

The Second Commons: Rethinking Fisheries Reform for the Political Market

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Abstract

Many of the failures of U.S. fisheries management are ascribed to the problem of imperfect representation, occasionally referred to as ‘regulatory capture.’ Described in terms of the outsized influence the fishing industry has over regulators, this framing of the problem has wide appeal and some empirical support. Adding credence to the diagnoses is the undeniable dominance of fishing industry representatives on the regional fishery management councils, the primary decision making organs within the U.S. fisheries management system. Despite its widespread acceptance, this essay draws on a pair of linked phenomena rooted in common pool resource theory and political economy to demonstrate why the notion of imperfect representation has serious limitations as an organizing principle for fishery reform efforts. The first phenomenon is the “Tragedy of the Commons” (TOC), a perverse set of economic incentives that trap individuals into patterns of unsustainable resource exploitation. Less well known, but equally important, is the phenomenon referred to here as “the second commons”, a term that describes the ability of interest groups to obtain unique political treatment through a series of market-like transactions with elected and appointed officials. Using the historical analogue of public lands ranching, this essay argues that the TOC incentive structure will drive fishing groups into the second commons in search of the policy treatment needed to continue overfishing regardless of the composition of the councils, and that these groups will very often be successful. While the second commons cannot be controlled by a single group, this essay argues that it is possible to reform fisheries such that the economic pathologies associated with the TOC and the associated need for industry groups to secure unsustainable policy treatment are reduced. This approach, I contend, will lead to more successful and durable outcomes than attempts to build more “representative” councils.

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I. INTRODUCTION

*“The notion of complete representativeness is an illusion, a version of nirvana.”*¹

The notion of ‘complete representativeness’ has gained wide currency in legal, policy and scientific circles. It has been one of the signature themes in the field of environmental policy for decades, where the idea has generally been translated into aspirations for more collaborative and inclusive natural resource management schemes not dominated by any industry or interest group.² Nowhere is this more evident than in the context of the debate over fisheries, where a group of politicians, academics, and activists have expended an enormous amount of intellectual energy seeking to define and effect a more ‘complete representativeness’ for the systems used to manage these resources.³ In the U.S., this notion has

¹ Louis L. Jaffe, *The Right to Judicial Review I*, 71 HARV. L. REV. 401, 405 (1958).

² See e.g., Tanya Hayes & Elinor Ostrom, *Conserving the World’s Forests: Are Protected Areas the Only Way?*, 38 IND. L. REV. 595 (2005) (arguing generally that traditional forest conservation schemes are improved by participation from affected residents); Nicole D. Peterson et al., *Participatory Processes and Climate Forecast Use: Socio-cultural Context, Discussion, and Consensus*, 2 CLIMATE & DEV. 14 (2010) (discussing the interaction of social context and participatory processes in the use of climate forecast data); Jules Pretty, *Social Capital and the Collective Management of Resources*, 302 SCIENCE 1914 (2003) (“Collective resource management programs that seek to build trust, develop new norms, and help form groups have become increasingly common.”); David J. Sousa & Christopher McGrory Klyza, *New Directions in Environmental Policy Making: An Emerging Collaborative Regime or Reinventing Interest Group Liberalism?*, 47 NAT. RESOURCES J. 378, 382 (Spring 2007) (“Policy makers have sought to integrate private interests in the policymaking process. . .”).

³ See e.g., Rainer Froese, *Fishery Reform Slips Through the Net*, 475 NATURE 7 (2011) (arguing that the problem with fisheries management is the tendency of civil servants to “believe it is their job to protect the rights of the national fishing sector”); Niki Pace, *Ecosystem-Based Management Under the Magnuson-Stevens Act: Managing*

led some fishery reform advocates to argue that “the overwhelming dominance of extractive interests in participatory decision making” processes established by the Magnuson Stevens Fishery Conservation and Management Act (FCMA) has turned U.S. fisheries management, and especially the regional fishery management councils (‘councils’), into little more than an appendage of the commercial fishing industry, rendering them unable to care for the resources entrusted to them.⁴ One observer, alluding to the disproportionate power of the fishing industry on the councils has labeled the situation a “political tragedy of the commons”, asserting that it is unsurprising that “fishery management councils have resisted taking effective measures to prevent or cure overfishing.”⁵ For these individuals, imperfect representation in fisheries management is something like the story of original sin. It is the rationale for all that is wrong with the world today, an explanation for the loss of bureaucratic paradise.

These arguments are not without merit.⁶ Representatives of the commercial and recreational fishing industries occupy a statistically dominant position on the councils.⁷ Further, these industry-

the Competing Interests of the Gulf of Mexico Red Snapper and Shrimp Fisheries, 2 SEA GRANT L. & POL’Y J., Winter 2009/2010, at 1, 28 (arguing, among other things, that to “improve the role of science, regional councils must reduce the influence of fishery stakeholders while heightening the role of scientists in management decisions”); Scott Matulich et al., *Policy Formulation Versus Policy Implementation Under the Magnuson-Stevens Fishery Conservation and Management Act: Insight from the North Pacific Crab Rationalization*, 34 B.C. ENVTL. AFF. L. REV. 239, 251 (2007) (showing via the legislative record of the debates over the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act that legislators were concerned that regional fishery management councils were captured by the fishing industry); Josh Eagle, *A Window into the Regulated Commons: The Takings Clause, Investment Security, and Sustainability*, 34 ECOLOGY L.Q. 619, 649-50 (2007) (noting that “the presence of industry representatives on the councils increases the likelihood that the councils will be sympathetic to the financial concerns of fishermen.”); Nicola Kieves, *Crisis at Sea: Strengthening Government Regulation to Save Marine Fisheries*, 89 MINN L. REV. 1876, 1895-97 (2005) (arguing that the failure of the councils is the largely result of the disproportionate influence of “special interests” on the boards); Daniel Pauly et al., *Global Trends in World Fisheries: Impacts on Marine Ecosystems and Food Security*, 360 PHIL. TRANSACTION ROYAL SOC’Y B: BIOLOGICAL SCI. 5, 6 (2005) (arguing that regulatory agencies must free themselves “from their subservient relationship with the fishing industry”); Thomas A. Okey, *Membership of the Eight Regional Fishery Management Councils in the United States: Are the Special Interests Over-Represented?*, 27 MAR. POL’Y 193 (2003) (demonstrating that the special interests are, in fact, over-represented on the regional fishery management councils); Christopher J. Carr & Harry N. Scheiber, *Dealing with a Resource Crisis: Regulatory Regimes for Managing the World’s Marine Fisheries*, 21 STAN. ENVTL. L.J. 45, 58 (2002) (pointing out that “the structure of the U.S. regional fishery management councils. . . is designed to give industry a direct or indirect hand in decision making”); Knut H. Mikalsen & Svein Jentoft, *From User-Group to Stakeholders? The Public Interest in the Fisheries Management*, 25 MARINE POL’Y 281, 282 (2001) (seeking to define who “has a legitimate stake in the management of living marine resources and therefore should have a say when decisions are made and enforced”).

⁴ Okey, *supra* note 3, at 193.

⁵ David Dana, *Overcoming the Political Tragedy of the Commons: Lessons Learned from the Reauthorization of the Magnuson Act*, 24 ECOLOGY L.Q. 833, 842 (1997).

⁶ A recent study found statistical evidence of the influence of industry on the councils by analyzing the voting records of state and federally appointed members. See Craig Thomas et al., *Special Interest Capture of Regulatory Agencies: A Ten-Year Analysis of Voting Behavior on Regional Fishery Management Councils*, 38 POL’Y STUD. J. 447 (2010). Another study empirically demonstrated the reality of “regulatory overfishing” by showing that the Gulf of Mexico Regional Fishery Management Council consistently set catch levels for the king mackerel fishery at the upper end of, or beyond, the range of recommendations given by scientific advisors. See Josh Eagle & Barton H. Thompson, *Answering Lord Perry’s Question: Dissecting Regulatory Overfishing*, 46 OCEAN & COASTAL MGMT. 649, 654 (2003).

⁷ JOSH EAGLE ET AL., *TAKING STOCK OF THE REGIONAL FISHERY MANAGEMENT COUNCILS* (2003). See also Okey, *supra* note 3, at 197. Additionally, the membership of all the councils and the affiliation of all the members is readily available via council websites.

dominated councils have presided over years of falling landings⁸ and a series of disastrous fishery collapses for which they must account.⁹ The problem with the focus on imperfect representation, however, is that it tends to fix an undue amount of attention on the superficial issues of the form and process of fisheries management, while discouraging more meaningful discussions of the economic incentives and political dynamics that hamper efforts at real reform. With dismayingly frequency, academics and activists alike seem content to address overfishing by simply advocating for a better bureaucracy, one that includes more of the environmentally enlightened, “marine ecologists, natural resource managers... and others more broadly representative of the public’s interest.”¹⁰

This essay will argue that efforts to reform fisheries management in the U.S. should not be focused on the problem of imperfect representation, but rather should be consciously organized around two mutually reinforcing phenomena rooted in common pool resource theory and the political economy. The first phenomenon is the well-known and oft-discussed tragedy of the commons (TOC).¹¹ In the TOC narrative, individuals exploit a common pool resource at unsustainable rates because they calculate that the gains from overharvesting will accrue to them personally while future losses associated with reduced resource availability will be diffused evenly among all other users. The second phenomenon, less recognized but equally important, is the phenomenon of the political market.¹² In the political market, rent-seeking industry groups incited by the dynamics of the TOC demand permissive regulation from government actors who supply that regulation in return for political support.¹³ As with the TOC, political

⁸ Landings hit an all-time high of 4.75 million metric tons in 1994. They have been in a gradual decline ever since. In 2010 industry landings were 3.74 million metric tons. See *Annual Commercial Landing Statistics*, NAT’L MARINE FISHERIES SERV., http://www.st.nmfs.noaa.gov/st1/commercial/landings/annual_landings.html (last visited Aug. 12, 2012) [hereinafter *Nat’l Marine Fisheries Serv. Statistics*].

⁹ New England groundfish is the most famous example of the sort of fisheries collapse that has occurred under a council’s watch. In the 10 years between 1983 and 1993, there was a “continuous and serious decline in the groundfish catch: cod landings declined by 55%, haddock by 94%, and yellowtail flounder by 89%.” T. Hennessey & M. Healy, *Ludwig’s Ratchet and the Collapse of New England Groundfish Stocks*, 28 COASTAL MGMT 187, 188 (2000). Other, less famous fisheries have suffered similarly dramatic stock reductions under the supervision of the councils. In the 1980s the red snapper catch in the Gulf of Mexico dropped by 60%. C. Phillip Goodyear & Patricia L. Phares, *Status of Red Snapper Stocks of the Gulf of Mexico – Report for 1990*, (NMFS 1990) (cited in Pace, *supra* note 3, at 18). See also *Stock Assessment Report of SEDAR 7, Gulf of Mexico Red Snapper*, SE. DATA, ASSESSMENT, AND REV. 2 (2005), http://www.sefsc.noaa.gov/sedar/download/S7SAR_FINALreduce.pdf?id=DOCUMENT (describing the dramatic decline in Red Snapper fisheries in the Gulf of Mexico and the subsequent struggle to rebuild them). In 2001, west coast groundfishers landed 214 metric tons of rockfish, a fraction of the 11,000 metric tons per year that were landed in the 1970s. PEW OCEANS COMM’N, AMERICA’S LIVING OCEANS, CHARTING A COURSE FOR SEA CHANGE, A REPORT TO THE NATION, RECOMMENDATIONS FOR A NEW OCEAN POLICY 36 (2003). More generally, the most recent NOAA estimates indicate that there are currently 36 stocks in U.S. water subject to overfishing and 45 stocks that are overfished, although the general trend appears to be improving. See NAT’L MARINE FISHERIES SERV., STATUS OF STOCKS, REPORT ON THE STATUS OF U.S. FISHERIES FOR 2011 8, 9 (2012) [hereinafter NATL. MARINE FISHERIES SERV. STATUS]. See also Andrew A. Rosenberg et al., *Rebuilding U.S. Fisheries: Progress and Problems*, 4 FRONTIERS IN ECOLOGY 303 (2006) (describing the overfished state of U.S. fisheries and the slow pace of rebuilding those fisheries); Ray Hilborn et al., *Institutions, Incentives and the Future of Fisheries*, 360 PHIL. TRANSACTION ROYAL SOC’Y B: BIOLOGICAL SCI, 47, 49-51 (2005) (detailing a series of recent U.S. fishery management failures including west coast trawl fisheries, west coast abalone fisheries, and New England groundfisheries).

¹⁰ Donna R. Christie, *Living Marine Resources Management: A Proposal for Integration of United States Management Regimes*, 34 ENVTL. L. 107, 154 (2004).

¹¹ Garret Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

¹² See Nathaniel O. Keohane et al., *The Choice of Regulatory Instruments in Environmental Policy*. 22 HARV. ENVTL. L. REV. 313 (1998) (developing the metaphor of the political market).

¹³ *Id.*

markets are enabled by the fact that the benefits of lobbied-for regulation tend to flow directly to industry, while the costs are spread among the general public so thinly that they are difficult to detect.¹⁴ The argument presented here will resolve itself by suggesting that the political market is itself a sort of second commons and a more-or-less permanent feature of a constitutional republic. This insight leads to the conclusion that the most durable solutions to the problem of overfishing are therefore not to be found in the reforms that flow from process-based theories like the idea of ‘complete representativeness’ because these reforms do little to alter the dynamics of either the TOC or the political market. Instead, this essay will argue that policies that interrupt the logic of the TOC and alter the incentives that drive the fishing industry into the political market are more likely to achieve lasting success.

In Part II of this essay the historical and political circumstances that gave rise to the FCMA and the council system are examined. In Part III, an alternative framework rooted in common pool resource economics and public choice theory is developed in order to help explain why the politics of the fishery are not dependent on the membership of the councils. Part IV will apply the newly developed theoretical framework to a historical analogue of the FCMA, the public range under the Taylor Grazing Act (TGA), in order to further demonstrate the limitations of the idea of complete representativeness. In Part V, the implications of the political market for future reform efforts are contemplated and Part VI of this essay suggests a few ideas for fishery management that might succeed given these implications. Part VII concludes the essay.

II. REGULATORY CAPTURE, OR SOMETHING JUST LIKE IT

The term ‘regulatory capture’ has been used to describe the sort of dysfunction that flows from the problem of imperfect representation on the councils.¹⁵ In a sense, however, the term is inappropriate.¹⁶ The word ‘capture’ implies some sort of forceful action to win possession of some thing, and implicit in this definition is the idea that the captured entity resisted being captured.¹⁷ The councils, however,

¹⁴ See William W. Buzbee, *Recognizing the Regulatory Commons*, 89 IOWA L. REV. 1, 2 (2003). While this essay uses a slightly different set of metaphors to describe the way in which interest groups appropriate regulatory processes to their benefit, many of the ideas in this essay flow from Professor Buzbee’s theory of the “Regulatory Commons,” where social ills remain predictably unaddressed due to incentives created by a “complex, multi-layered political-legal context.”

¹⁵ PEW OCEANS COMM’N., *supra* note 9, at 44 (“A state of affairs in which government regulators...have come to believe that their role is to defend the interests of the regulated community rather than promote the public interest.”). Okey, *supra* note 3, at 194 (“The general pattern in the U.S. is that councils dominated by industry (user group) representatives make the decisions about the exploitation of public (marine fishery) resources. This has been referred to as ‘capture’ of the regulatory or management process by industry.”).

¹⁶ It is also over simple. While the word ‘capture’ is often used by observers as a thumbnail description of the imperfect representation problem affecting fisheries management in the U.S., scholars take a much more nuanced (and occasionally jaundiced) view of the term and the dynamics it is intended to describe. The idea of capture incorporates both political and bureaucratic phenomena and has been linked to a number of different causal mechanisms. ‘Capture’ can occur at the legislative level, when some politician or group of politicians becomes hostage to a group due to the disproportionate power of special interests. It can also occur at the agency level, when agency employees become beholden to some disproportionately powerful part of the regulated constituency. Political scientists, legal theorists, and others have explored the idea in great empirical and theoretical detail and have developed a rich literature on the subject. See e.g. Michael Levine & Jennifer Forrence, *Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis*, 6 J. L. ECON. & ORG. 167, 167-72 (1990) (outlining the historical development of the “capture” theory and its flaws); Jean-Jacques Laffont & Jean Tirole, *The Politics of Government Decision-Making: A Theory of Regulatory Capture*, 106 Q. J. ECONOMICS 1089, 1089-95 (1991) (explaining the evolution of the “capture” theory).

¹⁷ MERRIAM WEBSTER’S COLLEGIATE DICTIONARY 170 (10th ed. 1993).

weren't really won by anyone and they certainly never resisted being taken. They were instead a gift from the framers of the FCMA, intended to protect American fishermen from foreign competition and to encourage the growth of the fishing industry.

A. *Cold War Fishing: The Russians Made Us Do It*

The Russians arrived in the 1960s. In hundreds of new factory ships, they patrolled the hundred fathom curve from George's Bank south to North Carolina's Outer Banks.¹⁸ The fleet was massive. At night it resembled "a large city with thousands and thousands of lights as far as one can see over the horizon."¹⁹ Similar patterns were seen off the coasts of northern California, near Alaska's Kodiak peninsula and in the Barents Sea.²⁰ By the early 1970s, it appeared that American fishermen were suffering from this assault.²¹ Despite an increase in the numerical strength and tonnage of the U.S. fleet, landings had leveled off everywhere.²² Worse, the scheme of international regulation over high-seas fisheries then in place left local fishing boats at a distinct disadvantage to their foreign competitors.²³ The U.S. could enforce internationally agreed upon quota limits, such as those established by the International Commission on the Northwest Atlantic Fisheries, only against U.S. flagged vessels. Foreign fishing vessels outside the jurisdiction of the U.S. Coast Guard could flaunt the rules with impunity.²⁴

Faced with a mounting crisis, and possessed of an easy, foreign, and apparently culpable scapegoat, fishermen began lobbying their political patrons to take action.²⁵ The essence of their suggestion was simple enough – American fish ought to be reserved for Americans. Never averse to solving problems at the expense of the non-voting, the simplicity of this message resonated with Congress.²⁶ In 1976, the FCMA was passed. The law placed a huge swath of ocean under federal control, asserting jurisdiction over all coastal U.S. waters seaward of 3 nautical miles (nm)²⁷ out to 200 nm and established the councils to manage U.S. fisheries via system of catch limits and permits.²⁸ The FCMA also ensured commercial fishing a prominent place in the system by allowing state governors to nominate industry representatives to a large number of council seats.²⁹ According to its sponsors, the new law had the twin virtues of giving the U.S. authority "to manage the foreign fishing effort it has not been able to

¹⁸ MARK H. ZILBERBERG ET AL., A LEGISLATIVE HISTORY OF THE FISHERY CONSERVATION AND MANAGEMENT ACT OF 1976, 1089-90 (U.S. Govt. Printing Off., 1976).

¹⁹ MARGARET E. DEWAR, *INDUSTRY IN TROUBLE* 108 (Temple U. Press 1983).

²⁰ ZILBERBERG ET AL., *supra* note 18 at 1091-92.

²¹ Between 1966 and 1969 American landings dropped below two million tons a year, a floor that had not been broken once in the previous two decades. *See Nat'l Marine Fisheries Serv. Statistics, supra* note 8.

²² *See* U.N. Food & Agric. Org., *The State of World Fisheries and Aquaculture*, 19 (U.N. 2002) [hereinafter *State of World Fisheries and Aquaculture*].

²³ Dewar, *supra* note 19. *See generally* chapter 5, "Foreign Fleets and Questions of Fisheries Control."

²⁴ Dewar, *supra* note 19, at 118-27.

²⁵ 122 CONG. REC. 121 (1976) (describing conversations between Senator Muskie and Maine fisherman regarding the difficulties Maine fishermen faced competing with foreign fishing operations in U.S. waters).

²⁶ In 1975, 135 legislators introduced or co-sponsored bills to extend the fisheries jurisdiction of the United States to 200 nautical miles. Dewar, *supra* note 19, at 136.

²⁷ A nautical mile is equal to 1.151 statutory miles, or 2000 yards. *See* Nathaniel Bowditch, *The American Practical Navigator* (Defense Mapping Agency Hydrographic/Topographic Center 1995).

²⁸ The Magnuson-Stevens Fisheries Conservation and Management Act, 16 U.S.C. §§ 1801–1891(d) (2012).

²⁹ The Magnuson-Stevens Fisheries Conservation and Management Act, 16 U.S.C. §§ 1852(b)(2)(B)–(b)(2)(D) (2012).

control through international agreements...” and of creating “a national management program centered at the regional level.”³⁰

B. *Buy American: Overfishing After the FCMA*

The passage of the FCMA did indeed end the problem of foreign overfishing off the U.S. coast.³¹ It did not end overfishing. With competition largely removed by the FCMA new operators began pouring into the market and established fishermen were encouraged to invest in new and bigger boats.³² As a result the American fleet grew quickly following the passage of the FCMA, adding more than 5,000 vessels before 1980.³³ Concurrent with the growth of the fleet, annual landings rose from approximately 2.5 million metric tons (Mt) in 1976 to 4.75 Mt by the mid 1990s.³⁴

The party couldn’t last. By the mid 1990s, the overfishing that scientists had been warning of became obvious. Landings began to decline everywhere³⁵ and several important fisheries including New England groundfish³⁶, Gulf of Mexico snapper,³⁷ and West Coast rockfish, collapsed completely.³⁸ Scientists began to discuss potential problems such as “fishing down the food web” and biodiversity loss as fishermen shifted to non-traditional species in order to replace those fished out of commercial existence.³⁹

As these failures began to pile up, the attacks on U.S. fisheries policy were joined in earnest. The councils in particular became a lightning rod for criticism, much of which coalesced around the idea of imperfect representation. As early as 1977 academics began pointing out that commercial fishing industry representatives dominated the councils and wielded a disproportionate amount of influence.⁴⁰ This state of affairs, the criticism continued, ensured that councils would always make industry-friendly decisions, “that are not biologically based but instead attempt to satisfy all those who want to fish.”⁴¹ The critics had forgotten, though, that this was exactly what the councils were intended to do – “satisfy all those who wanted to fish.”

³⁰ 122 CONG. REC. 115 (1976).

³¹ See Andrea Dell’Apa et al., *The Magnuson-Stevens Act (1976) and Its Reauthorizations: Failure or Success for the Implementation of Fishery Sustainability and Management in the U.S.*, 36 MAR. POL. 673, 675 (2011) (“The main purpose of the Act was to exclude foreign fishing fleets within the U.S. EEZ, and it is widely recognized that the Act has accomplished this goal.”).

³² *Id.* at 675 (“Overcapitalization has led to increase competition among American fishers, who simply substituted foreign fishers harvesting the finite stock.”); See also Dewey, *supra* note 19, at 149.

³³ *State of World Fisheries and Aquaculture*, *supra* note 22, at 19.

³⁴ *Nat’l Marine Fisheries Serv. Statistics*, *supra* note 8.

³⁵ *Nat’l Marine Fisheries Serv. Statistics*, *supra* note 8; See also *State of World Fisheries and Aquaculture*, *supra* note 22, at 11-13.

³⁶ Hennessey & Healy, *supra* note 9.

³⁷ Goodyear & Phares, *supra* note 9.

³⁸ PEW OCEANS COMM’N, *supra* note 9, at 36. Hilborn, *supra* note 9, at 50.

³⁹ PEW OCEANS COMM’N, *supra* note 9, at 40-43. The seminal article on the phenomenon of fishing down food webs was published in 1998. See Daniel Pauly et al., *Fishing Down Marine Food Webs*, 279 SCIENCE 860 (1998). There has lately, however, been some controversy over the “Mean Trophic Level” (MTL) indicator used to measure the phenomenon. A recent high profile study in the journal *Nature* has called the MTL metric into question, and indicated that the pattern of serial depletion implied by the idea of “fishing down the food web” does not have a great deal of empirical support. Instead, the authors suggest that fishing is intensifying across all levels of marine ecosystems. See Trevor A. Branch et al., *The Trophic Fingerprint of Marine Fisheries*, 468 NATURE 431 (2010).

⁴⁰ Guilio Pontecorvo, *Fishery Management and the General Welfare: Implications of the New Structure*, 52 WASH. L. REV. 641 (1977).

⁴¹ MICHAEL J. BEAN & MELANI J. ROWLAND, *THE EVOLUTION OF NATIONAL WILDLIFE LAW* 192 (3d ed. 1997).

Today, U.S. fisheries are in an imperfect ocean.⁴² NOAA statistics reveal a gradual improvement in management performance over the last decade and a half, but a large number of stocks remain overfished and/or experiencing overfishing, and a number of fisheries remain stubbornly immune to rebuilding efforts.⁴³ Moreover, landings are still languishing well below historical highs.⁴⁴ Regardless of the precise status of the biological health of the resource, many remain convinced that imperfect representation is a major reason for poorly performing fisheries and continue to advocate for reforms designed to liberate the councils from the influence of the fishing industry.⁴⁵ Unfortunately, this is an incomplete analysis. A more complete way of looking at the problem requires an explicit consideration of the incentives created by the combination of common-pool resource exploitation and a democratic society.

III. THE TRAGEDY OF THE COMMONS: PHYSICAL AND POLITICAL

*“Both the theory of democracy and the theory of market economy are products of the Enlightenment, and, for the eighteenth-century philosophers, these two orders of human activity were not to be discussed separately.”*⁴⁶

The fishing industry operates in two distinct, but parallel, commons. The first is physical, driven by climate and oceanography and all the familiar facts of a fisherman’s day to day. The second commons is political, driven by access and power and the opaque realities of representation in a democracy. Both commons are equally important components of the system we call the fishery, and their interaction shapes the universe of possible for reforming that system. Neither of these commons are dependent on the membership of the councils, or even upon their existence.

A. *The First Commons*

The first commons is the fishery itself, a classically common pool resource.⁴⁷ In the language of economics, fish stocks are “rival” meaning that they are subtractable, or diminished by consumption. The

⁴² DANIEL PAULY & JAY MACLEAN, *IN A PERFECT OCEAN, THE STATE OF FISHERIES AND ECOSYSTEMS IN THE NORTH ATLANTIC OCEAN* (2003) (describing the diminished state of North Atlantic fisheries), available at <http://site.ebrary.com/lib/stanford/docDetail.action?docID=10064676>.

⁴³ New England Cod, for example, remains in an overfished condition. See NAT’L MARINE FISHERIES SERV. STATUS, *supra* note 9, at 12.

⁴⁴ *Id.*

⁴⁵ In 2004, Congressman Nick Rahall (D-WV) introduced a bill that would have expanded council membership to include more public representatives (NGOs). *Fisheries Management Reform Act of 2004*, H.R. 4706 (2004). There have not been similarly concrete legislative efforts in recent years, but representational concerns remain central to the case against the U.S. fisheries management system. See, e.g., PEW ENVIRONMENT GROUP, *CONFLICTED COUNCILS: HOW THE NATION’S REGIONAL FISHERY MANAGEMENT COUNCILS THREATEN PRESIDENT BUSH’S COMMITMENT TO STRENGTHEN FISHERIES MANAGEMENT* (2008) (arguing that the presence of financially conflicted fishing industry representatives on the councils was undermining the reforms contained within the 2006 reauthorization of the FCMA), available at http://www.pewtrusts.org/news_room_detail.aspx?id=37372; Pace, *supra* note 3, at 27 (arguing that “[c]ouncils should be diversified to include public interests including conservationists and persons with greater expertise for developing scientific consensus”).

⁴⁶ JAMES BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT* 20 (1990).

⁴⁷ The terminology is tricky here. As the rest of this paragraph explains, this essay uses “common-pool resource” or “the commons” only to describe a resource that is both rival (subtractable) and non-excludable. These resources are not necessarily “open-access”, in the sense that there are literally no rules regarding exploitation, nor are they necessarily “community property” in the sense that there is a well-defined set of norms governing their use. See ELINOR OSTROM, *GOVERNING THE COMMONS*, 20-35 (Cambridge Univ. Press 1990).

more fish I catch, the fewer you can catch. Fish stocks are also usually non-excludable, meaning that they are available for use by individuals without restriction. I cannot stop you from catching fish, even if I would prefer that I caught them myself.

Given these characteristics, and given the fact that fish stocks are an exhaustible resource, one might assume that fishermen could come to some sort of agreement limiting each other's use in a mutually beneficial fashion. Theory suggests otherwise.⁴⁸ Because individual fishermen are economically rational,⁴⁹ they realize that the gain associated with catching additional fish accrues entirely to them, while the associated losses (in the form of a smaller total stock of fish and reduced future landings) are spread amongst a wide group of users.⁵⁰ In other words, for the fisherman each additional landed fish is worth 1 unit of gain in exchange for 1 minus "x" units of loss. Worse, because fish are a non-excludable resource, each fisherman realizes that this logical calculus will be applied by all the other resource users and that forbearance is not likely to be reciprocated, so he races to get his gain before the stock of fish is gone.⁵¹ While none of the individual fishermen desire the destruction of the fishery, the incentives of the commons force them into collectively unsustainable behavior. The result is the TOC, a race to fish that intensifies even as stocks dwindle and catches decrease.⁵²

B. *The Second Commons*

It might be argued that the TOC narrative doesn't apply to U.S. fisheries. After all the basic idea of a commons assumes that there is no effective control on the behavior of resource users.⁵³ The

⁴⁸ See Howard Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. POL. ECON. 124 (1954). This classic paper in the field of fisheries economics illustrated some of the technical aspects of the common property resource problem before Hardin famously brought the idea to a wider audience in his famous *Tragedy of the Commons* paper.

⁴⁹ Implicit in the commons narrative presented here is the assumption that the individuals involved in exploitation of the resource are motivated by financial gain. Absent the presence of a profit motive the tragedy of the commons narrative begins to lose its explanatory force. See David Feeny et al., *Questioning the Assumptions of the "Tragedy of the Commons" Model of Fisheries*, 72 LAND ECON. 187, 189 (1996). This essay presumes that all American ranchers and fishermen are economically motivated.

⁵⁰ Buzbee, *supra* note 14, at 13.

⁵¹ Gordon neatly captured the "race to fish" dynamic by observing that "the fish in sea are valueless to the fisherman, because there is no assurance that they will be there for him tomorrow if they are left behind today." Gordon, *supra* note 48, at 135. In fact, the amount of revenue generated by the decision to harvest in an unsustainable fashion over a short period of time can be so large relative to the amount of revenue that would be generated by sustainable harvesting that it is impossible to construct a financial case for sustainability. If overfishing generates large amounts of free cash that can then be passively invested in such a way that the return on the investment is greater than the profits that could be generated by responsible fishing the economically rational thing to do is overfish. See Daniel Fife & Colin Clark, *Killing the Goose*, in *MANAGING THE COMMONS* (Garret Hardin & John Baden eds., 1977).

⁵² Hardin, *supra* note 11. It is this sense of inevitability, of the helplessness of otherwise decent men and women trapped in behavior that they know to be ultimately destructive, that was the inspiration for the title of Garret Hardin's famous essay. Hardin was drawing on A.N. Whitehead's framing of tragedy as a phenomenon whose essence resided not in unhappiness but in the "solemnity of the remorseless working of things." A.N. Whitehead, *Science and the Modern World*, 10 Mentor, New York (1948).

⁵³ In fact, common property theorists and anthropologists frequently argue that in many situations, the tragedy of the commons narrative is too wooden, too formal, and too detached from observed reality to be of much predictive use. Many societies, they point out, have crafted durable solutions to the problems of common property in ways that don't line up with the theory. See, e.g., Svein Jentoft et al., *Social Theory and Fisheries Co-Management*, 22 MARINE POL'Y 423 (1998); Bonnie McCay & Svein Jentoft, *Market or Community Failure? Critical Perspectives on Common Property Research*, 57 HUMAN ORG. 21 (1998); Ottar Brox, *The Common Property Theory: Epistemological Status and Analytical Utility*, 49 HUMAN ORG. 227 (1990).

installation of the modern architecture of fisheries management, complete with its enormous scientific capacity and regulatory powers, should have ensured that individual fishermen could no longer choose personal gain in exchange for collective harm. The response to this objection lies in public choice theory.⁵⁴

In the political universe described by public choice, interest groups have a disproportionately high ability to obtain favorable policy treatment at both the legislative and administrative levels of government.⁵⁵ This is partly because interest groups are usually small, insular minorities who have low organizational costs, are able to trade political support for desired policy outcomes, and whose rent-seeking behavior tends to result in concentrated benefits for the members. It is also because no one has a very good reason to oppose them.⁵⁶ Because efforts by a single individual to produce some collective good will inevitably result in small (and often intangible) positive effects for the individual, opposing the rent-seeking behavior of special interest groups is an essentially fruitless task. The problem is not that collective goods are not valuable in the aggregate, but that they aren't particularly valuable to individuals on a per capita basis. It is imminently rational, therefore, for individuals to do nothing to obtain collective goods and instead to rely on the efforts of others.⁵⁷ This is the free-rider problem and its application to natural resource management is profound. Not only do small, insular groups like fishermen have powerful incentives to engage in rent-seeking behavior, outsiders have little motivation to counter their efforts.⁵⁸

⁵⁴ Public choice analysis uses the tools in the economist's kit to describe the processes by which non-market decisions are made. DENNIS C. MUELLER, *PUBLIC CHOICE III* 1 (Cambridge U. Press 2003). Familiar collectivist constructs such as the state or the agency are systematically disaggregated and analyzed from the point of view of rational individuals. Mark Sproule-Jones, *Public Choice Theory and Natural Resources: Methodological Explication and Critique*, 76 AM. POLITICAL SCI. REV. 790, 793 (1982). Thus, instead of assuming that participation in the public sphere is motivated by concern for the general welfare of society, public choice theorists begin with the explicit premise that everyone in the public arena is essentially a self-serving utility-maximizer, concerned primarily with acquisition of money, votes, and personally favorable policies. See William Riker & Barry Weingast, *Constitutional Regulation of Legislative Choice: The Political Consequences of Judicial Deference to Legislators*, 74 VA. L. REV. 373, 396 (1988) (describing legislators as essentially self-interested place holders "opportunistically building up an ad hoc majority for the next election"). See generally DANIEL FARBER & PHILIP FRICKEY, *LAW AND PUBLIC CHOICE, A CRITICAL INTRODUCTION* (Univ. Chicago Press 1991).

⁵⁵ Much of the public choice literature surrounding the mechanisms of policy creation focuses on legislatures and the methods used by interest groups to mobilize support from individual law makers See, e.g., Keohane, *supra* note 12, at 318 (treating "Congress, rather than administrative agencies as the locus of instrument choice decisions"). There is also, however, a rich tradition of research focused on agencies (bureaucracies) and the means by which interest groups shape their priorities and decision making processes. See, e.g., David B. Spence & Frank Cross, *A Public Choice Case for the Administrative State*, 89 GEO. L.J. 97 (2000); Laffont & Tirole *supra* note 16. Implicitly (and occasionally explicitly) embedded within this literature is debate about the level of government at which interest group activity is most effective, but regardless, there is strong theoretical and empirical support for the proposition that interest groups exercise disproportionate influence over both legislatures and agencies.

⁵⁶ See MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (Harvard U. Press 1965).

⁵⁷ Olson uses a fair amount of math to illustrate his argument. More accessibly, he analogizes individuals in interest groups to firms in a perfectly competitive market or to taxpayers. "The individual member of the typical large organization is in a position analogous to that of the firm in a perfectly competitive market, or the taxpayer in the state: his own efforts will not have a noticeable effect on the situation of his organization, and he can enjoy any improvements brought about by others whether or not he worked in support of his organization." *Id.* at 16.

⁵⁸ In a small group, the free-rider dynamic is diminished because the each member of the resource receives a large portion of the total benefits associated with the provision of the collective good. *Id.* at 34-35. Moreover, small groups ostensibly have lower transactional costs than large ones, thus making it much easier for these groups to organize and operate.

What public choice theory reveals is that politics is in effect a second commons, one where “regulatory opportunities” can be harvested from the government much as fish are taken from the sea.⁵⁹ In essence, the concentrated-benefit, diffuse-cost dynamic used to explain the apparent success of special interest groups is largely the same as the dynamic that drives the pathologies of the TOC. Just as the revenue associated with overfishing accrues entirely to the individual fisherman, the benefits of lobbying accrue overwhelmingly to the group doing the lobbying. Similarly, just as the consequences of unsustainable fishing are borne by all of society, the costs of lobbied-for regulatory treatment are spread across the whole of a largely oblivious citizenry.

C. *The Political Market*

While the second commons is enabled by the same dynamics that drive the TOC, in practice it operates like a market. In this political market, laws and regulations (rather than goods and services) are the items in trade.⁶⁰ Demand is generated by rent-seeking groups willing to “pay” for the regulatory resource with various forms of political support (donations, votes, organizational assistance, etc...).⁶¹ Supply is provided by government officials with varying levels of ideological pliability.⁶² Because the public is mostly composed of free-riders, the public is mostly absent from the process, allowing interest groups to negotiate directly with their political providers.⁶³

⁵⁹ See Buzbee, *supra* note 14, at 21 (“A regulatory opportunity is itself the resource to be harvested or capitalized upon through the regulatory action, much as fish or pasture are the resources in the usual commons resource tale. Regulatory commons problems pervade any complex, multi-layered setting.”).

⁶⁰ The political market is a well developed metaphorical device within public choice scholarship. See generally Keohane, *supra* note 12 (developing a model of the political market that helps explain instrument choice in environmental legislation); George J. Stigler, *The Economic Theory of Regulation*, 2 BELL. J. ECON. 3 (1971) (proposing that regulation is “acquired by the industry and is designed and operated primarily for its benefit”); Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J. L. & ECON. 211 (1976) (expanding Stigler’s theory to show that regulatory agencies serve a number of economic interests); Buchanan & Tullock, *supra* note 46, at 16-29 (arguing that given certain behavioral assumptions, economic theory can be used to predict and understand collective, non-market, decision making processes); Johnathan R. Macey, *Public Choice: The Theory of the Firm and the Theory of Market Exchange*, 74 CORNELL L. REV. 43 (1988) (applying different microeconomic theories to the study of the production of law); Richard A. Posner, 49 U. CHI. L. REV. 263 (1982) (arguing that laws and regulations are simply a good demanded by groups who derive utility from them).

⁶¹ Keohane, *supra*, note 12 at 325-8 (Focusing on legislators, but a number of different theories exist regarding the motivations of regulators to generate rules favorable to different interest groups. One influential but controversial theory posits, essentially, that administrative agencies are motivated to write regulations that translate into greater authority and larger budgets). See WILLIAM A. NISKANEN, BUREAUCRACY AND REPRESENTATIVE GOVERNMENT (Aldine-Atherton 1971); Andres Blais & Stephane Dion, *Are Bureaucrats Budget Maximizers? The Niskanen Model & Its Critics*, 22 POLITY 655 (1990) Others have posited that agencies are often motivated by the desire simply to remain in existence and thus generate regulations to serve constituencies that will, in return, support them as an ongoing concern; Jonathan R. Macey, *Administrative Agency Obsolescence and Interest Group Formation: A Case Study of the SEC at Sixty*, 913 CARDOZO L. REV. 909, 913-14 (1994).

⁶² Keohane, *supra* note 12, at 325-28. Keohane homogenizes the various types of legislative assistance into units of “effective support.” The idea of effective support takes account of the fact that legislators can do more than vote for a policy. They can also co-sponsor bills, engage in “logrolling” (trading votes in packages), and schedule hearings, all of which may be valuable to a special-interest constituency.

⁶³ See Buzbee, *supra* note 14, at 15 (pointing out that “the temptation to free ride” can “defeat efforts to adopt resource-preserving regulatory strategies.”). Cf. Olson, *supra* note 56, at 16 (explaining the individual’s incentives to free-ride in a very large group).

This is not a normative analysis.⁶⁴ The interest group dominated political market is, at least according to pluralist conceptions of government,⁶⁵ the natural result of the workings of a constitutional republic.⁶⁶ Citizens are afforded the right to petition their representatives for redress and the redress needed is as likely to be economic as it is anything else. The rise of the administrative state has further expanded this dynamic. Agencies, with their quasi-legislative rule making functions are a natural venue for the give and take of interest group politics.⁶⁷ One group wants something, the other wants something else, and the agency must decide who wins and who loses. Barring some revolutionary change in the nature of democratic governance in the U.S., it is not likely that the political market is going anywhere anytime soon.

When viewed through the prism of the political market, ideas for reform based on establishing a more complete representation on the councils seem suddenly thin. As long as fisheries remain a commons (ie. both rival and non-excludable), industry participants will remain incited by the race to fish dynamic and will therefore tend to conclude that policies that restrain harvesting are not in their economic interest. The result will be a continued effort to exploit the political market for the regulatory treatment needed to maintain current harvesting practices, regardless of who is sitting on the councils.

For some, this may be a difficult argument to accept. The operation of a political market beyond the councils can be explained in theory, but for the most part, the councils have dominated the politics of the fishery for last 35 years. Fortunately, one need not accept this argument based solely on theory. There are historical analogues to the FCMA that allow us to see how the system might react if the fishing industry were marginalized from the councils. It turns out the ‘complete representativeness’ story has been told before.

⁶⁴ This essay makes no attempt to describe government as it should be, only as it is. There are those, however, who make the case that interest group pluralism, at least in its purest form, is not a desirable operating system for a democracy, and that a conception of representative politics based on a more “republican” approach (*i.e.* more deliberative and civically minded) will yield a more wise and just government. *See generally* Cass R. Sunstein, *Interest Groups in American Public Law*, 38 STAN. L. REV. 29 (1985).

⁶⁵ Professor Sunstein describes the pluralist view of government as follows:

“Under this view, politics consists of a struggle among interest groups for scarce social resources. Laws are a kind of commodity, subject to the forces of supply and demand. Various groups in society compete for loyalty and support from citizens. Once they are organized and aligned, they exert pressure on political representatives who respond, in a market-like manner, to the pressures thus exerted. The ultimate result is political equilibrium.”

Cass R. Sunstein, *Beyond the Republican Revival*, 97 YALE L.J. 1539, 1542 (1988).

⁶⁶ The recognition of interest groups and their effect on collective decision-making processes are at least as old as the republic. In the Federalist Papers, Madison pointedly observed that “Liberty is to faction what air is to fire, an ailment without which it instantly expires. But it could not be less folly to abolish liberty, which is essential to political life, because it nourishes faction, than it would be to wish the annihilation of air . . .” THE FEDERALIST NO. 10 (James Madison).

⁶⁷ Parallel to the critiques of interest group pluralism, there are those who believe that the rise of the post New-Deal administrative state has had largely negative consequences for the conduct of American democracy. *See* THEODORE LOWI, THE END OF LIBERALISM. THE SECOND REPUBLIC OF THE UNITED STATES (40th Anniversary ed., Norton and Company 2009) In fact, Professor Lowi’s treatment of administrative agencies is one of the early works to discuss agency capture (clientelism). *See also* GRANT MCCONNELL, PRIVATE POWER AND AMERICAN DEMOCRACY (Knopf 1966) Professor McConnell was also one of the earliest and most forceful critics of public lands management practices in the American West and the BLM.

IV. THE WESTERN RANGE REVISITED REVISITED⁶⁸

In the early 1930s, the public range, those “vacant, unappropriated, and unreserved lands”⁶⁹ upon which western ranchers depended, was beset by drought, depression, the steady encroachment of homesteaders and occasionally violent conflict between users.⁷⁰ In an attempt to reverse this trend congress passed the Taylor Grazing Act (TGA).⁷¹ The TGA asserted federal control over public rangelands, provided for the creation of grazing districts, established a system of leasing and permits to control access, and stood-up the Grazing Service, later to become the Bureau of Land Management (BLM) to administer the program.⁷² The TGA also provided for the establishment of “local associations of stockmen,” later known as Grazing Advisory Boards (boards) to help the BLM administer the grazing districts.⁷³ The boards were composed of local ranchers and were responsible for advising BLM managers on the amount of livestock that should be permitted and who should get the permits.⁷⁴ For the most part, the boards were the BLM.⁷⁵

As with the council system under the FCMA, the industry-dominated nature of the boards under the TGA was entirely by design. The TGA’s author, Congressman Edward Taylor, himself a Colorado rancher, wrote the law with the explicit goal of establishing a system of “home rule on the range.”⁷⁶ Unfortunately, the institution of the board system did little to improve the condition of the range⁷⁷ and many westerners came to believe that the public lands actually worsened as a result of the

⁶⁸ For a well-known and controversial critique of western public lands ranching, see generally DEBRA L. DONAHUE, *THE WESTERN RANGE REVISITED* (Univ. Okla. Press 1999).

⁶⁹ WESLEY CALEF, *PRIVATE GRAZING AND PUBLIC LANDS*, 49 (Arno Press 1979).

⁷⁰ Hugh E. Kingery, *The Public Grazing Lands*, 43 *DENV. L.J.* 329, 329 (1966) (“The tradition of the open range—uncontrolled use of the public lands by western livestock men—has meant violence not only between users and would-be users, but violence to the range itself, caused by overgrazing and consequent damaging erosion.”).

⁷¹ KAREN R. MERILL, *PUBLIC LANDS AND POLITICAL MEANING, RANCHERS, THE GOVERNMENT, AND THE LAND BETWEEN THEM* 136-39 (Univ. of Cal. Press 2002) (describing the strains on the western agricultural economy that motivated the passage of the TGA). See also Kingery, *supra* note 70, at 332 (“Continuing range wars and continuing range deterioration provided the impetus for enactment of a federal statute to regulate grazing on the public lands.”).

⁷² Taylor Grazing Act, 43 U.S.C. § 315-315(r) (2012).

⁷³ Taylor Grazing Act, 43 U.S.C. § 315o-1 (2012).

⁷⁴ PHILLIP O. FOSS, *THE ADMINISTRATION OF GRAZING ON THE PUBLIC DOMAIN* 108-16 (Univ. Wash. Press 1960); Todd Olinger, *Public Rangeland Reform: New Prospects for Collaboration and Local Control Using the Resource Advisory Councils*, 69 *U. COLO. L. REV.* 633, 651-53 (1998); Calef, *supra* note 69; Kingery, *supra* note 70, at 33.

⁷⁵ Debra Donahue, *Western Grazing: The Capture of Grass, Ground, and Government*, 35 *ENVTL. L.* 721, 754-55 (2005) (detailing the power that was wielded by the ranching industry via the board system).

⁷⁶ Farrington Carpenter, the Division of Grazing’s first director, was likewise committed to a system that put ranchers in charge of the day-to-day decisions. He reportedly took the director’s job only after he had been assured that he would be able to establish a bottom-up mode of managing the public range. See Olinger, *supra* note 74, at 653.

⁷⁷ The BLM has four classifications for land under management. From best to worst, these classifications are (1) Excellent/Potential Natural Community, (2) Good/Late Seral, (3) Fair/Mid Seral, and (4) Poor/Early Seral. In 1936, just two years after enactment, 1.5 and 14.3% of BLM lands were classified as “excellent” or “good,” respectively, with the rest being classified as “fair” (47.9%) and “poor” (36.3%). In 1966, the percentage of land classified as “excellent” and “good” had increased to only 2.2 and 16.7%, respectively, while the distribution of “fair” (51.6%) and “poor” (29.5%) land was only slightly improved. This was largely because the TGA, as enacted, did nothing to reduce the number of livestock actually on the range. The amount of permitted grazing, in fact, actually rose during the period from 1936 to 1941 and then remained basically steady until the late 1950s. CHRISTOPHER KLYZA, *WHO CONTROLS PUBLIC LANDS* 136 (Univ. of N.C. Press 1996). Note that the initial increase in permitted livestock was not necessarily because more cattle were being put on the land. Grazing districts were still being established years after passage of the TGA, thus some of the increase in permitted grazing was little more than an administrative

TGA and the system it created.⁷⁸ In the 1950s and 1960s, a group of academics and public intellectuals began to give voice to this discontent by publishing pointed critiques of this new system.⁷⁹ Central to their argument was the idea that the western ranching industry had dominated the public range administrative process and instituted a system⁸⁰ that placed far more cattle and sheep on the land than the land could support and returned little in the way of a tangible benefit to the public.⁸¹ For “established stockmen” wrote political scientist Grant McConnell, the system of decentralized management through the boards “secured the benefits of the public lands as though they were privately owned, but largely avoided the costs of private ownership.”⁸²

recognition of grazing already occurring. MARION CLAWSON, *THE FEDERAL LANDS REVISITED* 67 (Resources for the Future 1983).

⁷⁸ *E.g.*, PAUL W. GATES, *HISTORY OF PUBLIC LAND LAW DEVELOPMENT* 631 (Arno Press 1979) (citing the opinion of Kenneth B. Pomeroy, chief forester of the American Forestry Association, who claimed that public grazing land damage accelerated during the 1940s).

⁷⁹ Prominent among the early critics of the TGA system was Bernard Devoto. Devoto was a prominent historian and polemicist, and an early western environmentalist. During the 1940s and 50s, he used his weekly Harper’s column “the Easy Chair” to inveigh against all manner of western land management practices he disliked. He reserved special criticism for the livestock industry, which he referred to in this 1948 essay as “the pressure group”:

“When the Grazing Service began to discharge the further duties Congress had given it, repairing and restoring the damaged range, it was doomed. From 1941 on the pressure group made a sustained attack on it and by 1946 had destroyed it. Cuts in its appropriations reduced it to a skeleton force wholly subservient to the stockgrowers and it became a subsidiary agency of the Bureau of Land Management. Its grazing fees have been fixed at between a fifth and a third of those charged by the Forest Service which in turn are always smaller, sometimes much smaller, than the fees charged on privately owned grazing land. Vast areas of its range are in dreadful shape today.”

BERNARD DEVOTO, *DEVOTO’S WEST: HISTORY, CONSERVATION, AND THE PUBLIC GOOD* 117 (Swallow Press 2005). *See also* WILLIAM VOIGHT, JR., *PUBLIC GRAZING LANDS: USE AND MISUSE BY INDUSTRY AND GOVERNMENT* 101-02 (Rutgers Univ. Press 1960) (describing Devoto’s travels through the west in 1946, and his subsequent writing on western conservation issues).

⁸⁰ In later years observers would coin the term “Welfare Ranching” to describe the system that had grown up during this period. GEORGE WUERHTER & MOLLIE MATTESON, *WELFARE RANCHING, THE SUBSIDIZED DESTRUCTION OF THE AMERICAN WEST* (Island Press 2002).

⁸¹ Devoto, *supra* note 79. *See generally* Foss, *supra* note 74. Foss was broadly critical of public lands administration in general and was one of the early voices arguing that the grazing boards were captured. *See also* Voight, *supra* note 79, at 101-02. Like Foss, Voight was a prominent early critic of the grazing board system. *See also* McConnell, *supra* note 67, 196-245. Professor McConnell was a well-respected University of Chicago political scientist who was one of the early developers of the idea of “interest group liberalism.” He uses the BLM and grazing board system as illustrative of his argument that private interest groups were subverting the practice of American democracy in a largely harmful fashion.

⁸² McConnell, *supra* note 67, at 209. Critics have long argued that one of the ways that public lands ranchers “avoided the costs of private ownership” was by pressuring the BLM to keep their grazing fees artificially low relative to the cost of fodder on private lands. *E.g.*, Devoto, *supra* note 79, at 79 (arguing that low “fees are in effect one of a number of subsidies we pay them”). Public lands ranchers, apparently with some justification, counter that this critique fails to account for the various ways in which public range AUMs are less valuable than those sold on private lands, and that they make many improvements to the public range for which they are not rewarded. *See* Jeffrey LaFrance & Myles Watts, *Public Grazing in the West and “Rangeland Reform ‘94”*, 77 *AM. J. AGR. ECON.* 447, 455 (1995) (demonstrating that the additional services provided on private ranches have significant value, and that the “cost differences between public and private grazing rights are not as large as many may believe”). Regardless of who has the better of the argument, it is undeniable that grazing fees today (\$1.35/AUM) are actually lower than they were 30 years ago (\$2.31/AUM). CAROL HARDY VINCENT, *CONG. RESEARCH SERV., RS21232, GRAZING FEES: OVERVIEW AND ISSUES*, (2012).

In the mid-1960s Congress began to respond to these concerns by passing a series of laws intended to broaden public participation in range management.⁸³ The process began in 1964 with the Public Land Law Review Commission Act, which set up a commission to review the management of all the federally owned lands.⁸⁴ The resulting report was critical of the grazing board system and led in part⁸⁵ to the passage of the Federal Advisory Committee Act (FACA).⁸⁶ FACA established regulations for the use of advisory committees by the federal government⁸⁷ and was partially responsible for the elimination of the grazing boards.⁸⁸ In 1976, the Federal Land Management and Policy Act (FLPMA) was passed into law.⁸⁹ FLPMA enshrined the principle of “multiple use”⁹⁰ into law for the BLM and created “multiple-use advisory boards” with a broader membership intended to help the BLM operationalize that principle.⁹¹ FLPMA also reauthorized the old grazing boards but limited their mandate essentially to advising on the development of allotment management plans.⁹²

In the 1990s, the movement to reform public lands management gained steam again. During the Clinton administration, Secretary of the Interior Bruce Babbitt proposed a package of changes known as “Rangeland Reform ’94.”⁹³ Proposed reforms included raising grazing fees, developing a set of national standards to provide a uniform standard of management for the BLM, eliminating use preferences for current permit holders, and eliminating the district advisory councils (formerly grazing boards) in favor of resource advisory councils (RACs) with a more diverse membership and mandate.⁹⁴

As with previous efforts, the RAC portion of Rangeland Reform ’94 was essentially the product of a continued desire to bring about a more perfect representation in public lands administration.⁹⁵

⁸³ See Michael Blumm, *Public Choice and the Public Lands: Why “Multiple Use” Failed*, 18 HARV. ENVTL. L. REV. 405, 418 (1994) (“Most of the reforms of the 1960s and 1970s pertaining to public lands emphasized increasing public participation in public land management decision-making rather than providing more specific statutory mandates.”).

⁸⁴ 43 U.S.C. §§ 1391-1400 (1964) (omitted from current U.S. Code due to the completion of the commission’s statutorily mandated duties and subsequent termination of the commission).

⁸⁵ PUBLIC LAND LAW COMMISSION, *ONE THIRD OF THE NATION’S LANDS* 289 (Government Printing Office 1970) [hereinafter *ONE THIRD OF THE NATION’S LANDS*] (“One of the chief charges levied against advisory boards is that they tend to be dominated by members representing only one or two limited interests or uses.”); See also Donahue, *supra* note 75, at 761 (describing the how the PLLRC report encouraged passage of FACA).

⁸⁶ Federal Advisory Committee Act, 5 U.S.C. App. 2 §§ 1-16 (2012).

⁸⁷ W. Herbert McHarg, *The Federal Advisory Committee Act: Keeping Interjurisdictional Ecosystem Management Groups Open and Legal*, J. ENERGY NAT. RESOURCES & ENVTL. L. 437, 438-42 (1995).

⁸⁸ Donahue, *supra* note 75, at 761 (describing FACA as part of a wave of legislation in the 1970s that caused the BLM to terminate the board system).

⁸⁹ Federal Land Policy and Management Act, 43 U.S.C. §§ 1701-1787 (2012).

⁹⁰ The core of the FLPMA definition of ‘multiple use’ is “the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people.” *Id.* § 1702(c).

⁹¹ Advisory councils were established to “furnish advice to the Secretary with respect to the land use planning, classification, retention, management, and disposal of the public lands within the area for which the advisory council is established.” *Id.* § 1739(d).

⁹² *Id.* § 1753(a); see also *id.* § 1753(b) (Grazing boards were authorized to “make recommendations to the head of the office involved concerning the development of allotment management plans and the utilization of range-betterment funds.”).

⁹³ Scott Nicoll, *The Death of Rangeland Reform*, 21 J. ENVTL. L. & LITIG. 47, 52-53 (2006); Karl Arruda & Christopher Watson, *The Rise and Fall of Grazing Reform*, 32 LAND & WATER L. REV. 413 (1997).

⁹⁴ Olinger, *supra* note 74, at 657; Nicoll, *id.* at 63-65; Arruda & Watson, *id.* at 428-46.

⁹⁵ Olinger, *supra* note 74, at 665 (stating that environmentalists objected to the old grazing boards because they “had created a closed political system in which only the locally powerful ranching interests and BLM personnel had a voice”); Joseph M. Feller, *Grazing Management on the Public Lands: Opening the Process to Public*

Because ranching interests dominated the process, their power had to be diluted by adding additional user groups.⁹⁶ The logic was explicit. At a town hall meeting in Carson City, Nevada, Secretary Babbitt told a group of concerned Nevada citizens that “the old way of generating plans in a closed shop of BLM employees, the permit holder and local advisory boards dominated by ranchers will have to give way.... Environmentalists, the public and all other stakeholders can be actively involved in planning the use of their land.”⁹⁷

All of these efforts to bring more interests into the process of rangeland management were ultimately successful. The old grazing board system is effectively dead. Today, RACs are empowered only to “develop recommendations for the BLM with respect to the land use planning, classification, retention, management, and disposal of the public lands.”⁹⁸ RAC members are divided evenly between three groups: extractive users, environmental NGOs, and the public at large and most RACs have only two members explicitly representing ranching interests.⁹⁹ Procedural consultation with a wide range of interested groups seems to be the norm.

While more people are involved in managing the range, it isn’t clear that the management is any better. True, the amount of Animal Unit Months (AUMs)¹⁰⁰ issued has gone down, but this is part of a trend that began in the 1960s¹⁰¹ and it is not clear that reform efforts had anything to do with the decline. Public lands ranching exists at the margins of the agricultural universe¹⁰² and modern feedlots have been

Participation, 36 LAND & WATER L. REV. 571 (1991) (writing about methods for forcing the BLM to allow more public participation in its decision making processes pre-Rangeland Reform ’94); Timothy K. Borchers, *Reforming Federal Grazing Law: Will Congress Pass Needed Legislation before the Cows Come Home?*, 13 J. LEGIS. 216, 225-27 (1986) (describing conservationist’s belief that ranchers improperly controlled land use decisions); Arruda & Watson, *supra* note 93, 439-42 (arguing that “[o]ne of the central themes of Rangeland ’94 was to increase public involvement in the management of public lands”).

⁹⁶ Even the federal register placed the pending changes in the context of creating of a more perfect representation. The “increased emphasis by BLM on maintaining or restoring healthy sustainable ecosystems necessitates a more diverse membership” the notice stated. Therefore, the membership of the RACs would be modified to represent a “broad range of interests, experience, and expertise.” *Advanced Notice of Proposed Rulemaking*, 58 Fed. Reg. 43,208, 43,211 (Aug. 13, 1993).

⁹⁷ Jon Christensen, *Bruce Babbitt on Western Land Use: 1993 Is The Year of Decision*, 25(9) HIGH COUNTRY NEWS (1993). The periodical “High Country News” covered the debates over Rangeland Reform ’94 in great detail and many of their articles on the subject are posted in their online archive available at www.hcn.org/issues. See also Bruce Babbitt, *Remarks to The Society of Range Management*, 29 LAND & WATER L. REV. 399 (1994) (discussing how RAC membership would be structured and why).

⁹⁸ Ariz. Resource Advisory Council Charter, U.S. Dept. of the Interior, (Bureau of Land Mgmt 2011), <http://www.blm.gov/pgdata/etc/medialib/blm/az/pdfs/rac.Par.53849.File.dat/charter.pdf>. This language can be found in all RAC charters and is taken directly from FLPMA. See Federal Land Policy and Management Act, *supra* note 89, § 1739(d).

⁹⁹ Resource advisory councils-requirements, 43 C.F.R. § 1784.6-1(c)(1) (2010). Information on RAC membership is available via the BLM website. See Bureau Land Mgmt., *Resource Advisory Councils* (August 15, 2012), available at http://www.blm.gov/wo/st/en/info/resource_advisory.html.

¹⁰⁰ An AUM is defined as “the amount of forage needed for the sustenance of one cow or its equivalent for a period of 1 month.” Grazing Administration—Exclusive of Alaska—Definitions, 43 C.F.R. § 4100.05 (2010).

¹⁰¹ See Clawson, *supra* note 77, at 68, 282 (describing and showing a decline from 12.5 million AUMs to 8.9 million AUMs authorized by BLM between 1960 and 1980, a reduction of approximately 29%). The trend is still downward, but has flattened out in recent years. BLM statistics show that the total number of AUMs issued in 2011 was approximately 8.7 million. See Bureau Land Mgmt., *Public Land Statistics 2011*, 86-7 (Dept. of Interior 2012), available at http://www.blm.gov/public_land_statistics/pls11/pls2011.pdf.

¹⁰² While the BLM does not estimate the number of livestock on the range at any given time, recent estimates place the number of cattle being grazed on the federal lands at less than 2 million head. S.L. Rundle, *The Once and Future Federal Grazing Lands*, 45 WM. & MARY L. REV. 1803, 1816 (1998). Given the trends in AUM issuances by

able to increase output and efficiency in a way that simply cannot be matched on a consistent basis by the public lands rancher.¹⁰³ The reduction in grazing pressure may be as much a reflection of this economic reality as it is of the new, broader group of interests now influencing public rangeland policy.

Nor is it clear that these changes have paid ecological dividends. BLM records do indicate a modest improvement in rangeland health between the mid-1960s and the early 1990s,¹⁰⁴ but this trend correlates largely with the decrease in AUMs over essentially the same period.¹⁰⁵ Since the 1990s, the number of AUMs issued has been more stable and improvement in rangeland health seems to have stalled. Between 1990 (four years before the installation of the RAC system) and 2011, the amount of land classified as “Excellent/Potential Natural Community” increased from 5 to 9%, but all other categories, including “Poor/Early Seral” have remained roughly the same or worsened¹⁰⁶ and a recent study found that 15% of surveyed allotments still do not meet BLM land health standards due to livestock overgrazing.¹⁰⁷ Today, many environmentalists believe that there are still ranchers who are allowed to

the BLM, that number is likely similar today. Bureau Land Mgmt., *supra* note 101. This is a fraction of the more than 30 million head of cattle and calves currently in the U.S. beef cattle herd. Michael Galyean, et al., *The Future of Beef Production in North America*, 1 ANIMAL FRONTIERS 29, 30 (2011). Moreover, there are indications that the majority of public lands ranchers are not ranching as a primary occupation but are mostly wealthy hobbyists. See Raymond B. Wrabley, *Cowboy Capitalism or Welfare Ranching? The Public Lands Grazing Policies of the Bush Administration*, 29 PUB. LAND & RESOURCES L. REV. 85, 98-99 (2008); Joseph M. Feller, *Ride ‘Em Cowboy: A Critical Look at BLM’s Proposed New Grazing Regulations*, 34 ENVTL. L. 1123, 1127 (2004).

¹⁰³ During the 1960s and 1970s feedlots rapidly became the dominant system of beef production in the U.S. and consolidation continues to this day. Today very large feedlots producing tens of thousands of cattle dominate the industry. These operations can take advantage of considerable economies of scale and produce beef very efficiently. See generally ERS Bulletin 43, *The Transformation of U.S. Livestock Agriculture, Scale, Efficiency, and Risks*, (U.S.D.A. 2009). See also Clawson, *supra* note 77, at 71 (“Since 1940, the number of ranches in the West has declined substantially, as has the number of farms in other regions, and from the same basic cause-technological change which enables one person to farm a larger area of cropland or to care for a greater number of livestock.”).

¹⁰⁴ The 1966 BLM assessment listed the following percentages for the 4 major rangeland health categories: 2.2% Excellent, 16.7% Good, 51.6% Fair, and 29.5% Poor. Klyza, *supra* note 77. By 1990 the percentages had improved and were as follows: 5.0% Excellent, 32.0% Good, 36.0% Fair, and 14.0% Poor. See Bureau Land Mgmt., *Annual Rangeland Report Bureauwide Summary, Fiscal Year 1990*, 2 (Dept. Interior 1990) available at http://www.blm.gov/wo/st/en/prog/more/rangeland_management/rangeland_inventory.html This website also contains all of BLM’s rangeland assessment reports from 1989 to 2010.

¹⁰⁵ See Clawson, *supra* note 77, at 68, 282; Bureau Land Mgmt., *supra* note 101.

¹⁰⁶ In 1990, BLM lands were classified as 5% Excellent, 32% Good, 36% Fair, and 14% Poor. Bureau Land Mgmt., *supra* note 104. Twenty years later the percentage of land in the corresponding categories was 9% Potential Natural Community (Excellent) 35% Late Seral (Good), 41% Mid Seral (Fair), and 15% Early Seral (Poor). See Bureau Land Mgmt., *Fiscal Year 2011 Rangeland Inventory Monitoring, and Evaluation Report*, (Dept. Interior 2011), available at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/rangeland.Par.49582.File.dat/Rangeland2011.pdf.

¹⁰⁷ Kari E. Veblen et al., *Range-Wide Assessment of Livestock Grazing Across the Sagebrush Biome: U.S. Geological Survey Open-File Report 2011-1263*, 6 (Dept. Interior 2011). Surprisingly, there are not many studies that consider the impact of grazing on the overall health of the public rangelands. This has recently become a contentious issue. In 2011, the BLM initiated the “rapid ecoregional assessment” (REA) process in an effort to assess regional ecological trends on the public lands. The BLM initially elected not to include grazing disturbances in the list of “change agents” that would be considered as part of this process, claiming, among other things, a lack of appropriate data. Environmental groups were predictably outraged and the BLM has since decided to incorporate livestock grazing into the studies only as a component of total grazing, including grazing by wild animals. See Rocky Barker, *Did BLM Let Politics Trump Science?*, IDAHO STATESMAN (December 1, 2011), <http://www.idahostatesman.com/2011/12/01/1899787/did-blm-let-politics-trump-science.html>; Felicity Barringer, *The Impact of Grazing? Don’t Ask*, N.Y. TIMES (December 1, 2011), <http://green.blogs.nytimes.com/2011/12/01/the-impact-of-grazing-dont-ask>; Emma Maris, *Group Claims Political*

runmore animals than the arid range ecosystems can support and the old evils of invasive species,¹⁰⁸ riparian area destruction¹⁰⁹ and soil erosion¹¹⁰ remain a cause for concern today.

V. LESSONS FOR FISHERIES MANAGEMENT

A. *The Lords of Today*

Despite 50 years of effort designed to bring more voices into the processes of range management, the ranching industry appears today to be in much the same position of influence over public lands policy that it was in 1934.¹¹¹ This is not to say that the reforms of the last 80 years have had no effect on policy or that nothing has changed for the better, but progress has been fitful and for a group of several thousand ranchers in the western U.S., the public lands remain essentially a rent-controlled pasture provided by the federal government.¹¹² Three quarters of a century after the TGA was first passed, the “Lords of Yesterday” remain a lord today.¹¹³

The story of the public range makes it difficult to see how similarly conceived reform efforts would lead to a meaningfully different outcome for U.S. fisheries, especially given the highly correlated economic and political dynamics of the two resource management schemes. Both are classically common pool resources¹¹⁴ and most importantly here, both resources are (or were) regulated by a participatory system of local control under the supervision of a highly politicized federal bureaucracy. In his 2003

Meddling Over Grazing Data in the Western U.S., NATURE NEWS BLOG (December 1, 2011), http://blogs.nature.com/news/2011/12/will_whistleblower_shop_make_h.html.

¹⁰⁸ E.g. Mathew Loser et al., *Impact of Grazing Intensity During Drought in an Arizona Grassland*, 21 CONSERVATION BIOLOGY 87, 95 (2006) (linking “high-impact grazing to the increased spread of cheatgrass”); Bureau Land Mgmt., *The Great Basin: Healing the Land*, 11, (2000) (describing the 25 million acres of Great Basin land that were overrun with exotic grasses).

¹⁰⁹ E.g. Melinda Wheeler et al., *Seasonal Grazing Affects Soil Physical Properties of a Montane Riparian Community*, 55 J. RANGE MGMT. 49 (2002) (describing generally the effects of grazing on riparian area soils); A.J. Belsky et al., *Survey of Livestock Influences on Stream and Riparian Areas in the Western United States*, 54 J. SOIL WATER CONSERVATION 419 (1999) (describing generally the damage to riparian area ecosystems caused by grazing across the western U.S.).

¹¹⁰ E.g. J.C. Neff et al., *Multi-Decadal Impacts of Grazing on Soil Physical and Biogeochemical Properties in Southeast Utah*, 15 ECOLOGICAL APPLICATIONS 87 (2005) (documenting the long term effects of grazing on soil erosion processes).

¹¹¹ See Donahue, *supra* note 75, at 803 (regarding the relationship between the BLM and the ranching industry the author writes, “from my perspective, the status quo in 2005 looks a lot like 1934”).

¹¹² In 1996, grazing fees on BLM lands were reduced to \$1.35 per AUM, the lowest amount legally allowed. See Michelle M. Campana, *Public Lands Grazing Fee Reform: Welfare Cowboys and Rolex Ranchers Wrangling with the New West*, 10 N.Y.U. ENVTL. L.J. 403, 430 (2001). In 2012, grazing fees on BLM lands remained at \$1.35 per AUM. See Vincent, *supra* note 82, at 3.

¹¹³ See generally CHARLES WILKINSON, *CROSSING THE NEXT MERIDIAN—LAND, WATER, AND THE FUTURE OF THE WEST* (Island Press 1992). In *CROSSING THE NEXT MERIDIAN*, Professor Wilkinson famously argued that many of the major natural resource laws that govern environmental decision making in the American West were shaped to meet the needs of a frontier culture, but in the more settled West of today have become destructive. He named these laws “The Lords of Yesterday” and included grazing law among them.

¹¹⁴ Just as marine ecosystems can support fishing only up to a certain level, the range can provide fodder for only a finite number of livestock. Once that level has been passed the tragic logic of the commons takes hold. Moreover, just as the individual fisher is aware that forbearance in harvesting may serve only to put fish in a competitor’s boat, the rancher understands that a decision to limit the number of cows being grazed will not necessarily be reciprocated. In fact, communal pastures in 19th century England provided the inspiration for some of the earliest theorizing about common pool resources and the economic dynamics that can lead to their overuse. See WILLIAM FORSTER LLOYD, *TWO LECTURES ON THE CHECKS TO POPULATION*, 30–32, (Oxford Univ. Press 1833) (describing the processes by which a shared pasture can become overgrazed).

paper, “Recognizing the Regulatory Commons: A Theory of Regulatory Gaps”, Professor William Buzbee¹¹⁵ postulates that a second commons/political market dynamic is most likely to occur in exactly this sort of situation. That is, the political market operates most efficiently when some problem is too big or some agency is too small or when too many politicians and regulators from too many jurisdictions are standing around the outside of a problem looking in.¹¹⁶ One of the problems with the traditional commons tale, he points out, is that a single regulator is often assumed to exist: a monolithic black box that can mandate mutually agreed upon coercion and ensure a more rational pattern of resource exploitation.¹¹⁷ This unitary regulator, however, almost never exists in reality. Multiple individuals and institutions have a say over government policy, and as a result, interest groups have multiple opportunities to seek out and obtain unique policy treatment. The imagined black box, in other words, is really a freewheeling political market.¹¹⁸

This has certainly been the case with public lands, where ranchers have been able to press their case at a number of different levels of government.¹¹⁹ Consider FLPMA. Intended to be an expression of broad “multiple use” principles¹²⁰ and an organic act for the BLM¹²¹, the law was drafted in part in the House Committee on Interior and Insular Affairs, Subcommittee on Public Lands, by representatives from

¹¹⁵ In the interest of full disclosure, it should be noted that this author was a student in Professor Buzbee’s introductory environmental law course at the Emory University School of Law several years ago.

¹¹⁶ Less colloquially, Professor Buzbee refers to this problem as “jurisdictional mismatch” and argues that when “a social or ill or phenomenon encounters more than one form of jurisdictional mismatch, regulatory commons dynamics are particularly likely to create disincentives for regulatory action.” Buzbee, *supra* note 14, at 22.

¹¹⁷ *Id.* (arguing that “[t]he simplifying assumption of a single law maker or enforcer threatens to ignore an important reason regulatory challenges, especially in the environmental policy arena, often remain intractable”).

¹¹⁸ Keohane makes a similar point when he argues that economic “demand-side” theories of regulation treat government as “a monolith, controlled by a single political party, with regulatory agencies and legislatures combined into a single unit” and therefore leave no analytical room “for constituency pressures, variation among legislators, slack between legislative direction and the actions of administrative agencies, or other supply-side phenomena.” Keohane, *supra* note 12, at 321.

¹¹⁹ For ranchers, the BLM itself, congress and various congressional committees, state houses and governor’s mansions, and federal courts have all proven to be fertile ground for ranchers looking to harvest their own unique public lands policy. *E.g.* Donahue, *supra* note 75, at 749-50 (describing ranchers access to, and successful manipulation of, the various levels of federal and state government); Klyza, *supra* note 77, 109-40 (describing the political maneuvering of the ranching industry in the 20th century at multiple levels of government).

¹²⁰ Federal Land Policy and Management Act, 43 U.S.C. § 1702(c) (2012) (defining “multiple use” as, among other things, “management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people”); *See also* George Coggins, *Of Succotash Syndromes and Vacuous Platitudes: The Meaning of “Multiple Use Sustained Yield” For Public Management*, 53 U. COLO. L. REV. 229, 268 (1981) (arguing that FLPMA “must be read as a congressional condemnation of the agency for giving the noneconomic needs, resources, and values short shrift in prior management”); Phillip Stover, *Congressional Mandates, an Environmental Impact Statement, and the Bureau of Land Management: Can an Old Dog Be Taught New Tricks?*, 2 DRAKE J. AGRIC. L. 297, 302 (1997) (framing FLPMA’s multiple use mandate as a “significant leap over the Taylor Act and its goal of protecting rangelands for the ranchers”).

¹²¹ Subchapter III of FLPMA provides the Secretary of the BLM specific authority to administer FLPMA, as well as pre-FLPMA laws which had previously been carried out without such authorization. Federal Land Policy and Management Act, 43 U.S.C. § 1731(b) (2012). *See also* Eleanor R. Schwartz, *A Capsule Examination of the Legislative History of the Federal Land Policy and Management Act of 1976*, 21 ARIZ. L. REV. 285 (1979) (tracing the legislative history of the BLM’s “organic act”).

public lands ranching states and was heavily influenced by livestock groups.¹²² The result was highly protective of the ranching status quo. The grazing boards that had been eliminated by FACA were reinstated, grazing preferences for current permittees were continued, and ten-year permit tenure remained.¹²³ With Rangeland Reform '94 the story was the same. At the behest of their cattlemen constituents, western senators filibustered the original legislative package in order to prevent it from being enacted legislatively.¹²⁴ When Secretary Babbitt proceeded with the reforms administratively, fierce resistance from ranching groups during the notice and comment phase of the rulemaking process forced him to make a slew of concessions including avoiding raising grazing fees and abandoning national standards for rangeland health.¹²⁵ Again, the status quo was protected.¹²⁶

In fisheries, the ongoing dispute over the Sustainable Fisheries Act of 1996 (SFA) and the 2006 amendments to the FCMA shows how that system too is a part of a broader political market. Intended to improve the performance of the council system, the SFA mandated that depleted fisheries be rebuilt to biomass levels that support harvesting at the Maximum Sustainable Yield (MSY) within 10 years.¹²⁷ In order to put teeth in that requirement, the 2006 FCMA reauthorizations required that the councils put into place automatic catch levels (ACLs) and accountability measures (AMs) for all federally managed fisheries.¹²⁸ The ACL requirement has apparently been complied with nationwide.¹²⁹

¹²² Klyza, *supra* note 77, at 119 (listing the “American National Cattlemen’s Association, the American National Wool Grower’s Association, and the Public Lands Council” as supporters of the subcommittee’s version of the legislation that became FLMPA).

¹²³ Klyza, *supra* note 77, at 123.

See also Donahue, *supra* note 75, at 762-63.

¹²⁴ See generally Nicoll, *supra* note 93, at 65-75 (describing the efforts of western cattle interests to defeat Rangeland Reform '94).

¹²⁵ Interestingly, and perhaps tellingly, while many of the other regulations associated with the Rangeland Reform '94 proposals ended up considerably watered down by the rulemaking process, the creation of the RACs did not seem to have aroused a great deal of angst among the ranching community. See Nicoll, *supra* note 93, at 71-75 (focusing generally on grazing fees, environmental standards and permitting preferences rather than RAC formation); Olinger, *supra* note 74, at 665 (stating that the “formation of Resource Advisory Councils to replace the Grazing Advisory Boards” was the issue that had “received the least attention in the initial Rangeland Reform '94 proposal”).

¹²⁶ Even after forcing the administration to abandon much of Rangeland Reform '94, efforts to undermine the program continued. In 1995 legislators from western states launched an effort to undo most of Rangeland Reform '94. While that effort failed, it did not discourage ranching interests from pressing their case with the executive branch in later years. After the election of George W. Bush to the presidency in 2000, a group of officials more ideologically aligned with western ranchers was appointed to the BLM and the Department of the Interior. See generally Joseph M. Feller, *The BLM’s Proposed New Grazing Regulations: Serving the Most Special Interest*, 24 J. LAND, RESOURCES, & ENVTL. L. 241 (2004); Nicoll, *supra* note 93, at 75, 97-104; Wrabley, *supra* note 102. In 2006, the reconstituted BLM issued a number of new regulations that considerably weakened Secretary Babbitt’s reforms. Nicoll, *supra* note 93, at 99-100. Successful legal challenges and the election of the Obama administration have halted some of these changes, including changes that would have significantly reduced the ability of the public to participate in public lands planning processes, but there is no guarantee that ranching interests will not again seek to have grazing regulations rewritten. See *Western Watersheds Project v. Kraayenbrink*, 632 F.3d 472 (9th Cir. 2011) (enjoining changes to BLM grazing regulations). See also CAROL HARDY VINCENT, CONG. RESEARCH SERV., RL32244, *GRAZING REGULATIONS: CHANGES BY THE BUREAU OF LAND MANAGEMENT* (2007) (describing changes to BLM regulations since Rangeland Reform '94 and subsequent litigation).

¹²⁷ The Sustainable Fisheries Act of 1996, 16 U.S.C. § 1854(e)(4)(A)(ii) (2012).

¹²⁸ The Magnuson Stevens Fishery Conservation and Reauthorization Act of 2006, 16 U.S.C. § 1853(a)(15) (2012).

¹²⁹ Samuel D. Rauch III, *U.S. Fisheries Reach Another Milestone as Last Annual Catch Limit is Put in Place*, NAT’L MARINE FISHERIES SERV. (July 2, 2012), http://www.nmfs.noaa.gov/aboutus/leadership/acl_leadership_message.html (accessed August 15, 2012).

Not surprisingly, these policies have met with considerable resistance from the fishing industry, which has marshaled powerful political supporters on both sides of the partisan aisle to push back against these mandates. In the Senate, Chuck Schumer (D-NY) has introduced a bill that would allow the councils to extend the 10-year deadline for rebuilding fisheries and to consider economic factors when setting ACLs.¹³⁰ A companion bill in the House of Representatives has also been introduced by Frank Pallone (D-NJ).¹³¹ In addition to the Schumer/Pallone bill, Senator Bill Nelson (D-FL) has drafted a law intended to exempt species from the new catch limit requirements if NOAA does not have a current stock assessment.¹³² Win or lose, approve or disapprove, these efforts demonstrate that the commercial fishing industry is capable of entering the political market in service of their status quo and that the councils are not the sole locus of power in fisheries politics. Fishermen too, it seems, are lords of today.

B. *The Pendulum*

This framing is troubling, for it describes what is arguably a circular problem. Fisheries must be regulated in order to avert the race to fish, yet the race itself creates incentives that neuter those reforms.¹³³ Politics, however, is not circular. Instead, the process can be conceived of as a pendulum swinging back and forth between the preferences of a general polity on the one hand and those of more narrowly parochial interest groups on the other.¹³⁴ Those periods when the pendulum has been pushed over to the interest group are certainly the norm predicted by public choice theory,¹³⁵ but there are exceptions to the rule.

The exception most relevant here centers on the existence of “principal-agent slack.”¹³⁶ Slack is the condition that exists when constituents (the principals) fail to control the actions of legislators (the agents) in a given policy arena.¹³⁷ When constituents are not paying attention, goes the theory, slack

¹³⁰ *Flexibility and Access in Rebuilding American Fisheries Act of 2011*, S. 632, 112th Cong. (2011).

¹³¹ *Flexibility and Access in Rebuilding American Fisheries Act of 2011*, H.R. 3061, 112th Cong. (2011).

¹³² *Fishery Science Improvement Act of 2011*, S. 1916, 112th Cong. (2011).

¹³³ Others have made a similar point. “By inviting entrepreneurs to use the commons,” writes one observer, “the government owner is sowing the seeds of a lobbying interest that will likely push against restrictive conservation rules if and when they are needed.” Eagle, *supra* note 3, at 624. This problem is not unique to fisheries policy. The costs and benefits of any environmental regulation are usually spread widely between different groups of users, both spatially and temporally. Thus there is often some group more affected by a proposed regulation in the here and now than is the public at large and the impetus for political opposition is created. Richard J. Lazarus, *A Different Kind of “Republican Moment” in Environmental Law*, 87 MINN. L. REV. 999, 1000 (2003).

¹³⁴ Cf. James Gray Pope, *Republican Moments: The Role of Direct Popular Power in the American Constitutional Order*, 139 U. PA. L. REV. 287, 292 (1990) (arguing broadly that American history is “characterized by periodic outbursts of democratic participation and ideological politics”); Daniel A. Farber, *Politics and Procedure in Environmental Law*, 8 J.L. ECON. & ORG. 59, 66 (1992) (arguing that politics “alternates between normal periods, in which public attention to an issue is weak, and extraordinary periods, in which the issue has high salience for the public”, and that during these extraordinary periods the policy preferences of legislators moves towards those of the public and away from those of special interest groups); Levine & Forrence, *supra* note 16, at 173 (contending that the process by which regulatory institutions resolve issues is “sometimes dominated by the preferences of a general polity and sometimes by those of special interests”).

¹³⁵ In fact, the logical endpoint of the “Olson paradigm” is that there should be no environmental legislation at all. Farber, *supra* note 134, at 69.

¹³⁶ See Joseph P. Kalt & Mark A. Zupan, *The Apparent Ideological Behavior of Legislators: Testing for Principal-Agent Slack in Political Institutions*, 33 J.L. & ECON. 103, 105 (1990) (identifying the existence of “Principal-Agent Slack” as one of the primary factors motivating a legislator’s votes.”).

¹³⁷ Joseph P. Kalt & Mark A. Zupan, *Capture and Ideology in the Economic Theory of Politics*, 74 THE AM. ECON. REV. 279, 282 (1984). To define “Principal-Agent Slack,” Kalt and Zupan analogize the relationship between legislators and the public to the relationship between shareholders and the officers of a corporation. As they describe

grows and the pendulum swings toward the policy preferences of individual legislators and engaged interest groups. When the constituents are engaged, however, there is less slack, the marketplace for political trades shrinks, and the pendulum swings back towards more publicly minded policy making.¹³⁸ In these periods of reduced slack, politicians can be forced to act in ways that defy the predictions of public choice.¹³⁹ New and more publicly minded groups can control the agenda and define the terms of the debate. These “republican moments,” are perhaps few and far between, but they are not unheard of.¹⁴⁰

Framed as a pendulum rather than a circle, the political market analysis becomes an encouraging one because it suggests that the system won’t necessarily swallow reform efforts whole. The trick is to reduce public apathy and the slack it creates. And slack can indeed be reduced. Competition between lawmakers, the interest of active and aggressive NGOs, publicly minded academics dedicated to popularizing a particular point of view, and the news media can all be used to manipulate the amount of slack in the system.¹⁴¹ If for example, the producers at NBC Nightly News decided to run a weekly special on coral reef bleaching involving local politicians, members of environmental NGOs, and researchers from prominent universities, one might expect to see a greater amount of public interest, and thus less slack, in marine conservation topics.

No one, however, should take too much comfort from the possibility of a republican moment in fisheries. Earth Day is not every day. Inevitably slack will return and the pendulum will swing away from the reformers.¹⁴² The history of the public range is, if nothing else, a history of this back and forth. In the 1950s and 60s, Devoto, Foss, Voight, and McConnell helped to push the pendulum of rangeland politics to a place where the system could generate a set of policies nominally more acceptable to the environmental community. By the late 1970s and 80s, however, the “sagebrush rebellion”, the “wise-use” and “county supremacy” movements,¹⁴³ and free market environmentalism¹⁴⁴ had created a countervailing movement that swung the pendulum back towards ranchers.¹⁴⁵

it, “Principal-Agent Slack” occurs because there is “separation of ‘ownership’ by constituents and ‘control’ by policy makers.”

¹³⁸ *Id.* (“[S]lack in the principal-agent relationship can be expected to result in policymaker independence or ‘shirking.’”).

¹³⁹ See e.g. Farber, *supra* note 134, at 66 (observing that during periods of increased public engagement, legislation will be “less responsive to the demands of conventional interest groups”).

¹⁴⁰ The term “republican moments” was coined to describe the periodic outbursts of civic engagement that have marked U.S. political history. Pope, *supra* note 134.

¹⁴¹ Levine & Forrence, *supra* note 16, at 185–89.

¹⁴² This is not intended to suggest that politicians behave well only when people are watching. Even under public choice analysis, there are situations where publicly minded political behavior is rational. For one thing, ideological voting has a coalition-building value. It can serve as low opportunity-cost signal about the future policy choices an official will make which can, in turn, reassure voters that their policy preferences are being served by their legislator. See e.g. William R. Dougan & Michael C. Munger, *The Rationality of Ideology*, 32 J. L. & ECON. 119, 139 (1989) (concluding that establishing and maintaining an ideological reputation can help solve the problem of “rational ignorance” among voters). Additionally, politicians engage in credit-seeking behavior and often support causes simply because the cause will help them achieve some additional political goal. Farber, *supra* note 134, at 67 (noting that “one driving force behind the Clean Air Act was Senator Muskie’s desire to establish himself as ‘Mr. Environment’”). More charitably, even under a strict public choice approach, it is also possible to conceive of ideology as just another consumption good, and political actors as individuals who derive personal utility from voting their conscience. Kalt & Zupan, *supra* note 136, at 104 (describing ideology as “a consumption good that yields satisfaction in the form of moral sentiments” for politicians).

¹⁴³ These movements were all outgrowths of popular sentiment against federal control of western land and land management practices. The sagebrush rebellion began in the late 1970s and was succeeded by the wise use and county supremacy movements in the 1980s and 1990s. These movements were all connected by a common desire to devolve control of federal lands to local governments and residents. These movements resulted in a great deal of

The key, it seems, is the incentives that exist when the pendulum swings back to the interest group. For public lands ranchers, the incentives of the commons were never really altered by any of the reforms designed to dislodge them from the boards, and so the incentives to push for grazing friendly policies remained in place as well. When the underlying economic incentives change, however, behavior in the political market can change as well. Professor Michael Levine's discussion of the 1978 Airline Deregulation Act illustrates this nicely.¹⁴⁶ That act, he writes, was passed in an atmosphere of high public interest and very low slack. After deregulation occurred however, the industry did not press for reregulation, despite the fact that many of the large, established carriers had viewed the old system as protective of their interests.¹⁴⁷ This is because, Levine argues, the airlines were forced to adapt to a more competitive reality. Once they adapted their business strategies to this new, less regulated world, their interests began to diverge and so did their views of the old regulatory regime.¹⁴⁸ The result was that within a few years the U.S. airline industry had no shared position on a host of different regulatory issues and so had no shared motivation to bring about reregulation, even as scrutiny of the industry faded and slack increased.¹⁴⁹ The pendulum had swung back to the default position, but the industry had moved on to fight other fights.

The implication of all this is straightforward for those concerned with fisheries policy: achieving real reform is possible, but reforms are more likely to be durable if they alter the incentives associated with the status quo. Policy changes focused on the forms and processes of fisheries management (such as reforming the council membership) may succeed for a time, but they will not change the tragic incentives of the fisheries and fishermen will therefore remain motivated to enter the political market in search of policies that permit the race to fish to continue. Over time, the result will be the familiar back and forth of the political pendulum and the arc of reform will change slowly at best. Fortunately, there are ideas for reforming fisheries that are capable of reshaping the incentives of the TOC and changing the way the fishing industry seeks to exploit the political market. Below are three of those ideas.

VI. STRATEGIES FOR THE MARKETPLACE

A. Individual Transferable Quotas

The most obvious way to make fisheries something other than a commons is to privatize them and an Individual Transferable Quota (ITQ) scheme does something very close. In an ITQ scheme fishers

tension between some western citizens and government officials and occasional violence. Michael C. Blumm, *The Case Against Transferring BLM Lands to the States*, 7 FORDHAM ENVTL. L. REV. 387 (2011); Robert L. Glicksman, *Fear and Loathing on the Federal Lands*, 45 U. KAN. L. REV. 647 (1996-1997); Patrick Austin Perry, *Law West of the Pecos: The Growth of the Wise Use Movement and the Challenge to Federal Public Land-Use Policy*, 30 LOY. L.A. L. REV. 275 (1996).

¹⁴⁴ Very generally, free market environmentalism proposes that economic incentives, strong property rights, and liability rules rooted in the traditional common law, can provide more effective solutions to environmental problems than the centralized bureaucratic solutions that have traditionally been favored by U.S. policy makers. Terry L. Anderson & Donald R. Leal, *Free Market Environmentalism* (Palgrave 2001).

¹⁴⁵ See, e.g., Wrabley, *supra* note 102, at 100-06 (describing senior Bush (43) administration environmental appointees and their intellectual influences); Donahue, *supra* note 75, at 771 (noting that Ronald Reagan famously declared "count me in as a Sagebrush Rebel").

¹⁴⁶ Michael Levine, *Regulation, the Market, and Interest Group Cohesion: Why Airlines Were Not Reregulated*, 10-11, NYU Law & Econ. Res. Paper Series, Paper No. 06-52, 2006), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=945633.

¹⁴⁷ Via, among other things, the imposition of price and entry restrictions on potential competitors. *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

are assigned a share of the fishery. The share is usually expressed as a percentage of a total allowable catch (TAC) for a particular fishing season within a given geographical range.¹⁵⁰ While the TAC for a particular fishery may fluctuate year to year, the ITQ percentage remains the same. Because fishermen own (or at least have right to) their percentage, ITQs have the effect of making a fishery excludable. This interrupts the race to fish because fishermen no longer fear that competitors will end up harvesting all the fish before they have the same opportunity.¹⁵¹ Additionally, ITQs are usually conveyable, which (in theory at least) puts permits in the hands of those best able to use them and thus can help to reduce the pressure on the resource by giving marginal operators an incentive to leave the fishery.¹⁵²

Undoubtedly, some fisheries may not be suited to ITQs. Fisheries for straddling stocks, for example, would be difficult to manage via an ITQ regime due to the transactional complexities associated with implementing an international regulatory regime. There have also been concerns about the social impacts of privatization programs,¹⁵³ although the development of community based quota systems may help alleviate some of these problems.¹⁵⁴ Finally, just as with any other managed fishery, these schemes are only as good as the science that informs them.¹⁵⁵ If TACs are set too high then associated catch shares will be too large and the system will collapse of its own weight.

Despite the controversy,¹⁵⁶ there is mounting evidence that ITQs are effective. A recent study published in the journal, *Science*, used statistical methods to analyze a database of the world's ITQ

¹⁵⁰ Keith R. Criddle & Seth Macinko, *A Requiem for the IFQ in U.S. Fisheries?*, 24 MARINE POL'Y 461, 461-62 (2000) (explaining the process of setting an ITQ).

¹⁵¹ *Id.* The fact that fishermen have a secure claim to a portion of the total harvest under an ITQ scheme does not imply that economic competition between fishermen is eliminated. Instead it means that fishermen are competing to extract the most financial benefit from their ITQs rather than competing simply to land the most fish. This encourages fishing entities to modify their fishing practices so that they are more efficient and therefore more profitable. Cf. Bonnie J. McKay, *ITQs and Community: An Essay on Environmental Governance*, 33 AGRIC. & RESOURCE ECON. REV. 162, 164 (2004) ("Once people can trade in stunted fishing rights, i.e., so many pounds of fish or shellfish or so many days at sea, they have incentives to modify their capital investments to maximize profits..."). In fact, the rather ruthless Darwinism this sort of competition can engender is the root of the claim that ITQs have a deleterious effect on fishing communities. Because "highliners" (very good fishermen) and large companies can use their ITQs more efficiently (e.g., by fishing less days to catch the same amount of fish, using newer boats that burn less fuel, taking advantage of superior cash flow to hold back product until market conditions are favorable, etc...) these entities eventually outcompete their less efficient competitors and end up buying them out. Thus "rationalization" occurs and the ITQs end up concentrated in the hands of a few large operators leaving many smaller and less efficient fishermen out of work. This may be socially suboptimal, but it is economically rational. *Infra* note 152.

¹⁵² See R. Quentin Grafton et al., *Private Property Rights and Crises in World Fisheries: Turning the Tide?* 14 CONTEMPORARY ECON. POL'Y 90 (1996). Rationalization can be a painful process for fishing-dependent communities and consolidation undoubtedly leaves some individuals worse off than they were before. See, e.g., McKay, *supra* note 151, at 162 (describing the impacts of ITQ driven rationalization on fishermen in different communities). Nonetheless, given the amount of overcapitalization in global fishing fleets, it is difficult to envision a future for fisheries that does not involve serious amounts of effort reduction. See J.R. Beddington et al. *Current Problems in the Management of Marine Fisheries*, 317 SCIENCE 1713, 1714 (describing the problem of overcapacity).

¹⁵³ Gisli Palsson & Agnar Helgason, *Figuring Fish and Measuring Men: The Individual Transferable Quota System in the Icelandic Cod Fishery*, 28 OCEAN & COASTAL MGMT. 117 (1995).

¹⁵⁴ McKay, *supra* note 151.

¹⁵⁵ Peter H. Pearce & Carl Walters, *Harvesting Regulation Under Quota Management Systems for Ocean Fisheries*, 16 MARINE POL'Y 167 (1992).

¹⁵⁶ In fact, in the United States, a moratorium on IFQs was instituted between 1996 and 2004 due to concerns over the distributional effects and worries about the wisdom of privatizing a public trust resource. See Jennifer Brewer, *Paper Fish and Policy Conflict: Catch Shares and Ecosystem-Based Management in Maine's Groundfishery*, 16

fisheries. The researchers compared the management effectiveness of ITQ fisheries to those managed using traditional methods. Their conclusion was that that ITQ managed fisheries were half as likely to collapse as other fisheries.¹⁵⁷ Thus, for many fisheries, a shift to ITQ-based management seems like a straightforward way to reorient the economic incentives traditionally associated with the commons.¹⁵⁸

B. Marine Protected Areas

Another potential solution that could serve to interrupt the tragic logic of the commons is the establishment of a system of Marine Protected Areas (MPAs).¹⁵⁹ While MPAs are known by a bewildering array of different names and acronyms,¹⁶⁰ they are essentially (in the language of terrestrial conservation) something akin to a national park or wilderness area: a portion of ocean environment physically set aside from as many anthropogenic influences as possible.¹⁶¹ In their simplest form, MPAs establish a blanket prohibition on human presence in an ecosystem. More commonly, MPAs restrict or limit certain activities or types of individuals in a particular region of the ocean. Fishing, for example, can be banned outright in no-take reserves, or restricted such that specific species are off limits or fishing

ECOLOGY & SOC'Y 15 (2011). See also Mark Fina, *Rationalization of the Bering Sea and Aleutian Islands Crab Fisheries*, 29 MARINE POL'Y 311 (2005); Scott Matulich, *Did Processing Quota Damage Alaska Red King Crab Harvesters? Empirical Evidence*, 23 MARINE RESOURCE ECON. 253 (2008) (describing ongoing controversy over IFQs in the Alaskan crab fisheries).

¹⁵⁷ See Costello et al., *Can Catch Shares Prevent Fisheries Collapse?* 321 SCIENCE 1678, 1680 (2008). But see Cindy Chu, *Thirty Years Later: the Global Growth of ITQs and Their Influence on Stock Status in Marine Fisheries*, 10 FISH & FISHERIES 217 (showing that 40% of tested ITQ programs did not result in positive changes in stocks biomass); Beddington et al., *supra* note 152, at 1714-15 (providing evidence that fisheries in some ITQ countries were still overfished).

¹⁵⁸ A shift to ITQ based management is arguably underway in the United States. NOAA has adopted an official policy that appears to favor the development of these programs. See NAT'L OCEANIC ATMOSPHERIC ADMINISTRATION, NOAA CATCH SHARE POLICY, http://www.nmfs.noaa.gov/sfa/domes_fish/catchshare/docs/noaa_cs_policy.pdf, (last visited Aug. 15, 2012). Currently 17 federally managed fisheries use some form of an ITQ (referred to by NOAA as "catch shares"). Eleven of these programs were instituted since the end of the ITQ moratorium in 2004. See NOAA OFFICE OF SUSTAINABLE FISHERIES, CATCH SHARES—PROGRAMS BY REGION, www.nmfs.noaa.gov/sfa/domes_fish/catchshare/catchshare_region.htm, (Last visited Aug.15, 2012). Some have argued, however, that the Limited Access Provisions of the 2006 Reauthorization of the FCMA make it more difficult for NOAA to develop effective ITQ-type fisheries. Peter Schikler, *Has Congress Made it Harder to Save the Fish? An Analysis of the Limited Access Privilege Program (LAPP) Provisions of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006*, 17 N.Y.U ENV. L. J. 908 (2008).

¹⁵⁹ Sarah E. Lester et al., *Biological Effects Within No-take Marine Reserves: a Global Synthesis*, 384 MARINE ECOLOGY PROGRESS SERIES 33 (2009) (arguing that the accumulated data shows MPAs have generally positive effects on biomass, numerical density, species richness and size of animals within their boundaries); Callum M. Roberts et al., *The Role of Marine Reserves in Achieving Sustainable Fisheries*, 360 PHILOSOPHICAL TRANSACTIONS ROYAL SOC'Y B., 123 (2005) (arguing that the widespread use of MPAs as a conservation tool is required to effectively manage fisheries). Benjamin S. Halpern, *The Impact of Marine Reserves: Do Reserves Work and Does Reserve Size Matter?* 13 ECOLOGICAL APPLICATIONS 1117 (Supp. 2003) (concluding that a large-scale review of research results indicates conclusively that "density, biomass, individual size, and diversity in all functional groups" increases with marine reserves).

¹⁶⁰ Tundi Agardy et al., *Dangerous Targets? Unresolved Issues and Ideological Clashes Around Marine Protected Areas*. 13 AQUATIC CONSERVATION: MARINE & FRESHWATER ECOSYSTEMS 353, 355 (2003) (describing the "historical quilt of meanings that was formed as protected areas began to spring up in coastal and marine areas around the world, each with its own label and implications").

¹⁶¹ *Id.* at 356 (describing the various definitions adopted by the U.S. Government, the Convention on Biological Diversity, and various other commentators).

is prevented entirely during different seasons.¹⁶² A variant of the MPA is the Territorial User Rights in Fisheries (TURF) idea. TURF fisheries reserve a particular geographic zone to a group of fishermen. In Chile for example, industrial fleets are excluded from the near-shore, continental shelf regions of the coastal sea in favor of artisanal fishermen.¹⁶³

MPAs may be a bit more problematic than ITQs for fishery conservation.¹⁶⁴ For one thing, they don't prevent fishermen from catching each other's fish. Thus non-excludability does not attach outside of the MPA and the race to fish can therefore continue in non-protected waters.¹⁶⁵ Further, unlike many reef fisheries that are highly correlated with place and habitat, high seas or pelagic fisheries aren't tied to any particular geographic location. For these fisheries it is uncertain whether an MPA can be viable at all.¹⁶⁶ Nor is it clear that MPAs can provide meaningful protection for some species of temperate demersal fish such as cod.¹⁶⁷ The pattern of social interaction between fishing communities and area restrictions is similarly uncertain because the establishment of MPAs may displace fishing effort in ways that are harmful and unanticipated.¹⁶⁸ Lastly, in some fisheries, ecosystems may be so disturbed that something approaching "normal" can never return and MPAs would, in these cases, serve little purpose.¹⁶⁹

On the other hand, there is an increasing amount of literature demonstrating the potential of MPAs to serve as effective fishery management tools, especially when linked together in a network of protected areas.¹⁷⁰ Appropriately sited and designed MPAs have been shown to increase the abundance and average size of resident fish¹⁷¹ and are believed in some cases to sustain fisheries yields via migration

¹⁶² *Id.*

¹⁶³ Juan C. Castilla, *Fisheries in Chile: Small Pelagics, Management Rights, and Sea Zoning*, 86 BULL. MARINE SCI. 221 (2010).

¹⁶⁴ Michel J. Kaiser, *Are Marine Protected Areas a Red Herring or Fisheries Panacea?*, 62 CANADIAN J. FISHERIES & AQUATIC SCIENCES 1194 (2005) (elaborating on the pros and cons of MPAs). Agardy, *supra* note 160, at 363 (arguing that unrealistically high expectations exist for MPAs and can lead to negative management results).

¹⁶⁵ One proof of this is the phenomenon of "fishing the line," where fishermen focus effort on areas directly adjacent to no-take marine reserves in a sort of localized race to fish. See Julie B. Kellner et al., *Fishing the Line Near Marine Reserves in Single and Multispecies Fisheries*, 17 ECOLOGICAL APPLICATIONS 1039 (2007).

¹⁶⁶ David M. Kaplan et al., *Pelagic MPAs: The Devil is in the Details*, 24 TRENDS IN ECOLOGY & EVOLUTION 360 (2009).

¹⁶⁷ See e.g. Sigfus A. Schopka et al., *Using Tagging Experiments to Evaluate the Potential of Closed Areas in Protecting Migratory Atlantic Cod (Gadus morhua)*, 67 ICES J. MARINE SCI. 1024 (2010) (finding that MPAs were largely ineffective in the protection of adult Atlantic cod due to their highly migratory behavior); Robert E. Blyth-Skyrme et al., *Conservation Benefits of Temperate Marine Protected Areas: Variation among Fish Species*, 20 CONSERVATION BIOLOGY 811 (2006) (describing the failure of a gear-restricted area of approximately 500 km² to generate significant conservation benefits for large, late maturing and highly mobile species).

¹⁶⁸ See e.g. Richard Pollnac et al., *Marine Reserves as Linked Social-Ecological Systems*, 43 PNAS 18262 (2010).

¹⁶⁹ See e.g. Andrew Bakun & Scarla Weeks, *Adverse Feedback Sequences in Exploited Marine Systems: Are Deliberate Interruptive Actions Warranted?* 7 Fish & Fisheries 316 (2006) (demonstrating that marine ecosystems under fishing pressure can undergo radical restructuring of populations such that the fishery is altered in a potentially permanent fashion); Jeffery Hutchings & John Reynolds, *Marine Fish Population Collapses: Consequences for Recovery and Extinction Risk*, 54 BIOSCIENCE 297 (2004) (demonstrating that for many severely damaged fisheries recovery can take more than 15 years, if it occurs at all).

¹⁷⁰ Stephen Gains et al., *Designing Marine Reserve Networks for Both Conservation and Fisheries Management*, 107 PNAS 18286 (2010).

¹⁷¹ See, e.g., J. Claudet et al., *Assessing the Effects of a Marine Protected Area (MPA) on a Reef Fish Assemblage in a Northwestern Mediterranean Marine Reserve: Identifying Community-Based Indicators*, 130 BIOLOGICAL CONSERVATION 349 (2006) (showing that biomass of large fish within the protected area increased).

out of the protected area.¹⁷² Similarly, the Chilean TURF strategy (in conjunction with other management techniques) has had demonstratively positive effects on the fortunes of artisanal fishermen¹⁷³ and there is even data that suggests that large-scale temperate demersal fisheries can benefit from MPAs if they are properly designed and managed.¹⁷⁴ It has also been demonstrated that MPAs can enhance the reproductive potential of fish stocks by conserving genetic material and providing protection to sexually mature fish¹⁷⁵ whose reproductive product (larvae) has the potential to be dispersed to other portions of the ocean in quantities sufficient to improve recruitment.¹⁷⁶ Even the feasibility of pelagic MPAs is being reconsidered based on improvements in conservation biology, oceanography, and fisheries science.¹⁷⁷

Some have argued that MPAs do nothing to affect the economic incentives of fishermen¹⁷⁸ but this is not entirely correct. True, outside MPAs, fish remain a common-pool resource and thus all the incentives that lead to overharvesting continue to exist. Within an MPA, however, the economic character of the resource itself is fundamentally changed. Fish that are resident in a protected zone effectively become the property of some group, usually the public, but occasionally, as in the case of TURFs, a private group.¹⁷⁹ Thus, assuming enforcement is credible, excludability is conferred to the resource within the boundaries of the MPA and fishermen can rationally conclude that the benefits to be gained by leaving those fish in the water (additional growth, additional production of eggs, etc...) will be realized rather than negated by another's lack of forbearance. In other words, MPAs can negate the "take-it-or-someone-else-will" logic that lies at the heart of the commons and the competition in the political market.

¹⁷² Benjamin Halpern et al., *Spillover from Marine Reserves and the Replenishment of Fished Stocks*, 36 ENVTL. CONSERVATION 268 (2010).

¹⁷³ Castilla, *supra* note 163, at 225-29.

¹⁷⁴ Jonathan A.D. Fisher & Kenneth T. Frank, *Changes in Finfish Community Structure Associated with an Offshore Fishery Closed Area on the Scotian Shelf*, 240 MARINE ECOLOGY PROGRESS SERIES 249 (2002) (arguing that temporary closure of a large portion of the Scotian shelf may have benefited adjacent areas of the bank via the spillover effect); S. A. Murawski et al., *Large-Scale Closed Areas as a Fishery-Management Tool in Temperate Marine Systems: The Georges Bank Experience*, 66 BULL. MARINE SCI. 775 (2000) (showing that year-round closure of more than 17,000 km² of Georges Bank had significantly positive effects on resident ground fish stocks).

¹⁷⁵ Marissa Baskett et al., *Marine Reserve Design and the Evolution of Size at Maturation in Harvested Fish*, 15 ECOLOGICAL APPLICATIONS 882 (showing via model that appropriately sized MPAs would have a positive effect on size at maturity for exploited cod and red snapper).

¹⁷⁶ Serge Planes et al., *Larval Dispersal Connects Fish Populations in a Network of Marine Protected Areas*, 106 PNAS 5693 (2009) (demonstrating via DNA parentage analysis that clownfish larvae settling in one proposed MPA location had been spawned by fish residing in another proposed MPA more than 35 km distant); Benjamin Halpern & Robert Warner, *Matching Marine Reserve Design to Reserve Objectives*, 270 PROC. ROYAL SOC. LONDON B. 1871 (2003) (suggesting via modeling study that appropriately sized marine reserves will benefit fisheries via export of larvae from protected areas to areas where exploitation is allowed, but acknowledging that empirical support for this proposition is limited).

¹⁷⁷ Edward T. Game et al., *Pelagic Protected Areas: The Missing Dimension in Ocean Conservation*, 24 ISSUES IN ECOLOGY & EVOLUTION, 360 (2010); K. David Hyrenback et al., *Marine Protected Areas and Ocean Basin Management*, 10 AQUATIC CONSERVATION: MARINE & FRESHWATER ECOSYSTEMS 437 (2000).

¹⁷⁸ Ray Hilborn et al. *When Can Marine Reserves Improve Fisheries Management?*, 47 OCEAN & COASTAL MGT. 197, 199 (2004) (stating that MPAs do not affect fishermen's incentives).

¹⁷⁹ Cf. Manuela Pulina & Marta Meleddu, *Defining a Marine Protected Area Strategy: A Stakeholder Perspective*, 66 OCEAN & COASTAL MANAGEMENT 46, 46 (observing that MPAs can have the effect of turning a "common good" into something with the "characteristics of a club good, which has a higher degree excludability").

C. Dominant Use Agencies¹⁸⁰

A number of U.S. agencies (including the BLM) are operated according to “multiple use” principles that require agencies to manage the resources in their charge in a way that balances the demands of various stakeholder groups.¹⁸¹ Some have asserted that these open-ended and largely standardless mandates¹⁸² help create exactly the type of political and economic dynamics described in the sections above.¹⁸³ Agencies with a mandate that includes both exploitation and conservation, runs the argument, are inevitably subject to conflicting demands from opposed interest groups. Given that these demands are often irreconcilable, the agencies tend not to balance at all, but instead succumb to the most aggressive group.¹⁸⁴ The mandate, in other words, makes the commons.

This mixed mandate problem is arguably at work in the U.S. fisheries management system.¹⁸⁵ The FCMA requires that “conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.”¹⁸⁶ Environmental groups thus have a rational basis for demanding conservationist policies but so too does the fishing industry have justification for pushing for more permissive regulation. Reorganizing the U.S. regulatory apparatus such that a single agency was responsible for marine conservation would shift this dynamic, especially if, like the U.S. Park Service, the conservation mandate came with significant areas of ocean habitat to manage. This type of ‘dominant use’ agency would be focused on preserving ocean ecosystems rather than developing fishery resources. The managed commons would no longer be a commons at all, because the basic presumption in favor of open-access fishing that characterizes the council system would be reversed. This is not to suggest that a dominant use agency would forbid fishing, or that existing management systems (i.e. the councils) would necessarily cease to operate, but within the jurisdiction of a conservation focused agency, fishing would be disfavored relative to non-extractive uses. Fish stocks managed by this agency would thus gain the characteristic of excludability. As with MPAs, this excludability could over time begin to change the fisherman’s calculation about the value of fish left in the sea. Under a dominant use regime, the fish might be off-limits to the individual, but that individual needn’t worry that another will take advantage of the imposed forbearance.

¹⁸⁰ This section is rooted largely in arguments made by Professor Josh Eagle of the University of South Carolina. Josh Eagle, *Regional Ocean Governance: The Perils of Multiple-Use Management and the Promise of Agency Diversity*, 16 DUKE ENVTL. L. & POLICY FORUM 141 (2006).

¹⁸¹ See *Supra* note 90.

¹⁸² See Blumm, *supra* note 83, at 407; See also R. Behan, *The Succotash Syndrome, Or Multiple Use: A Heartfelt Approach to Forest Land Management*, 7 NAT. RESOURCES J. 473 (1967) (an early critique of the multiple use idea). But see, George Coggins, *Of Succotash Syndromes and Vacuous Platitudes: The Meaning of “Multiple Use Sustained Yield” For Public Management*, 53 U. COLO. L. REV. 229, 231 (1981) (arguing that both FLPMA and other multiple use statutes have judicially enforceable standards “yet to be unearthed”).

¹⁸³ See generally Blumm, *supra* note 83 (advancing the argument that multiple use principles enable interest groups to take advantage of natural resource governance systems due to the forces described by public choice theory in ways that generate bad policy).

¹⁸⁴ See Eagle, *supra* note 180, at 158-62; Blumm, *supra* note 83.

¹⁸⁵ See Eagle, *supra* note 180, at 147 (arguing that “the poor condition of the marine environment is in part a product of the multiple-use mandate under which agencies currently operate”).

¹⁸⁶ *The Magnuson-Stevens Fisheries Conservation and Management Act*, 16 U.S.C. § 1851(a)(1). The difficulty of translating this muddled mandate into effective conservation policy has challenged scientists, regulators, and fishermen since the FCMA was first passed. See e.g., Eagle, *supra* note 3, at 623-27 (describing the difficulties NOAA experiences as a result of their status as both “facilitator” and “regulator” of fisheries); See Jon Brodziak et al., *Goals and Strategies for Rebuilding New England Groundfish Stocks*, 94 FISHERIES RESEARCH 355 (2008) (describing the difficulties of translating the statutory language of the FCMA into effective policy for rebuilding stocks of New England groundfish).

The obvious problem with this idea is that it is completely conjectural. There has been no legislative attempt to implement dominant use in ocean management.¹⁸⁷ Nonetheless, the growing acceptance of MPAs as a marine conservation technique suggests one pathway that might lead to the eventual creation of such an agency: Increased use of MPAs may in time necessitate creation of a management entity for the new reserves. Just as the old Grazing Service of the TGA grew into today's BLM, an entity established to manage MPAs might end up, by default, the nation's marine conservation agency.¹⁸⁸

D. A New Reality?

At the heart of all these proposals is their potential to reduce the incentive to race to fish and to create a less reactionary market for fisheries policy. Beyond this generalized forecast, however, it is difficult to predict with specificity how this broad river of new incentives will be dredged and channeled into a more manageable politics. What sort of lobbying environment would these reforms create? How would the tactics of the rent-seekers change? What new incentives would exist for policy makers? While there are many potential answers to these questions, a few fairly obvious possibilities suggest themselves.

First, tradable ITQs are likely to cause some amount of industry rationalization, which could in turn cause significant changes in the rent-seeking behavior of political market participants.¹⁸⁹ In this scenario, as a quota system develops within a particular fishery, many individual participants will be outcompeted and forced to sell their share in favor of retirement or other professional pursuits.¹⁹⁰ This loss of participants will reduce the likelihood that the fishery will be overcapitalized, which will in turn reduce the chance that associated industry groups will feel the need to enter the political market in search of subsidies and other policies needed to sustain overbuilt fleets.¹⁹¹ Even when fishing groups do go back into the political market, rationalization may act to change the way legislators respond to industry interests, if for no other reason than that the number of voting (i.e. electorally relevant) fishermen will be smaller than it was in the past.

Perhaps more important than the reduced pressure for certain types of rent is the possibility that ITQs and MPAs will atomize the interests of fishermen and leave the industry less able to advocate for itself as a coherent whole. ITQ programs, for example, have been observed to create different incentive structures among the processing and harvesting sectors of the industry.¹⁹² There is also evidence that possession of secure property rights can incent quota holders to pressure their government for more

¹⁸⁷ It is worth noting, however, that this idea has been proposed before in the public lands context. The PLLRC discussed above in fact suggested giving up the idea multiple use in favor of a scheme of dominant use management and zoning. See Public Land Law Review Commission, *supra* note 85, at 48-52.

¹⁸⁸ It might also be argued that the portions of the 2006 reauthorization of the FCMA that prevent councils from setting TACs above the recommendations made by the scientific committees are a first step towards establishing the sort of conservation-first mandate that could ultimately lead to a new type of marine resource management agency. This is part of the larger package of reforms that was the 2006 FCMA Reauthorization discussed above. See *The Magnuson-Stevens Fisheries Conservation and Management Act*, 16 U.S.C. § 1852(h)(6) (2012).

¹⁸⁹ Grafton, *supra* note 152, at 94.

¹⁹⁰ *Id.*

¹⁹¹ Donald Ludwig et al., *Uncertainty, Resource Exploitation, and Conservation: Lessons from History*, 260 SCIENCE 17 (1993). In this paper, the authors describe a self-reinforcing pattern of overinvestment, crash, and subsidization that has characterized many open access fisheries in the past. This pattern has come to be known as "Ludwig's Ratchet." See e.g. Hennessey & Healey *supra* note 9, at 189 (referring to "Ludwig's Ratchet").

¹⁹² See Matulich, *supra* note 3, at 255-58 (describing the efforts of the North Pacific Fishery Management Council to reconcile the interests of crab harvesters, processors, and fishing dependent communities during a period of industry rationalization).

restrictive management measures in order to preserve the long-term viability of the resource, a position not usually associated with conventional fishing industry groups.¹⁹³ MPAs are likely to have a similar effect. In addition to the non-use values associated with protecting a portion of an ecosystem, an assortment of organizations focused on the non-consumptive use of marine resources (e.g. whale watching tour operators, SCUBA diving charter boats, and scientific researchers) will be positioned to benefit financially and professionally from the existence of an expanded network of MPAs.¹⁹⁴ Thus MPAs are likely to give rise to their own self-interested lobbies that would serve as an effective counter to fishing groups.¹⁹⁵ In this more fractious and divided political market, where different groups of fishermen oppose each other and the interest groups associated with MPAs exercise increased influence, lobbyists may have a more difficult time convincing government to take action on their behalf. Policy makers will be less certain of the strength of individual groups and more aware of the likelihood that there are other groups with conflicting views and dissimilar interests.¹⁹⁶ The fishing industry may still be able to harvest some useful policy treatment from this market, but the providers are likely to be less accommodating than they have been in the past.¹⁹⁷

Finally, an effective dominant use agency would, by definition, remove some portion of the previously available supply of fishing friendly policies from the political market. This is because a dominant use agency, unburdened by the conflicting mandates that plague other agencies,¹⁹⁸ would have

¹⁹³ See R. Quentin Grafton, *Incentive-Based Approaches to Sustainable Fisheries*, 63 CANADIAN J. FISHERIES & AQUATIC SCI. 699, 702 (2006).

¹⁹⁴ R. Quentin Grafton et al., *A Policy-Enabling Framework for the Ex-Ante Evaluation of Marine Protected Areas*, 54 OCEAN & COASTAL MANAGEMENT 478, 479 (2011); C.J. Klein et al., *Striking a Balance Between Biodiversity Conservation and Socioeconomic Viability in the Design of Marine Protected Areas*, 22 CONSERVATION BIOLOGY 691, 692 (2008).

¹⁹⁵ Already, the process of establishing and maintaining MPAs is known to require a delicate balancing act between fishermen and other stakeholders. It stands to reason that these disparate interests will continue to require mediation in the political market. See e.g., Mary Gleason et al., *Science-Based and Stakeholder-Driven Marine Protected Area Network Planning: A Successful Case Study from North Central California*, 53 OCEAN & COASTAL MGMT. 52 (2010); Enrique G. Oracion et al., *Marine Protected Areas for Whom? Fisheries, Tourism, and Solidarity in a Philippine Community*, 48 OCEAN & COASTAL MGMT 393 (2005).

¹⁹⁶ Cf. Scott Ainsworth, *Regulating Lobbyists and Interest Group Influence*, 55 J. POL. 41, 42 (1993) (“Without an accurate assessment of the salience of the interests represented by lobbyists, legislators are unsure of the interests they are balancing.”); John R. Wright, *Contributions, Lobbying, and Committee Voting in the U.S. House of Representatives*, 84 AM. POLITICAL SCI. REV. 417, 433 (1990) (“Representatives’ voting decisions in committee...are best explained here by the number of lobbying contacts they received from groups on each side of the issue.”); Svein Jentoft & Bonnie McCay, *User Participation in Fisheries Management*, 19 MARINE POLICY 227, 234 (observing that ability of industry to affect fisheries decision making processes depends on the ability of industry participants “to speak with one voice”); David Epstein & Sharyn O’Halloran, *A Theory of Strategic Oversight: Congress, Lobbyists, and the Bureaucracy*, 11 J. L. ECON. & ORG. 227, 228-29 (1995) (finding that an increased number of interest groups “makes legislators better off” due to the increased information these groups provide).

¹⁹⁷ To some degree, the idea of interest group atomization is the mirror image of Buzbee’s regulatory commons argument. Professor Buzbee postulates that “gaps” between different regulatory and legislative authorities can often make it difficult for government to take needed regulatory action. See Buzbee, *supra* note 14, at 2 (focusing on the “predictable political economic incentives for potential regulators to leave social ills unaddressed”). Here, I am suggesting that the existence of structurally opposed interests amongst different stakeholder groups may make it difficult for the industry as a whole to mount effective rent-seeking campaigns

¹⁹⁸ See Eagle, *supra* note 180, at 158-62 (using both hypothetical scenarios and historical examples to illustrate the problems NOAA fisheries has had applying their multiple use mandate in a regulatory setting);. See also Blumm, *supra* note 83, at 418-22 (arguing that federal land management agencies subject to a multiple use mandate tend to be dominated by commodity interests).

almost no incentive to “facilitate” fishing.¹⁹⁹ That is, inasmuch as managing fishing requires that fishing occur, NOAA Fisheries has an incentive to ensure that at least some fishing occurs. A dominant use agency focused on marine preservation would have no such incentive, making it that much more difficult for the fishing industry to obtain regulatory rent.

VII. CONCLUSION: HOW SEX IS LIKE FISHING

This essay was originally conceived of as a bit of lawyerly advice for individuals concerned with fisheries issues. It is not an attempt to lay out a master plan for reform or to suggest that ITQs, MPAs, and dominant use agencies are the only solution to the problem of overfishing. Instead, the more modest goal of this essay is to point out the very real but often ignored structural realities that help shape the politics of fisheries management in the United States and to suggest a few ideas that might improve the arc of reform given those realities.

In the Tragedy of the Commons, Garret Hardin described overpopulation as falling into that class of problem that had “no technical solution.”²⁰⁰ Because there was nothing science could do to stop people from having too many children he argued that the problem of overpopulation was not solvable other than via socially coerced procreative “temperance.”²⁰¹ What Hardin had failed to appreciate and what this essay has striven to show, is the difficulty of creating laws and rules capable of coercing individuals to temper their behavior over extended periods of time, especially when the desired temperance is *contra* the individual’s self-interest²⁰² and when there is an easy way around the prohibition. Hardin had substituted one “no-technical solution” problem for another. Individuals proposing to improve fisheries management by changing council membership are making the same essential mistake. They are assuming that meaningful reform is simply a matter of writing appropriately stern laws about who can fish or who can be members of this or the other regulatory body.

One recent article, in the context of a critique of IFQs, argued that the problems with fisheries management are much ado about nothing.

“Human societies, over a rather long history, have figured out how to prevent all manner of unwanted activities and outcomes—from child pornography to organized dog fighting. It is no great mystery and ownership plays no part in the story. Only fisheries economists and ideologues believe that property rights (or the lack thereof) explain overfishing.”²⁰³

The unintended irony of the analogy (unfortunately, child pornography and dog fighting are not exactly dusty relics from a forgotten past) perfectly encapsulates the tendency of some to assume away the difficulties associated with prohibiting anything. They have failed to realize that the incentives of the

¹⁹⁹ See Eagle, *supra* note 3, at 624 (pointing out that agencies that manage the extractive use of natural resources have an incentive to encourage and retain investment in the industry).

²⁰⁰ Hardin, *supra* note 11, at 1243.

²⁰¹ *Id.* at 1246.

²⁰² Procreative temperance is most certainly *contra* the self-interest of a great many people, especially in the developing world, where children are often thought of as a form of a “pension” because they are expected to provide economic support to aged parents. See generally Harvey Leibenstein, *Economic Backwardness and Economic Growth: Studies in the Theory of Economic Development* (California, John Wiley 1957).

²⁰³ Daniel Bromley, *Abdicating Responsibility: The Deceits of Fisheries Policy*, 34 FISHERIES 280, 282 (2009).

commons make it absolutely rational for fishers to engage in a race to fish,²⁰⁴ and that the dynamics of the political market will enable fishing groups to seek out the sort of regulatory treatment needed to continue doing so. In a democracy, process available to one is process available to all.

Thus, this essay argued for focusing reform efforts on structural changes that reorder the commons and de-incentivize the race to fish rather than focusing on process based fixes that flow from a focus on imperfect representation on the councils. The idea is not simply that better economic incentives are needed to improve fisheries. They are, of course,²⁰⁵ but the larger point is that with more rational economic incentives attached to fisheries, the nature of fishery politics is likely to change. Less often will the contests in the corridors of power be about enabling overfishing because fewer and fewer fishing groups will perceive that their ability to compete is dependent on the outcome of the race to fish. The process will not be perfect, but it will be better than it has been and may achieve more than the sputtering starts and stops of improvement that have characterized efforts to reform rangeland management.

Recent developments hint that this may already be occurring. The use of MPAs and ITQs is growing in the United States²⁰⁶ and some of the reforms contained within the 2006 reauthorization of the FCMA hint that a shift towards something approaching a dominant use agency is not beyond the pale of possible. There are no panaceas,²⁰⁷ but if real incentive-based reforms can be achieved, it may be that in the not too distant future the politics of the fishery will no longer be a choice between enabling tragedy or enforcing coercion.

²⁰⁴ See Ray Hilborn, *Managing Fisheries is Managing People: What Has Been Learned*, 8 FISH & FISHERIES 285, 288 (2007) (arguing that “fishing fleets can be thought of as a rational economic entity, that will, in aggregate, make decisions to maximize their well-being within the constraints of the legal and institutional incentives imposed on them”). See also Trevor Branch et al., *Fleet Dynamics and Fishermen Behavior: Lessons for Fisheries Managers*, 63 CANADIAN J. FISHERIES & AQUATIC SCIENCE 1648 (2006) (stating that “fishermen (if allowed) will continue to enter a fishery as long as revenues minus costs remain above zero”).

²⁰⁵ A note is in order here. This essay has not mentioned fisheries co-management, an idea with wide appeal in academic circles. See, e.g., Neil A. Davis, *Evaluating Collaborative Fisheries Management Planning: A Canadian Case Study*, 32 MARINE POL’Y 867 (2008); Jesper R. Nielsen et al., *Fisheries Co-management—An Institutional Innovation? Lessons from South East Asia and Southern Africa*, 28 MARINE POL’Y 151 (2004); Svein Jentoft, *Legitimacy and Disappointment in Fisheries Management*, 24 MARINE POL’Y 141 (2000). This is not intended to dismiss or marginalize this idea. In fact, none of the proscriptive solutions suggested in this essay are incompatible with co-managed fisheries. It is quite the opposite: ITQs require feedback from users and MPAs are thought to be improved by incorporating local knowledge into the design. Even a leviathan-like dominant-use agency could take steps to involve resource users in the deliberative process (especially since that agency shouldn’t be particularly concerned with fishing industry “capture”). The focus on economic incentives, however, is reflective of the belief that in the U.S., where fisheries are usually operated by economically minded (profit-driven) individuals, economically based reforms are a necessary precondition for achieving durable change.

²⁰⁶ *Supra* note 158. See also Lauren Wenzel et al., *An Analysis of United States MPAs* (March 2012), (available at http://www.mpa.gov/pdf/helpful-resources/mpa_analysis_2012_0320.pdf) (describing the National System of Marine Protected Areas which was established in 2009).

²⁰⁷ See Elinor Ostrom et al. *Going Beyond Panaceas*. 104 PNAS 15176 (2007); Thomas Dietz et al., *The Struggle to Govern the Commons*, 302 SCIENCE 1907 (2003).