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SECTOR ALLOCATION: A MISGUIDED SOLUTION

Shannon Carroll*

I. INTRODUCTION

On April 9, 2010, the National Marine Fisheries Service (NMFS)¹ issued Amendment 16 to the New England Multispecies² (groundfish) Fishery Management Plan, implementing what is known as “sector allocation.”³ In its simplest form, sector allocation is a method of allocating fishing privileges—the ability to harvest fish—to individual groups of fishermen, who are then able to use, buy, or sell those privileges.⁴ Sector allocation is a radical departure from traditional management practices in New England, and, after nearly three decades of pervasive overfishing, increasingly Draconian fishing regulations, and ongoing legal battles, it has the potential to signal a positive new direction for the New England groundfish fishery.⁵

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1. The National Marine Fisheries Service is now known as NOAA Fisheries Service; however, as a matter of consistency, this Comment will continue to refer to the Service as NMFS.

2. The term “multispecies” refers to a stock of twelve species of bottom-dwelling fish, including, most notably, cod and haddock. Roger Fleming et al., Twenty-Eight Years and Counting: Can the Magnuson-Stevens Act Deliver on its Conservation Promise?, 28 VT. L. REV. 579, 581 (2004).


4. Id.

Sector allocation fits within the broader category of “catch share” fishery management programs. NMFS defines “catch share” as “a general term for several fishery management strategies that allocate a specific portion of the total allowable fishery catch to individuals, cooperatives, communities, or other entities.” Generally, catch share programs contain two elements: (1) an output control—an annual limit on the total number of fish that can be harvested in a fishery, commonly referred to as the “total allowable catch”; and (2) a transferable allocation of that fishery’s annual catch limit to individual fishermen or vessels, commonly referred to as “quota.”

Catch shares are part of “a global movement” in fisheries management toward a market-based approach to regulation and are deeply rooted in economic perceptions of property rights, efficiency, and stewardship. Accordingly, the theory behind catch shares is twofold: the use of output controls allows fisheries managers to directly limit fish mortality, while the allocation of transferable quota—in effect a quasi-property interest—to individual fishermen incentivizes efficiency and stewardship through ownership of fishing privileges.

The success of catch share programs is well documented. Although each individual program is unique, catch share programs have been implemented in over one hundred different fisheries worldwide. By and large, the evidence demonstrates that catch share programs effectively control overfishing, reduce overcapitalization of the fishery (generally through consolidation), and increase profits for remaining


7. Id.


9. Id.


Thus, there is little question as to the effectiveness of catch share programs as a fishery management tool. That success raises several issues, however. Catch share programs promote economic efficiency by creating a tradable market for quota. Almost inevitably, this entails consolidation of a fishery’s participants. But because the markets for quota are artificially designed by fisheries managers, the way in which managers initially allocate quota and dictate how that quota can be bought or sold becomes a determinative factor in how quickly and to what degree that consolidation occurs. Not surprisingly, in fisheries with a diverse array of participants, such as the New England groundfish fishery, building broad support for catch share programs is difficult.

Catch shares raise other socioeconomic concerns as well. The individual allocation of fishing privileges alters the traditional perspective of viewing the seas as “commons”—a notion that still resonates with coastal New England fishing communities. Moreover, concerns over the consolidation of fishing effort and the perceived privatization of a public resource often elicit visceral reactions from fishermen, politicians, and community members who fear the loss of economic opportunity and cultural heritage from their region.

13. Id. at 49-50.
14. See, e.g., MACINKO & WHITMORE, supra note 8, at 46.
15. SHARING THE FISH, supra note 10, at 33-34.
16. See id. at 34-35.
17. See MACINKO & WHITMORE, supra note 8, at 36-37.
18. Id.
19. The description of fishing grounds as commons is derived from Garret Hardin’s Tragedy of the Commons essay. Fishery regulators have increasingly limited access to fishing grounds, which has been a major cause of friction in New England, where open access is viewed as part of the New England fishing tradition. See, e.g., Operations of the Regional Fishery Management Councils and the Reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act: Hearing Before the H. Comm. on Resources, 109th Cong. (2005) (statement of Francis W. Blount, Jr., Chairman, New England Fishery Management Council) [hereinafter Blount Statement] (noting the extreme political volatility of limiting access in New England). As will be discussed below, the implementation of the sector program is a further departure from this open access tradition because, in effect, it allocates not just access, but a percentage of the total catch to individuals. See infra Part II.
20. See Blount Statement, supra note 19 (“[F]ishery participants in New England consider [catch shares] an extremely sensitive issue and a very real threat to fishing communities and small boat fleets.”).
concerns have spawned significant debate as to whether the benefits of catch share programs outweigh their potential problems.21

Sector allocation is billed as an innovative solution to the issues raised by catch share programs, as well as an answer to the chronic overfishing of groundfish in the Gulf of Maine, for two reasons.22 First, sector allocation is a voluntary management program.23 Fishermen may choose to continue fishing under the existing regime, which regulates catch through limits on days-at-sea, or opt to join the sector program.24 Second, the sector program shifts the burden of determining quota allocation and implementing consolidation safeguards from the government to the fishermen.25 Sector members negotiate allocation through contractual agreements and are free to impose limits on consolidation of quota through those agreements; therefore, the design of the market structure is almost entirely up to the fishermen.26 Thus, on its face, the sector program maintains the benefits of a traditional catch share program (e.g., strict limits on fish mortality and increased economic viability) while providing flexibility for fishermen and fishing communities to find workable solutions to some of the more systemic problems of catch share programs (e.g., control over allocation and the rate at which consolidation occurs).

This Comment advances the debate over catch share programs by considering whether sector allocation represents a potentially promising new direction for fisheries regulation. To do so, Part II explores the legal and historical framework that has set the stage for sector allocation and explains why fisheries managers in New England had little choice but to adopt the sector program. Next, Part III argues that sector allocation is an imperfect response crafted to accommodate a number of well-intended but poorly conceived legal constraints and, therefore, is not a promising innovation. Part IV concludes by recommending a modest reform to the sector program, while specifically addressing how the legal framework for catch share programs at the national level could be

22. See generally One Last Chance, supra note 5.
redesigned to retain its positive features while ameliorating some of its problems.

II. THE HISTORICAL AND LEGAL CONTEXT FOR SECTORS

A. Closing the International Commons—The 1976 Magnuson-Stevens Act

For hundreds of years, the groundfish stocks off of New England’s coast comprised one of the world’s greatest fisheries. Basque and Viking fishermen routinely fished these waters long before the arrival of Christopher Columbus, and “[f]our centuries of New England history, culture and economic development [were] grounded in the harvest of halibut, cod, haddock, and other fish.” Before 1977, when the Fishery Conservation and Management Act went into effect, federal jurisdiction of fisheries resources was limited to twelve nautical miles from shore. The waters beyond federal jurisdiction were considered the high seas—an international commons with no governmental body or international agreement regulating the extraction of fisheries resources.

Given the fecundity of the resource, few before the twentieth century believed that the groundfish fishery could be overfished. However, with the arrival of technologically advanced foreign vessels to the Gulf of Maine in the 1960s, it soon became apparent that even the great groundfish fishery was vulnerable to overfishing. As a result, the fishing industry lobbied for the exclusion of foreign vessels from

27. Fleming et al., supra note 2, at 581.
29. One Last Chance, supra note 5, at 3.
31. Id. at 26.
32. Kurlansky, supra note 28, at 32. Indeed, biologist Thomas Huxley made the now ominous remark, “[I believe] that the cod fishery . . . and probably all the great sea fisheries, are inexhaustible; that is to say, nothing we can do seriously affects the number of the fish.” Quentin Bone & Richard H. Moore, Biology of Fishes 454 (3d ed., 2008).
Congress was receptive, blaming “the intense foreign effort” for the depletion of the nation’s fish stocks. Viewing both the biological depletion of the Gulf and the “old” and “inefficient” fishing fleet present in the United States as symptoms of “a common property resource,” Congress passed the Fisheries Conservation and Management Act (now commonly known as the Magnuson-Stevens Act (MSA)) in 1976, extending federal jurisdiction to 200 nautical miles and excluding foreign vessels from within that boundary.

The MSA established “[a] national program for the conservation and management of fisheries resources in the United States” with the express purposes of “prevent[ing] overfishing, . . . insur[ing] conservation, . . . [and] realiz[ing] the full potential of the Nation’s fishery resources.” In addition to extending federal authority to 200 nautical miles from the U.S. coast, the MSA delegated regulatory authority to NMFS, through the Secretary of Commerce. The MSA also established eight Regional Fishery Management Councils as part of “a bifurcated decision-making process for managing fishery resources within the EEZ . . . .” Each of the eight councils holds authority over a geographic region and is charged with reflecting the “expertise and interest of the several constituent States” within that region. While councils perform a variety

34. Id. at 26.
36. Id.
39. Id. § 1811(a) (the Exclusive Economic Zone (EEZ)). Notably, states still retain jurisdiction over the waters within three geographical miles from shore. 43 U.S.C. § 1301(a)(2) (2006).
40. More accurately, the MSA charges the Department of Commerce with authority to implement the Act. However, in practice NOAA, delegating through NMFS, acts as the primary regulatory authority. ENVTL. PROT. AGENCY, REVIEWING ENVIRONMENTAL IMPACT STATEMENTS FOR FISHERY MANAGEMENT PLANS 9 (2005).
41. 16 U.S.C. §§ 1851, 1854.
43. 16 U.S.C. § 1852(a)(2). The eight regions are: New England (Maine, Massachusetts, Rhode Island, New Hampshire, Connecticut); Mid-Atlantic (New York, New Jersey, Delaware, Pennsylvania, Maryland, Virginia, North Carolina); South Atlantic (North Carolina, South Carolina, Georgia, Florida); Gulf of Mexico (Texas, Louisiana, Mississippi, Alabama, Florida); Caribbean (U.S. Virgin Islands, Puerto Rico);
of functions, their primary purpose is to prepare a fishery management plan (FMP) for each fishery under federal jurisdiction.44 The FMP is the “foundational” regulatory framework, providing the basic regulations and policies that govern the fishery.45 All FMPs must be consistent with the provision of the MSA.46 Once developed, the council must submit the FMP to NMFS for approval, disapproval, or partial disapproval.47 If a council wishes to modify an existing FMP, it may do so by promulgating an amendment to the FMP.48 Amendments to the FMP must meet the same legal standards as the original FMP.49

B. The Problem with Traditional Fisheries Management

The implementation of the MSA did little to alter traditional fisheries management approaches. Under a traditional fisheries management regime, managers rely on input controls—designed inefficiencies—to control fish mortality.50 Input controls typically include gear restrictions (e.g., minimum mesh size for nets), vessel restrictions (e.g., limits on the size or capacity of fishing vessels), and license limitations (e.g., restriction on the number of licenses issued), all of which are designed to indirectly control fish mortality.51 However, rather than achieving a sustainable harvest, input controls almost always lead to problems of overcapitalization and overfishing.52

Generally, input controls fail for two reasons. First, input controls do not directly control the level of fish mortality; rather, input controls dictate the level of fishing effort allowed to occur—directly, through trip

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44. Id. § 1852(h)(1).
47. Id. § 1854(a)(3); Mannina, Jr., supra note 42, at 8.
48. ENVTL. PROT. AGENCY, supra note 40, at 15.
49. Id.
51. SHARING THE FISH, supra note 10, at 115.
limits, or indirectly, through gear restrictions and shortened seasons.\textsuperscript{53} As a result, fisheries managers are effectively forced to predict the level of catch per effort, leading to a great deal of uncertainty and regulatory flux within the fishery.\textsuperscript{54} Second, input controls create an incentive for fishermen to invest in more advanced vessels and gear.\textsuperscript{55} As managers aim to make the fishery less efficient, fishermen set out to make their harvest \textit{more} efficient.\textsuperscript{56} The result is an overcapitalized fishery, with fishing effort exceeding biological limits.\textsuperscript{57} In turn, managers are forced to constantly amend fishing regulations, resulting in regulatory flux.\textsuperscript{58}

Similarly, the primary method of output controls imposed under traditional fisheries management regimes—a total allowable catch (TAC) limiting the amount of fish that may be harvested during a fishing season—further exacerbates the problems of overcapitalization and economic inefficiency.\textsuperscript{59} Namely, when a TAC is imposed as the sole output measure (known as a stand-alone TAC), rather than individually allocated through a catch share program, the “race for the fish” becomes increasingly more competitive.\textsuperscript{60} This phenomenon occurs because under a stand-alone TAC, the fishery closes once the TAC is reached; thus, instead of racing against the biological limits of the fishery, fishermen must now compete against each other for individual shares of the TAC.\textsuperscript{61} As in a fishery managed under input controls, fishermen are given an incentive to invest in more advanced vessels and gear, leading to further overcapitalizing of the fishery.\textsuperscript{62} In turn, the race for the fish leads to shorter seasons, as the capacity of the fleet increases while the

\textsuperscript{53} \textit{One Last Chance}, supra note 5, at 6.
\textsuperscript{54} \textit{Id.} at 9.
\textsuperscript{55} \textit{Id.} at 6.
\textsuperscript{58} \textit{Id.} In the Northeast groundfish fishery, the futility of these controls is well-documented. Until the adoption of the sector allocation program, the New England Fishery Management Council primarily managed effort, and thus fish mortality, by limiting both the number of entrants to the fishery and the number days a vessel could spend at sea. Holland & Wiersma, \textit{supra} note 5, at 1077. Yet even as fisheries managers reduced days at sea and implemented additional input controls, groundfish landings continued to increase and fishing mortality regularly exceeded overfishing thresholds. \textit{Id.}
\textsuperscript{59} \textit{Ocean Blueprint}, \textit{supra} note 50, at 287.
\textsuperscript{60} \textit{Macinko & Whitmore, supra} note 8, at 14.
\textsuperscript{61} \textit{Id.}
\textsuperscript{62} \textit{See id.} at 14-15.
TAC remains stagnant. In the most extreme cases, fishing seasons are compressed into a matter of minutes. Additionally, stand-alone TAC fisheries augment “supply gluts” in the market, a phenomenon that not only has an adverse effect on market prices for fishermen, but also for fish quality and supply for processors, dealers, and ultimately consumers. Thus, while TACs are successful in controlling fish mortality—if set at the correct level—they are not successful in promoting an economically viable fishery.

A condensed history of the management of the New England groundfish fishery demonstrates these failures of traditional fisheries management. Following the passage of the MSA in 1977, the New England Fisheries Management Council (the Council) inherited a groundfish fishery that was left depleted by foreign vessels. Initially, the Council began regulating the fishery through the use of quotas (stand-alone TACs) and input controls (minimum mesh and fish size limits). However, as national fleet capacity increased over time, the Council quickly abandoned quota-based regulations, viewing such measures as a hindrance to growth. Although groundfish stocks initially showed signs of recovery, this phenomenon was largely attributed to the absence of foreign fishing pressure, and, as the domestic fleet expanded, the downward biological trend continued. In 1986, the Council implemented more restrictive input controls (again, minimum mesh and fish sizes) with the promulgation of the Northeast Multispecies FMP. The Council’s restrictions proved ineffective,

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63. See e.g., id.
64. For example, British Columbian herring fishermen reached the fishery’s annual TAC eight minutes into the season. Polly Ghazi et al., Our Plundered Seas, THE OBSERVER (LONDON), Apr. 2, 1995, reprinted in WORLD PRESS REVIEW, June 1, 1995.
65. REDSTONE STRATEGY GROUP & ENVTL. DEF., ASSESSING THE POTENTIAL FOR LAPPs IN U.S. FISHERIES 5-6 (2007) [hereinafter REDSTONE].
66. OCEAN BLUEPRINT, supra note 50, at 275.
70. Id. at 1.
71. Hall-Arber, supra note 67, at 145.
largely as a result of increased fishing effort within the confines of the existing regulatory framework,\textsuperscript{72} and in 1989, the Council declared several of the stocks overfished, leading again to more restraining regulations that also failed to end overfishing.\textsuperscript{73}

In 1991, the Conservation Law Foundation sued the Department of Commerce and the Council, alleging that they had failed to prevent overfishing as mandated under the MSA and its corresponding regulations.\textsuperscript{74} The Conservation Law Foundation specifically cited the inability of input controls to reduce fish mortality.\textsuperscript{75} The suit led to the implementation of Amendment 5 to the Multispecies FMP and, as a result of warnings of the “imminent collapse of Georges Bank cod,” to emergency closures of parts of the Gulf of Maine.\textsuperscript{76} The crux of the Amendment 5 regulations, however, was imposition of a limited entry system, which effectively closed access to new entrants, and a days-at-sea program, which limited the number of days-at-sea a vessel could fish.\textsuperscript{77}

Amendment 5, like its predecessors, proved unsuccessful in controlling fish mortality and groundfish stocks continued to decline.\textsuperscript{78} In 1996, the Council adopted Amendment 7, which limited the days-at-sea program, tightened daily catch limits on the fishery, and restricted mesh size of trawling nets.\textsuperscript{79} Over the next several years, the Council promulgated additional amendments and “framework adjustments”\textsuperscript{80} imposing significant cuts to the days-at-sea program and introducing a buyback program to reduce fleet capacity.\textsuperscript{81}

By 2001, the Multispecies groundfish FMP had been altered more than thirty times, with limited success.\textsuperscript{82} The Conservation Law

\textsuperscript{72} OCEAN BLUEPRINT, supra note 50, at 287.
\textsuperscript{73} Hall-Arber, supra note 67, at 145.
\textsuperscript{74} Robinson & Pederson, supra note 69, at 1.
\textsuperscript{75} Murawski, supra note 68, at 17.
\textsuperscript{76} Robinson & Pederson, supra note 69, at 2. NOAA scientists warned: “Failure to take strong management actions now to preserve the limited spawning biomass for [the Gulf of Maine] cod may have severe and potentially long-lasting consequences for both the stock and fishery.” Murawski, supra note 68, at 17.
\textsuperscript{77} ONE LAST CHANCE, supra note 5, at 8.
\textsuperscript{78} Robinson & Pederson, supra note 69, at 1-2.
\textsuperscript{79} Hall-Arber, supra note 67, at 145.
\textsuperscript{80} A framework adjustment is a change to the existing FMP that requires fewer procedural steps than an amendment and is therefore used to implement regulatory changes quickly, during the fishing season. See ENVTL. PROT. AGENCY, supra note 40, at 15.
\textsuperscript{81} Hall-Arber, supra note 67, at 145.
\textsuperscript{82} Id. at 146.
Foundation filed a second lawsuit alleging, among other things, that the rebuilding plans implemented by NMFS and the Council were not sufficient to end overfishing.83 The second suit led to the development of Amendment 13, which aimed to “address stock rebuilding issues, greatly reduce fishing effort and capacity in the multispecies fishery and implement additional measures to specifically address habitat protection.”84 Among other input restrictions, Amendment 13 severely restricted the allowable days-at-sea for fishermen in the fishery.85 However, the drastic measures imposed under Amendment 13 also failed to end overfishing, setting the stage for the sector initiative.86

Thus, the history of the New England groundfishery demonstrates the failures of the status quo. The Council’s reliance on input controls failed to effectively reduce fish mortality, in part because the Council was politically unable to introduce regulations that were stringent enough, and in part because of the inherent inability of input controls to directly affect fish mortality.87

C. The Rise of the Catch Share Solution

The failures of the New England groundfish fishery are not unique. As fish stocks throughout the country continued to decline during the 1980s, Regional Fishery Management Councils struggled to impose regulations that effectively controlled fish mortality.88 Traditional management methods locked regulators and fishermen in a cyclical battle that required increasingly “Draconian command-and-control measures” in order to achieve any semblance of conservation.89 Consequently, in this context of management failure and subsequent economic and biological decline, fisheries managers began experimenting with market-based quota programs.90

The theory behind market-based quota programs was not new. Since the 1950s, many fisheries economists have argued for a property-rights

83. Id.
84. Id.
87. OCEAN BLUEPRINT, supra note 50, at 275, 287.
88. Id.
89. REDSTONE, supra note 65, at 4-6.
90. See, e.g., SHARING THE FISH, supra note 10, at 26.
solution to the problem of overfishing.\textsuperscript{91} As managers began recognizing
the increased role of markets and economic factors “in protecting
environments and managing natural resources,” incorporating these
concepts into fisheries management seemed like a logical outgrowth.\textsuperscript{92}
In practice, at least from a global perspective, these approaches also were
not new. Countries such as Canada, New Zealand, Australia, and Iceland
began experimenting with market-based programs beginning in the late
1970s, with significant success.\textsuperscript{93} However, because market-based
programs ran counter to what was seen by many as a “freedom to fish,”
these ideas struggled to take hold in the United States until the early
1990s.\textsuperscript{94}

As support for market-based programs gained traction in the United
States, managers began experimenting with individual fishing quotas
(IFQs) and individual transferable quotas (ITQs).\textsuperscript{95} Under an IFQ
regime, fisheries managers allocate a specific amount of quota—usually
a percentage of the TAC—to each eligible fisherman.\textsuperscript{96} In turn, this
quota can be harvested, bought, sold, or leased by the quota holder or
other entities.\textsuperscript{97}

Today, the breadth of market-based programs has expanded beyond
IFQs.\textsuperscript{98} In order to capture this diversity under a single term, NMFS
refers to such programs as “catch shares.” As discussed earlier, NMFS
defines “catch share” as “a general term for several fishery management
strategies that allocate a specific portion of the total allowable catch to
individuals, cooperatives, communities, or other entities.”\textsuperscript{99} Put more
directly, catch shares provide the benefits of output controls (a hard limit
on the level of fish mortality in the form of a TAC) while reducing the
incentive to race for the fish by allocating a portion of that TAC to an
individual, community, or group.\textsuperscript{100}

\begin{itemize}
\item \textsuperscript{91} See, e.g., H. Scott Gordon, The Economic Theory of a Common-Property
\item \textsuperscript{92} Sharing the Fish, supra note 10, at 26.
\item \textsuperscript{93} Id. at 26-32.
\item \textsuperscript{94} Id. at 26.
\item \textsuperscript{95} Id. The term IFQ and ITQ are often used interchangeably, with IFQ being the
more common term in the United States. The technical difference between the two is that
IFQs could, in theory, include some type of non-transferable permit; however, in practice
there is little distinction between the terms. For the purposes of this Comment, the term
IFQ will encompass ITQs. See, e.g., Design of LAPPs, supra note 57, at 1.
\item \textsuperscript{96} Ocean Blueprint, supra note 50, at 288.
\item \textsuperscript{97} Id.
\item \textsuperscript{98} See Design of LAPPs, supra note 57, at 1.
\item \textsuperscript{99} Catch Share Policy, supra note 6, at 3.
\item \textsuperscript{100} See id.
\end{itemize}
Catch share programs have several general advantages over traditional fisheries management approaches. Most notably, catch share programs are effective at curbing overcapitalization of the fishery.\textsuperscript{101} When TAC is individually allocated, as is the case with most catch shares, fishermen are no longer compelled to race for the fish;\textsuperscript{102} consequently, there is less economic incentive to invest in larger vessels and advanced technology.\textsuperscript{103} Likewise, markets and consumers benefit by receiving a higher quality product that is delivered throughout the year, instead of in short windows correlating with fishing seasons.\textsuperscript{104} Additionally, safety and gear conflicts typically decline because quota owners have greater flexibility in dictating both the type of weather and the speed in which they harvest fish.\textsuperscript{105} Finally, proponents argue that catch shares provide greater incentives for stewardship and sustainability.\textsuperscript{106}

Conversely, several common issues arise from the implementation of catch share programs. As noted above, catch shares are a useful tool to improve the efficiency of a fishery.\textsuperscript{107} In practice, however, this usually means consolidating the number of participants in the fishery.\textsuperscript{108} Thus, one of the fundamental problems that fisheries managers face in the designing of catch share programs is determining “just the right number of people” for the fishery—a process that inherently requires a degree of social engineering and judgment.\textsuperscript{109} Hence, the process by which the initial allocation of fishing privileges is determined raises many issues of fairness.\textsuperscript{110} In turn, catch shares often reduce the number of crew

\textsuperscript{101.} SMITH ET AL., supra note 10, at 4.
\textsuperscript{102.} For example, the length of the Alaskan halibut fishery expanded from 3 to 245 days after the introduction of IFQs. TERRY ANDERSON & DONALD LEAL, FREE MARKET ENVIRONMENTALISM 113-14 (2001).
\textsuperscript{103.} SMITH ET AL., supra note 10, at 4.
\textsuperscript{104.} Id.
\textsuperscript{105.} Id.
\textsuperscript{106.} ONE LAST CHANCE., supra note 5, at 6.
\textsuperscript{107.} SMITH ET AL., supra note 10, at 4.
\textsuperscript{108.} DESIGN OF LAPPs, supra note 57, at 8.
\textsuperscript{109.} Id.
\textsuperscript{110.} SMITH ET AL., supra note 10, at 4. To a certain degree, the success of and support for catch share programs is derived from the argument that market forces will “determine the right number of people.” MACINKO & WHITMORE, supra note 8, at 47-48. However, because catch share programs are artificially created markets—they are created and designed by fisheries managers—the decisions about how a catch share program will operate ultimately require determining winners and losers. Id. For example, the way in which managers initially allocate quota affects the rate of consolidation. Id.; SMITH ET AL., supra note 10, at 4. If managers use an individual’s catch history to determine initial allocation (the most common practice), then factors such as the duration of the
positions available and increase entry costs for new participants because consolidation reduces the number of vessels participating in the fishery.\textsuperscript{111}

In addition to economic and social criticisms, observers also question whether catch shares promote environmental stewardship within the fishery.\textsuperscript{112} Specifically, critics note that catch share programs may incentivize environmentally destructive practices such as “highgrading”—a practice in which fishermen, seeking to fill their quota with the highest-value fish possible, discard less valuable fish.\textsuperscript{113}

Beyond the practical arguments, the push for catch share programs can be viewed as an outgrowth of traditional Western economic and political thought, “where markets are the source of efficiency and, ultimately, of economic growth and social welfare.”\textsuperscript{114} Indeed, from an economic perspective, the problem, and therefore the solution, is fairly straightforward. Through the economic lens, the “fisheries problem” is one of a lack of property rights: because the individual fisherman has no property interest in the fish he does not catch, the individual fisherman has no vested interest in the future of the fishery.\textsuperscript{115} Accordingly, as the fishery becomes increasingly competitive due to more entrants and/or fewer fish, fishermen invest in more technologically advanced boats and equipment.\textsuperscript{116} Consequently, the fishery becomes dramatically overcapitalized to the point where the cost of fishing effort rises as the biological integrity of the fishery declines.\textsuperscript{117} Thus, economic theory suggests that the solution to a lack of property rights is the implementation of a property rights system.

catch history sample and the period from which that sample is taken directly favor certain individuals over others. MACINKO & WHITMORE, supra note 8, at 47-48; SHARING THE FISH, supra note 10, at 4. Likewise, the limits that managers place on the trading and selling of quota affect the rate and degree of consolidation. MACINKO & WHITMORE, supra note 8, at 47-48; SHARING THE FISH, supra note 10, at 4. In the Alaskan halibut fishery, for instance, quota ownership is restricted by vessel length (e.g., a fisherman with a sixty-five foot vessel may only harvest quota assigned to that vessel class). Consequently, the rate and degree of consolidation is limited because, as a practical matter, quota transferability is not fluid. See SHARING THE FISH, supra note 10, at 4.

\textsuperscript{111} SHARING THE FISH, supra note 10, at 4.
\textsuperscript{113} Id.
\textsuperscript{114} SHARING THE FISH, supra note 10, at 26.
\textsuperscript{115} Gordon, supra note 91, at 130-31.
\textsuperscript{116} Id. at 133.
\textsuperscript{117} Id.; see also SUZANNE IUDICELLO ET AL., FISH, MARKETS, AND FISHERMEN: THE ECONOMICS OF OVERFISHING 36-38 (1999).
However, viewing the success of catch shares solely through an economic lens oversimplifies and mischaracterizes the problem of traditional fisheries management. First, as a matter of law, catch shares are not, nor have they ever been a property right.118 Instead, catch shares are an allocated privilege granting access to the fish, not a right to the fish themselves.119 Moreover, these privileges may be revoked “at any time.”120 Thus, the success of catch share programs is not caused by the creation of a property right in a fishery because, as a matter of law, no property right exists.121 Rather, the success stems from the ability to implement a TAC—a strict limit on fish mortality—while rationalizing the fishery through the assignment of privileges in a way that maintains economic, and to a lesser degree, social stability.122 On the surface, the distinction appears to be little more than semantics; however, much of the hostility to catch shares, particularly in New England, stems from their characterization of catch shares as a property right.123 Thus, in order to further the debate regarding the use of catch shares, it is important to precisely define why they succeed.

D. The Sustainable Fisheries Act of 1996—A Moratorium on Catch Shares

As the number of catch share programs grew in the United States, so did the division between proponents and opponents of the program:

What occurred in the [catch share] fisheries in the first half of the 1990s strengthened the forces both for and against putting other fisheries in the United States under [catch share] regimes. To many these developments seemed a resounding success. The industry became more efficient, fishing effort was reduced, the fishing season became longer, and the fish was turned into a more valuable product. The time seemed ripe for applying this regime to other fisheries in the United States. Others saw undesirable consequences, or regarded as negative effects that others viewed as positive. Concentration of quotas in fewer hands, higher price of quotas and barriers to entry, more supplies into the fresh fish market and less processing, decline in

119. DESIGN OF LAPPs, supra note 57, at 5.
120. 16 U.S.C. § 1853a(b)(2).
121. MACINKO & WHITMORE, supra note 8, at 48.
122. See id.
123. See id. at 54-55.
employment of fishermen and their wages; these were viewed by some people as undesirable and not to be repeated in other settings.124

Responding to the polarizing opinions, Congress amended the MSA in 1996, placing a four-year moratorium on the application of catch shares in U.S. fisheries, in anticipation of a three-year study by the National Academy of Sciences (NAS) analyzing the effectiveness of the catch share program.125 Although the report ultimately recommended that Congress lift the ban, the debate over catch share programs raged on, leading to a two-year extension of the moratorium in 2000.126

In 1999, the NAS published its findings. The three-year study ultimately concluded that:

[Catch shares] should be allowed as an option in fisheries management if a regional council finds them to be warranted by conditions within a particular fishery and appropriate measures are imposed to avoid potential adverse effects. The issues of initial allocation, transferability, and accumulation of shares should be given careful consideration when [catch share] programs are considered and developed by regional councils and reviewed by the Secretary of Commerce.127

Additionally, the NAS study noted several generalized outcomes of catch share programs.128 First, the report concluded that catch share programs significantly reduce the size of the fleet in a catch share managed fishery.129 For example, after IFQs were implemented in Alaska’s halibut and sablefish fisheries, the fleet sizes decreased by forty-two percent and fifty-two percent respectively.130 Consequently, the report noted that the decrease in vessel numbers led to greater profits amongst those remaining in the fishery.131 Second, the report found that longer fishing seasons typically ensued, as the race for fish under a TAC management approach was removed.132 However, the NAS report also found several generalized adverse effects. Notably, the report found that,

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124. HANNESSON, supra note 21, at 147.
126. HANNESSON, supra note 21, at 151.
127. SHARING THE FISH, supra note 10, at 5.
128. Id. at 99.
129. Id.
130. Id.
131. Id.
132. Id.
in addition to decreased employment within the fishing sector, a significant power shift had occurred from deckhands to vessel/permit owners.

E. The Magnuson-Stevens Reauthorization Act of 2006—A Compromised Solution to Catch Share Implementation

Ironically, the congressionally mandated moratorium on catch share programs spurred interest in their development. Likewise, the recommendations by the NAS in 1999 helped to push the issue back onto the congressional stage. The array of House-and-Senate-proposed bills and subcommittee meetings in the period following the moratorium indicate both the politicization of the issue as well as the seriousness with which Congress set about looking for a solution. When Congress began work on the Magnuson-Stevens Reauthorization Act (MSRA) in 2005, the issue of catch shares was front and center. The result is the addition, in section 303A to the MSA, of a set of national guidelines for catch share programs.

From a national perspective, section 303A represents a hard-fought compromise on the catch share debate. Drawing heavily on the recommendations of the NAS and a corresponding report by the U.S. Ocean Commission, section 303A sets forth a voluminous list of guidelines and is meant “to be as comprehensive as possible in

133. The report attributed the cause of the power shift “to the generation and ownership of new economic value reflected in [catch shares] and to the fact that ownership of originally issued [catch shares] is generally concentrated among vessel owners, rather than the crew or processing sectors.” Id. at 103. Put another way, catch share programs allocate fishing privileges only to vessel or permit owners, effectively precluding consideration of a crewman’s historic involvement in the fishery. See id. Thus, vessel/permit owners are allocated a financial stake in the fishery that typically has market value, whereas crewmen are afforded no such consideration. This fact has particular significance when a fishery undergoes consolidation. See id. Conversely, crewmen forced to exit the fishery are provided no such benefit. See id.

134. SETH MACINKO & DANIEL W. BROMLEY, WHO OWNS AMERICA’S FISHERIES? 1 (2002); see also Holland & Wiersma, supra note 5, at 1076.


138. Id.
describing the rules governing the implementation of [catch shares].”

For example, section 303A establishes eligibility restrictions on quota ownership,\textsuperscript{140} provides safeguards for the initial allocation quota,\textsuperscript{141} and places a cap on the total amount of quota an individual or entity may own.\textsuperscript{142} Additionally, section 303A mandates that fishery managers “consider the basic cultural and social framework of the fishery,” while giving particular consideration to the “sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries.”\textsuperscript{143} Thus, in its entirety, section 303A establishes numerous procedural and substantive measures meant to soften the disruptive social and economic effects of catch shares.

Importantly, section 303A still affords the Regional Fishery Management Councils a significant level of deference in the actual design of the catch share program itself.\textsuperscript{144} The allowance for flexibility at the Regional Fishery Management Council level is fundamental to the design and implementation of a successful catch share program.\textsuperscript{145} Both the NAS and the U.S. Commission on Ocean Policy reports emphasize that the needs for each fishery are unique and that a standardized catch share program will not be effective.\textsuperscript{146} Indeed, “an approach that balances the benefits of regional flexibility with the need for a national policy [on catch shares]” was an explicit goal of the legislation.\textsuperscript{147} Thus, section 303A establishes protective measures to ameliorate the negative

\begin{itemize}
\item \textsuperscript{140} 16 U.S.C. § 1853a(c)(1)(D).
\item \textsuperscript{141} Id. § 1853a(c)(5)(A).
\item \textsuperscript{142} Id. § 1853a(c)(5)(D).
\item \textsuperscript{143} Id. § 1853a(c)(5)(B).
\item \textsuperscript{144} Patricia Kurkul, Reg’l Adm’r, NOAA Fisheries Serv., Panel IV: Resource Allocation and the Magnuson-Stevens Act at the Roger Williams University School of Law Symposium: Taking Stock: The Magnuson-Stevens Act Revisited (Nov. 5, 2008) [hereinafter Kurkul Symposium] (recording available at http://streamer.rwu.edu/mediaservices/MarineLaw/Panel4.wmv). Under the MSA, the Regional Fishery Management Councils develop amendments to a fishery’s Fisheries Management Plan (the method by which a catch share program would be implemented). 16 U.S.C. § 1852(h)(1). NOAA may only approve, disapprove, or partially approve such amendments. Id. § 1854(a)(3).
\item \textsuperscript{145} \textit{Sharing the Fish}, supra note 10, at 195; \textit{Ocean Blueprint}, supra note 50, at 290.
\item \textsuperscript{146} \textit{Sharing the Fish}, supra note 10, at 194-95; \textit{Ocean Blueprint}, supra note 50, at 290.
\item \textsuperscript{147} S. REP. NO. 109-229, at 9 (2006).
\end{itemize}
side effects of catch share programs while allowing the Regional Councils the flexibility to adopt a program that incorporates those protective measures.

Yet, from a New England perspective, section 303A significantly hinders that flexibility by creating a referendum requirement specific to the New England Regional Council. The referendum requirement prohibits the New England Regional Council from submitting “a fishery management plan or amendment that creates an individual fishing quota program . . . unless such a system, as ultimately developed, has been approved by more than 2/3 of those voting in a referendum among eligible permit holders.”

The referendum requirement is a bit of a paradox. On the one hand, it reflects the apprehension among New England politicians, fishery managers, and fishermen of the possibility of implementing a catch share program. Citing fears of the economic consequences of consolidation and an end to a “traditional” way of life, particularly for smaller-scale fishermen, representatives from the region expressed hesitation about section 303A’s ability to protect fishermen from the negative effects of catch share programs. Accordingly, it was included to protect those interests from being saddled with an unwanted catch share program. However, given the seemingly inherent controversy surrounding the use of catch share programs and the diverse array of fishing interests represented in the New England groundfish fishery, the prospect of the Council proposing a catch share program that meets the approval of all permit holders is unlikely. Thus, the practical effect of the referendum

149. Id.; see also Schikler, supra note 139, at 923 (noting that the Council will likely be “hamstrung” by the referendum requirement).
150. Schikler, supra note 139, at 923.
151. For example, George LaPointe, Commissioner of the Maine Department of Marine Resources testified:
    As reauthorization has been discussed over the past few years, Maine has been in the somewhat difficult position of providing input on standards for a system that the majority of people in the state hope will never be used to manage our fisheries. There is a fundamental belief that the implementation of [catch shares], or ITQs as they were previously known, would mean the end of the traditional character of the New England fleet. Under the traditional ITQ structure, corporate consolidation of the fisheries seemed an inevitable result.
    Reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act: Hearing Before the S. Comm. on Commerce, Sci. & Transp., 109th Cong. 15 (2005) (statement of George LaPointe, Comm’r, Maine Department of Marine Resources); see also Blount Statement, supra note 19.
152. Schikler, supra note 139, at 924-25.
requirement is to either exclude catch shares as an option or to bind the Council into developing a catch share program outside of the section 303A requirements.

F. The Amendment 16 Process

In 2006, the Council began drafting Amendment 16 to the Northeast Multispecies FMP. By that time, the legal framework and political culture surrounding fisheries management had shifted dramatically. While the plethora of amendments and framework adjustments that preceded Amendment 16 occurred in a climate of legislative indifference or opposition toward catch shares, Congress had implicitly, if not explicitly, signaled its support for catch shares through section 303A.153 On a national level, the establishment of guidelines for catch share programs had tilted the political scales in favor of such programs.154 Moreover, for the first time, Congress had included amendments to the MSA that mandate the implementation of TACs and impose strict deadlines to end overfishing.155 Lastly, there was at least a semblance of agreement between fisheries managers and fishermen that the status quo was not working for the New England groundfish fishery.156

From the outset, the Council faced a tough mandate to end historic overfishing. Revisions were necessary under Amendment 13 in order to meet specific biological benchmarks for groundfish stocks by 2009.157 The revisions required were severe. Because eleven groundfish stocks were classified as “subject to overfishing” and eleven stocks were “overfished,” the Council was required to “adopt rebuilding programs” that addressed those stocks and “revise management measures necessary to end overfishing, rebuild overfished groundfish stocks, and mitigate the adverse economic impacts of increased effort controls based upon the results of [recent stock assessments].”158 In addition, new amendments to the MSA, including the requirement that annual catch limits (TACs) and

154. See MACINKO & WHITMORE, supra note 8, at 17 (noting the increase in support for catch shares from politicians and environmental advocacy organizations).
156. MACINKO & WHITMORE, supra note 8, at 20.
158. Id.
accountability measures for each overfished stock be implemented by 2010, imposed additional mandates on the Council.159

Accordingly, both Council members and fishermen were aware that Amendment 16 would lead to further restrictions on effort in the fishery.160 Under the prevailing management system, which relied primarily on days-at-sea and other input controls, additional effort reduction would have resulted in a dramatic reduction in the economic viability of the fishery.161 Consequently, “there was increased interest in alternative management approaches that would improve [the] economic viability” of the fishery, while allowing the Council to meet its goals under Amendment 16 and the requirements of the MSRA.162

Limiting the available alternative approaches, however, was the requirement that the Council impose TACs for all overfished stocks by 2010.163 Similar to input controls, stand-alone TACs augment overcapitalization and lead to decreases in the economic sustainability of the fishery. Further, as a result of the rebuilding efforts mandated under the MSRA and Amendment 13, the TAC for the fishery would be too small to support the fleet at current levels of effort under the days-at-sea program.164 Thus, given that “[p]ast experiences with [stand-alone TACs] have shown that they are fraught with problems that are difficult to solve,” the Council did not view a stand-alone TAC as an option.165

Not surprisingly, the Council viewed a catch share alternative as the best solution to maintain economic efficiency in the fishery while meeting the requirements of the MSRA.166 In fact, the groundfish fishery displayed all the classic signs of a fishery ripe for such a program. The fishery was overfished, overcapitalized, and straddled with a complex,
multifarious array of effort controls. Simply put, the fishery was neither biologically nor economically viable.

However, regulatory-imposed deadlines complicated the matter; the Council was required to meet a 2009 deadline to implement “necessary revisions” to the groundfish FMP and a 2010 deadline to implement a TAC on all overfished stocks. Yet, the MSRA also required that the Council, in passing any IFQ or similar catch share program, receive the support of two-thirds of all permit holders through a referendum. Given the historic opposition to catch share programs and the lack of support for one specific catch share option, the Council did not believe it could meet the regulatory deadlines and obtain the necessary votes to pass the referendum.

Indeed, the Amendment 16 process indicates that the Council viewed the referendum as a significant obstacle in meeting the deadlines mandated by the MSRA. For example, while IFQs and a “points system” were discussed as options during 2006 and early 2007, both IFQs and the points system alternatives were removed from consideration within months of the passage of the MSRA. As noted in the 2008 Draft Final Environmental Impact Statement:

The Council decided not to pursue an [IFQ] proposal because recent changes to the [MSA] impose a requirement for an industry referendum before an [IFQ] can be implemented. The Council does not believe there is enough time available to develop a proposal and complete the referendum in time for . . . [the] implementation date.

Thus, by eliminating the range of alternatives the Council could consider, the referendum requirement had a binding effect on the Amendment 16 process.

167. See generally Holland & Wiersma, supra note 5, at 1076-77.
168. See supra Part II.A.-B.
171. Christel, supra note 161.
172. MACINKO & WHITMORE, supra note 8, at 20.
173. The points system involved “tradable biological referenced points rather than pounds of fish.” Id. The Council, based on guidance by NMFS, ultimately concluded that the points system was legally indistinguishable from IFQs and would therefore trigger the referendum requirement. Letter from Patricia Kurkul, Reg’l Adm’r, Northeast Regional Office, NOAA Fisheries, to New England Fisheries Mgmt. Council (June 18, 2008) [hereinafter Kurkul Letter] (on file with author); Christel, supra note 161.
174. AMENDMENT 16 DEIS, supra note 165, at 23.
Such an effect undermines the purpose of the national catch share guidelines. Section 303A is intended to provide the Council with flexibility in its ability to modify existing FMPs through the use of catch share programs. And while section 303A is meant to establish boundaries for the Council, nothing in the MSRA or the bill’s legislative history indicates that Congress meant for the section’s requirements to be outcome-determinative on the Council’s process. Yet, analysis of the Amendment 16 process reveals that, somewhat paradoxically, the referendum did become outcome-determinative. By inserting the referendum requirement into section 303A, Congress was attempting to protect New England fishermen from being forced into an unwanted catch share program. However, the combined effect of the MSRA’s mandated annual catch limits, the deadlines imposed by Amendment 13, and the referendum requirement was to limit the range of alternatives that the Council could consider.

As a result, members of Council, and thus fishermen, were faced with a stark alternative: maintain the status quo or develop a catch share program that is exempt from the referendum requirement.

III. THE SECTOR PROGRAM: AN INNOVATIVE OR IMPERFECT SOLUTION?

The Council’s response to the bind created by the referendum requirement and mandatory deadlines was to create two management regimes for the New England groundfish fishery: a status quo, input-based fishery, and a voluntary catch share alternative—sector allocation—not subject to the referendum requirement or the national guidelines under section 303A. This section analyzes the details of the two management alternatives and explains why the sector program is an imperfect solution to a confounding problem.

A. The No-Alternative Alternative—Sector Allocation and the “Common Pool”

1. Sectors

Simply put, sectors are a form of group fishing quota, as opposed to individual fishing quota. The sector program allocates a percentage of the fishery’s TAC to individual sectors. Each sector is made up of...
fishermen who have voluntarily entered into a contract with one another.\textsuperscript{177} Individual fishermen are allotted a catch history; in turn, the sector’s TAC is the aggregate of each sector member’s catch history.\textsuperscript{178} To that end, sectors are self-selecting, self-forming, and, to a certain extent, self-governing.\textsuperscript{179} Each sector retains the right to choose its members.\textsuperscript{180} Likewise, the decision to join a sector is that of the individual fishermen; sector membership is not required under Amendment 16.\textsuperscript{181} Once a permit holder enters a sector, the permit holder and the sector must come to a contractual agreement as to the permit holder’s share of the sector’s TAC.\textsuperscript{182} This is a distinctive feature of the sector program—without membership, sectors have no allocation of the annual catch limit; conversely, without joining a sector, a fishermen’s catch history is worthless.\textsuperscript{183} Thus, there is a symbiotic relationship between the sector and the permit holder. An additional distinguishing factor between sector program and traditional catch share programs is the presence of joint and several liability for regulatory infractions (e.g., if one member exceeds the sector’s TAC, all sector members must cease fishing).\textsuperscript{184}

2. The “Common Pool”

The second alternative for fishermen is known as the “common pool.”\textsuperscript{185} Fishermen in the common pool are allowed to harvest the remaining portion of the fishery’s annual catch limit that is not allocated to the sectors.\textsuperscript{186} Unlike the fishermen fishing under the sector program, common pool fishermen fish under a days-at-sea restriction; thus, they

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\textsuperscript{177} Id.

\textsuperscript{178} Id. Generally, an individual’s catch history consists of his or her historical landings from 1996-2006, but this period may vary based on the specific type of permit held. Northeast (NE) Multispecies Fishery; Amendment 16, 75 Fed. Reg. 18,262, 18,276 (Apr. 9, 2010) (to be codified at 50 C.F.R. pt. 648).

\textsuperscript{179} See 50 C.F.R. § 648.2.

\textsuperscript{180} Id.

\textsuperscript{181} Id. at 18,267; see also MACINKO & WHITMORE, supra note 8, at 13.

\textsuperscript{182} MACINKO & WHITMORE, supra note 8, at 12.

\textsuperscript{183} Id.

\textsuperscript{184} Holland & Wiersma, supra note 5, at 1078.


\textsuperscript{186} Id. at 18,268.
are subject to the many problems associated with input controls. For this reason, many fishermen sardonically refer to the common pool as the “cesspool,” and membership in the common pool is significantly lower than that of the sector program.

B. The Legal Basis for Sectors

In approving Amendment 16, the Council, relying on legal advice from NMFS, determined that the sector program did not fall within the section 303A requirements because the program did not meet the legal definition of IFQ or “limited access privilege program” as defined under the MSRA. Understanding the legal rationale for sectors will, in turn, help demonstrate that sectors are not the innovative solution they are touted to be, but, rather, a cleverly crafted program designed to evade the referendum requirement and still comply with legal requirements.

The Council and NMFS’ justification for excluding sectors from section 303A rests on the fact that there is no direct allocation of quota under the sector program. The MSRA defines an IFQ as “a Federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person.” Under the sector program, there is no direct allocation of quota to the permit holder (the fisherman or vessel owner); instead, a catch history is issued to the permit holder, which, in turn, may be pledged towards the sector’s allocation of TAC. Because the sector is a voluntary contractual arrangement between fishermen, “there is no Federal permit issued to the ‘sector’ per se.” Thus, the symbiotic relationship between the sector and the permit holder becomes a crucial distinction in this legal justification. Sectors serve as the “vehicle” for allowing fishermen to receive their allocation of personal catch history;

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187. Id.; see also MACINKO & WHITMORE, supra note 8, at 13.
188. MACINKO & WHITMORE, supra note 8, at 45. Although the precise number is difficult to ascertain, due to inactive permits, it is estimated that more than ninety percent of active groundfish fishermen joined the sector program. Beth Quimby, New Rules, Same Struggle: Staying Afloat, PORTLAND PRESS HERALD, Apr. 3, 2011, http://www.pressherald.com/news/new-rules-same-struggle-staying-afloat_2011-04-03.html.
191. See supra Part III.A.
but, in separating the quota allocation from the permit, sectors remain outside of the definition of IFQ and limited access privilege.  

C. Benefits of the Sector Program

As of May 2011, the sector program will have been in operation for one year. For that reason, it is difficult to know what the long-term effects of the program will be. To be sure, the program in New England has already produced several “on the ground” advantages. From a biological standpoint, the imposition of a TAC on the fishery allows managers to directly control fish mortality.  

And, although the determination of TAC can be a heavily politicized process, thus far the Council has imposed stringent quotas on many of the overfished stocks. Moreover, because sectors are jointly and severally liable for overfishing their quota, sectors and sector fishermen have a strong incentive to remain within their quota limits. Indeed, in the first year of the sector program, no sector exceeded its quota.

Likewise, from a fisherman’s perspective, the sector program provides immediate advantages as well. First and foremost, sectors provide fishermen with the flexibility to “experiment with alternative management approaches and to adjust management with relative ease.” In practice, this means that fishermen are not bound to a strict IFQ-style quota system. Instead, individual sectors may, and in fact do, assign and trade quota in a variety of different ways. One sector, for example, has created a quasi-IFQ system, allowing free trade of quota between members. In contrast, another sector, in Maine, does not individually allocate quota, instead allowing members to competitively fish for that sector’s TAC. Additionally, sectors provide fishermen with many of the advantages of traditional catch share programs, such as more flexibility in the time in which fishermen choose to harvest their allotted catch, greater marketing opportunities, higher market prices, and, in turn, a better economic return from the fishery.

194. See supra Part II.C.
195. Quimby, supra note 188.
196. Id.
197. Holland & Wiersma, supra note 5, at 1079.
199. Id.
200. Id.
201. Holland & Wiersma, supra note 5, at 1080; Quimby, supra note 188.
D. Criticism of the Sector Program

Although at first glance the sector program seems to be an innovative solution to a difficult problem—ending overfishing in the groundfish fishery while providing the flexibility to appease a wide-range of participants and meet strenuous legal requirements—sectors remain an imperfect response for two major reasons. First, the sector program has no significant safeguards to protect against excessive quota allocation or consolidation. Second, providing fishermen with the option of the common pool leaves them with a Hobson’s choice, and, thus, no alternative to the sector program.

1. Protections Against Excessive Consolidation and Quota Allocation

The primary problem with the sector program is that it contains no cap on quota allocation. As originally proposed, the program limited quota allocation to twenty percent of the fishery’s TAC; however, the final rule contains no cap, allowing for unrestrained accumulation of quota. This raises several issues. As discussed above, the TAC imposed under Amendment 16 was set at a low level. Indeed, much of the push for the sector program was based on the rationale that the fishery could not function at the low levels under the existing regulatory system. Yet, even under the sector program, the low catch limits are likely to be too small to support the current number of fishery participants. Thus, it is widely acknowledged that the sector program will result in accumulation of quota and some degree of consolidation. The major concern, however, is that with the TAC set at such low levels, excessive consolidation will occur, leading to a “lack of diversity in the groundfish fleet.”

203. Id.
205. Id.
206. Id.
207. Id. Although a detailed discussion of the importance of diversity in a fishing fleet is beyond the scope of this Comment, it is important to note that a diverse fishing fleet provides a number of benefits. These benefits include, but are not limited to: economic benefits from a wider-range of economic activities spread throughout a variety of fishing communities; the preservation of cultural heritage and community values; and ecological
Additionally, the cost-sharing framework of the sector program augments the likelihood of excessive consolidation. The costs of maintaining the sector program, like any catch share program, are extensive. These costs primarily include monitoring and enforcement costs and are surprisingly large, particularly in the case of the sector program, which encompasses a wide geographic area. Recognizing the costs associated with catch share programs, Congress, in section 303A, capped NMFS’ ability to shift this burden onto fishermen by including a cost-recovery limit of three percent of the total ex-vessel value of the fishery. The sector program, however, is not subject to a cost-recovery cap and the costs borne by fishermen are estimated to be as high as twenty percent of ex-vessel value. Indeed, under the sector program, fishermen are responsible for funding one hundred percent of the mandatory reporting and monitoring costs. And, although NMFS has agreed to fund some of these costs until 2012, these costs will significantly impact the economically marginal fishermen in the fleet, particularly small-boat operators, a group that Congress explicitly aimed to protect through section 303A.

Perhaps the most troubling issue with the lack of allocation and consolidation safeguards in the sector program is that there is little legal recourse for affected groups. The omission of an allocation cap appears to run afoul of current statutory and regulatory provisions. National Standard Four of the MSRA provides that any allocation of fishing privileges must be “carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.” Similarly, the groundfish FMP mandates that the benefits from diversity of fishing method, location, and target species. Brett Tolley, Policy Advocate, Northwest Atlantic Marine Alliance, Testimony Before the New England Fishery Mgmt. Council on Excessive Fleet Consolidation and the Impact to the Marine Ecosystem 4 (Sept. 30, 2010) (transcript on file with author).

208. Labaree, supra note 198.
209. Id.
211. MACINKO & WHITMORE, supra note 8, at 31. Ex-vessel value refers to the price fishermen receive for their fish.
212. See Northeast (NE) Multispecies Fishery; Amendment 16, 75 Fed. Reg. 18,262, 18,297 (Apr. 9, 2010) (to be codified at 50 C.F.R. pt. 648); see also Holland & Wiersma, supra note 5, at 1080; Quimby, supra note 188.
213. Kurkul Symposium, supra note 144.
216. Id. § 1851(a)(4).
Council and NMFS maintain fleet diversity. However, because of the way that the Council bifurcated the quota and permit ownership, National Standard Four does not apply. Similar to the justification made to avoid the referendum requirement, NMFS has stated that because the quota allocation is not made directly to the permit holder, no allocation of fishing privileges has been made, as required under National Standard Four. Further, NMFS justified the lack of allocation cap on the basis that consolidation does not amount to “compromising the diversity of the fleet” per se. That said, given that “sectors are primarily formed to realize efficiencies . . . out of consolidation or redistribution of sector vessel effort,” it is difficult to imagine a scenario where intense allocation of quota does not compromise the diversity of the fleet.

2. The Common Pool Alternative

Much of the justification for sectors is based on the voluntary nature of the program. Sector proponents note that rather than forcing an unwanted catch share program on the fishery, the Council is providing fishermen with an alternative; thus, proponents tout this distinctive feature as an innovative way to reconcile the benefits of catch shares with divergent individual and community values. To be sure, by the letter of the law, sectors are voluntary. Individual fishermen choose whether or not to join the sector program; if they do not want to participate in the program, they may fish in the common pool, subject to the existing days-at-sea regulatory framework.

In practice, however, the common pool alternative exists as such in name only. The low catch limits set under Amendment 16 provide a dramatic reduction in TAC and the deleterious effects of a combined input/output control management system are well known among New England fishermen. The fact that nearly ninety percent of active groundfish fishermen joined the sector program is indicative of this

218. Id.
219. Id.
220. Id. at 18,296.
221. AMENDMENT 16 DEIS, supra note 167, at 124.
222. See, e.g., ONE LAST CHANCE, supra note 5, at 17-18.
223. Id.
224. Id.
226. See supra Part II.A-B.
sentiment. Thus, regardless of the legal niceties of Amendment 16, the practical effect of the sector program is to implement a mandatory catch share regime on the fishery.

IV. RECOMMENDATIONS

In light of this Comment’s criticisms of the sector program, this Part sets forth recommendations on how to improve both the current sector program and the national guidelines for catch shares under the MSRA.

A. Fixing the Sector Program

The sector program was a carefully constructed solution to a complex set of legal requirements and regulatory deadlines. Certainly, the sector program has elicited some immediate benefits and provides a unique framework from which to move forward. However, the lack of anti-consolidation measures leaves the diversity of the groundfish fishery at risk and increases the likelihood of the fishery realizing exacting social and economic costs as a result. The lack of protective measures within the sector program is inapposite with the express intent of Congress, expressed in section 303A of the MSRA, to establish such measures. Moreover, protecting the diversity of the fishery is mandated by the current FMP and is important to the economic, biologic, and cultural survival of the fishery. Fortunately, the solution is not difficult: the Council should amend the groundfish FMP to include caps on quota allocation and impose a limit on cost-recovery. Doing so will temper the pace of consolidation and allow for a more diverse fishery.

B. Improving Section 303A

1. Repealing the Referendum Requirement

Congress enacted section 303A with the specific intent of protecting the interests of fishermen and fishing communities from the adverse social and economic effects of catch share programs. However, the New England referendum requirement—a provision enacted to quell the fears of the most ardent catch share opponents, New England

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227. See Quimby, supra note 188.
228. See supra Part III.C.
fishermen—produced an outcome contrary to congressional intent. As demonstrated by the Amendment 16 process, the referendum requirement steered the Council towards a catch share program that provided decidedly less protection to fishermen.

For that reason, the outcome of the Amendment 16 process has important implications for other New England fisheries. While the groundfish fishery is the first major New England fishery to adopt a catch share program, it is unlikely to be the last. Thus, Congress should repeal the referendum requirement under section 303A. Doing so will afford the Council the flexibility to enact a catch share program that best suits the fishery at hand while ensuring the protective benefits of section 303A. The Amendment 16 process has demonstrated that the desired result of the referendum—protection of the interests of stakeholders in the fishery—will not be the final outcome. Instead, the referendum requirement undermines the broader purpose of section 303A.

2. Broadening the Scope of Section 303A

At the national level the Amendment 16 process raises an interesting question: was the bind placed on the Council—a bind caused by a combination of regulatory imposed deadlines, historic overfishing, and a New England specific referendum requirement—a unique circumstance? That is, will the circumstances that befell the New England Council reappear in the future? The question is a compelling one, and one that is difficult to predict. On the other hand, it is possible to look at what sort of precedent the Amendment 16 process will set for future Regional Fishery Management Councils, and that precedent is a dangerous one.

Congress enacted section 303A to balance the benefits of catch share programs with the reoccurring negative socioeconomic impacts. The sector program is unquestionably a catch share. Quota is allocated to groups of fishermen, who are then able to fish, buy, and sell that quota. Yet, by the simple fact that the quota and permit are separated—as a matter of law but not practice—the sector program is not subject to the protective measures of section 303A. Thus, sectors establish a precedent of evading hard-fought statutory requirements through the use of clever legal construction. Therefore, Congress should broaden the definition of limited access privilege program and IFQ to include quota that is allocated to groups of permit-holders, such as sectors.
V. CONCLUSION

Fisheries management is evolving and the use of market-based management approaches will continue to play a significant role in that development. As a result, the debate over catch share programs, and how to mitigate their potential downsides, is likely to continue. The issues are complex and there appears to be no easy answer. Sectors have been offered as an innovative solution—an attempt to ameliorate the socioeconomic ills that often accompany market-based management programs by shifting much of the decision-making authority from the government onto the fishermen. A closer inspection of the sector program, however, reveals that sectors are an inadequate answer to a complicated question. In crafting the sector program, the Council devolved too much authority to the sectors, leaving the fishery vulnerable to excessive allocation of quota and consolidation.

Yet the sector program can still prove instructive. Congress can view the Amendment 16 process as a signal that their efforts to create a national set of guidelines for catch share programs is incomplete. By broadening the scope of section 303A, Congress can ensure that all catch share programs are subject to the protective safeguards of the MSRA. Likewise, by removing the referendum requirement from section 303A, Congress can eliminate the perverse incentive created by the provision, and force the Council to comply with the national guidelines.