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRC	National Research Council
QMS	Quota Management System (New Zealand)
TAC	Total allowable catch

Glossary

At-sea observer coverage

Fisheries monitoring where impartial observers inspect and identify the types and quantities of fish caught by a vessel in a fishing trip.

Bycatch

Fish caught during the targeting of one fish species that are not of that species. These may be kept or discarded, depending on regulatory and economic motivators.

Catch and trade

A fishery management system that caps the amount of fish that fishermen can catch using a total allowable catch and then portions out amounts of it to individuals. See also: catch shares.

Catch history

The qualifying years of catch records for individual fishermen that fishery managers typically use during the planning of a catch share system to determine the percentage of quota to distribute in the initial allocation of shares.

Catch shares

A fishery management system that divides a fishery's total allowable catch into discrete amounts that are gifted to individuals, communities or associations. There are many forms of catch share programs, including individual transferable quota systems and individual fishing quota systems.

Catcher-processor

A very large fishing vessel that both catches fish and processes them on-board.

Common-pool resources

Resources that are held for public use, such as fish, groundwater, national forests and public grazing lands.

Community development quota

Generally, an allocation of quota to a subsistence or artisanal fishing community. Fishery managers typically give them to communities that would otherwise be excluded or disadvantaged by catch share programs.

Discard

Fish that are caught and then released instead of brought to market. These fish may be alive, dead or in unknown health.

Dockside monitoring

Fisheries monitoring where impartial observers inspect and identify the types and quantity of fish caught when they are brought into port.

Finfish

Vertebrate and cartilaginous fish species, excluding crustaceans, mollusks and cephalopods.

Fishery

An industry of fishing defined by a combination of factors, including the target fish species, a geographic area of fishing, fishing methods and gear types.

Fishery management plan (FMP)

A management plan for a fishery operating in federal waters (typically between three and 200 nautical miles from shore). In the United States, these plans are produced by a regional fishery management council and authorized by the secretary of commerce.

Fleet reduction

The removal of boats and fishermen from a fishery — one of the intended outcomes of catch shares programs.

Gear restrictions

Limits placed on the type of gear used in a fishery. These may include gear type, amount and techniques.

Groundfish

A term loosely applied to some commercially harvested fish; this group includes flounder, sole, pollock, cod and haddock.

High-grading

A practice where fishermen discard lower-value fish of a targeted species in favor of keeping higher-value fish.

Individual fishing quota

A tool where fishery managers allocate a certain portion, usually a percentage, of the total allowable catch (TAC) to individual vessels, fishermen or other designated recipients.

Individual transferable quota

An individual fishing quota that can be sold, leased, or given without penalty to another fisherman.

Limited access privilege program (LAPP)

The term used in the Magnuson-Stevens Act (the Act) for the broad range of programs commonly called catch share programs. More specifically, LAPPs issue permits for a portion of the total allowable catch (TAC). LAPPs do not include community development quota as defined under the Act.

Magnuson-Stevens Fishery Conservation and Management Act

The federal legislation that establishes fishery management councils and the mandatory and discretionary guidelines for fishery management plans in the United States.

Multispecies fishery

A fishery where fishermen catch more than one species simultaneously. Most fisheries are multispecies due to the imprecise nature of fishing gear.

National Academy of Sciences (NAS)

A private nonprofit society of scientists that advises Congress on federal government and technical matters.

National Marine Fishery Services (NMFS)

The federal agency within NOAA that oversees fisheries science and regulation.

National Oceanic and Atmospheric Association (NOAA)

The federal agency within the Department of Commerce responsible for ocean and coastal management.

National Research Council (NRC)

The operating arm of the National Academy of Sciences.

New Zealand Quota Management System (QMS)

The overall fisheries management system in New Zealand.

Open access

A condition in which access to a fishery is unrestricted by permits, quota, gear type or other limits.

Overfishing

Fishing that reduces fish stocks to a level below the rate at which the fish naturally replace themselves.

Permit

A type of license that limits access to a fishery.

Quota

A percentage or amount of fish that fishermen can harvest.

Race for fish

A situation where fishermen compete to catch fish in a fishery with a total allowable catch (TAC) but no other restrictions.

Rationalization

The term Alaskans use to describe their catch share management program for crab fisheries.

Sectors management

A type of catch shares program in the New England multi-species fishery, where fishery managers distribute quota to groups of owners (sectors) instead of individual owners.

Speculative fishing

A practice where new fishing firms enter a fishery to establish a history of catch, in anticipation of windfall profits from new catch shares management.

Total allowable catch (TAC)

The total amount of fish that fishery managers will permit fishermen to catch in a fishery, typically in a given year.

Tragedy of the commons

The idea that multiple individuals will exploit and even deplete a common resource for their personal benefit, even when it is against everyone's collective long-term interest.

Vertical integration (in fisheries)

A process in which individual fishing operations seek to control different stages of fish handling (catching, processing, marketing).

Windfall profit

A sudden influx of wealth created when fishery managers give quota to a limited number of fishermen in a catch share fishery.

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