

## COMMENT

### GLOBAL FISHERIES SUBSIDIES: WILL THE WTO REEL IN EFFECTIVE REGULATIONS?

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#### 1. INTRODUCTION

Global fisheries are being dangerously overfished. At present, over seventy-five percent of the world's major fish types are overfished or depleted.<sup>1</sup> Worse, this percentage has risen from thirty-three percent in 1970<sup>2</sup> and shows no signs of abating.<sup>3</sup> At the heart of the problem are government subsidies—those subsidies that seafaring nations distribute to their commercial fishing industries in order to increase their country's fishing production.<sup>4</sup> By artificially

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<sup>1</sup> See FOOD & AGRIC. ORG. OF THE UNITED NATIONS, THE STATE OF THE WORLD FISHERIES AND AQUACULTURE 23 (2002) [hereinafter SOFIA] (stating that an estimated 47% of the major global fish populations in 2002 were considered fully exploited, which means that such stocks are at their maximum sustainable limits in terms of catch; 18% were considered overexploited, meaning that there is an increasing likelihood that stocks will decline further and catches will decrease; and a remaining 10% were considered depleted and, as such, are considered far less productive than they used to be).

<sup>2</sup> See *Japan to Fight Subsidy Ban at WTO Fisheries Meeting*, THE ASAHI SHIMBUN (Sept. 23, 2004) [hereinafter ASAHI] (noting that according to the Food and Agricultural organization of the United Nations 75% of major fish types faced overfishing or depletion in 1999, jumping up from 33% in 1970).

<sup>3</sup> See SOFIA, *supra* note 1, at 23 (recognizing that “as fishing pressure continues to increase . . . the number of overexploited, depleted, and recovering stocks is increasing”).

<sup>4</sup> See Christopher D. Stone, *Too Many Fishing Boats, Too Few Fish: Can Trade Laws Trim Subsidies and Restore the Balance in Global Fisheries?*, 24 *ECOLOGICAL L.Q.* 505, 514 (1997) (recognizing that an inherent problem of fisheries management is that “the industry has been the historical beneficiary of public subsidy . . . [which]

distorting the natural market equilibrium that would otherwise limit overfishing and maintain sustainable fish populations, such subsidies have a significant and detrimental effect on the fishing industry.<sup>5</sup> The problem is not limited to developed countries. Overfishing also threatens developing countries, especially those countries whose economies rely heavily on the fishing industry.<sup>6</sup>

Recognizing the magnitude of the overfishing problem, the World Trade Organization ("WTO"), in its 2001 Ministerial Declaration, instructed WTO member nations to begin developing and considering specific WTO rules governing the regulation of fisheries subsidies.<sup>7</sup> Nations have recently begun submitting proposals.<sup>8</sup> These proposals run the gamut from a complete eradication of government fisheries subsidies to only eliminating subsidies that can be shown to contribute directly to overfishing.<sup>9</sup>

Previous attempts to deal with the overfishing problem—for example, assigning property rights to fisheries<sup>10</sup>—have been largely undermined by the looming problem of governments providing subsidies to their fishing industries.<sup>11</sup> Subsidies that are di-

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lowers private costs at public expense, [and, as a consequence, increases] the investment in fishing beyond the level that market signals would warrant").

<sup>5</sup> *Id.*

<sup>6</sup> See FOOD & DRUG AGRIC. ORG. OF THE UNITED NATIONS, OVERVIEW OF FISH PRODUCTION, UTILIZATION, CONSUMPTION, & TRADE 2-3 (prepared by Stephania Vannuccini) (Nov. 2004) [hereinafter OVERVIEW] (stating that 49% by value and 55% by quantity of the global fish production exports came from developing countries, while 18% of the world fishery import value was focused in developing countries).

<sup>7</sup> See World Trade Organization, Ministerial Declaration of 14 November 2001, WT/MIN(01)/DEC/1, 41 I.L.M. 746, 750 (2002) [hereinafter Doha Declaration] (declaring the conclusions reached in negotiations by the World Trade Organization ("WTO") at the Doha Ministerial Conference).

<sup>8</sup> See *infra* Section 5 and accompanying text.

<sup>9</sup> *Id.*

<sup>10</sup> The United Nations Convention on the Law of the Sea of 1982 ("UNCLOS") sought to rectify the problem by assigning property rights extending up to 200 miles into the sea to coastal nations, such that coastal nations would have an incentive to curb overfishing and develop methods to create a sustainable fish population. See *infra* Section 2 and accompanying text. However, in the subsequent 20 years, the number of overfished or depleted fish continued to rise with no foreseeable stopping point. See ASAHI, *supra* note 2 and accompanying text (outlining Japan's proposal on subsidies given to fisheries).

<sup>11</sup> See Margaret Borman, *Can Governments Encourage a Reduced Fish Harvest to Allow Global Stocks to Regenerate Their Numbers?*, 15 J. ENVTL. L. & LITIG. 127, 137 (2000) ("[because] many subsidies in place in the fisheries sector are effort-enhancing subsidies . . . it is not obviously economically advantageous for fishermen to reduce their catch . . . [despite] catch restrictions, sound management

rected toward funding and increasing fishing fleet construction are the most harmful to the global fishing industry because these subsidies most directly increase the capacity of the industry.<sup>12</sup>

While eradicating subsidies will not be a panacea for all of the fisheries' ills, it is an essential first step to eliminate overcapacity. In recognizing the problem and requiring nations to submit proposals for fisheries subsidies regulations, the WTO stands well-poised to confront the problem head-on. The WTO should now require WTO member nations to gradually yet completely eradicate all of those fisheries subsidies that contribute to overfishing, overcapacity, and the artificial distortion of the natural fishing market equilibrium.

This Comment is structured in five sections. Section 2 describes how the oceans suffer from the classic tragedy of the commons. Sections 3 and 4 will examine a previously implemented international response to overfishing and two threshold problems exacerbating the overfishing problem. In particular, these sections will consider the United Nations Convention on the Law of the Sea, and how technology and government subsidies thwart its purpose. Section 5 will consider the WTO's present response to overfishing and its mandate for WTO member nations to resolve the issue of fisheries subsidies. That section will focus on proposals from the European Union, the United States, Japan, and other WTO member nations, and considers how these proposals will further the goal of creating a sustainable fish population. The Comment will conclude by demonstrating how fisheries subsidies distort the natural market equilibrium and encourage industry entrants.

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plans, and international treaties") (citing Matteo Milazzo, *Subsidies in World Fisheries 1-2* (World Bank Technical Paper No. 406, 1998)).

<sup>12</sup> See Stone, *supra* note 4, at 513-515 (discussing the problem of overcapacity in the fishing industry); see also DAVID HUNTER ET AL., *INTERNATIONAL ENVIRONMENTAL LAW AND POLICY* 655 (2d ed. 2002) ("The use of government subsidies to build fleets with modern fishing technology (that now bears more resemblance to a vacuum cleaner than a fishing rod) has created a situation where too many boats are chasing too few fish.").

## 2. THE GENESIS OF OVERFISHING AND ITS IMPACT ON THE COMMERCIAL FISHING INDUSTRY

### 2.1. *The World's Oceans as a Classic "Tragedy of the Commons"*<sup>13</sup>

The world's oceans were historically, and are today, largely unregulated.<sup>14</sup> In his seminal article, Garret Hardin called this type of common property use a "tragedy of the commons," because each user acts in his best interest against the best interest of the collective group of users.<sup>15</sup> Hardin used a farm pasture as an example of why resources would not be maximized by people who shared the right to use a piece of land. Hardin first hypothesized that a pasture existed on which numerous farmers would graze their cattle. Hardin then assumed that more farmers would add additional cattle to the land and that at some point the number of cattle grazing would rise to the level at which the pasture could no longer sustain the number of grazing cattle, this being the moment of maximum capacity.<sup>16</sup>

But in Hardin's example, farmers would not stop adding grazing cattle to the land, because each farmer knows that even in light of the risk of over-grazing, if he does not add cattle, other farmers will and he will thus lose valuable feed for his cattle, and money from his pocket in both the short- and long-term.<sup>17</sup> In other words, he knows that what he leaves for his herd to graze today will not be there tomorrow. So he decides to continue to add cattle, such that he can at least maximize his short-term economic profits. The problem with this reasoning is that every other farmer reaches this same conclusion.

Thus begins the downward cycle of maximizing short-term economic profits at the expense of long-term viability of the pas-

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<sup>13</sup> Many have also called this type of problem a "collective action problem." See RICHARD L. REVESZ, FOUNDATIONS OF ENVIRONMENTAL LAW AND POLICY 3-18 (1997) (discussing the tragedy of the commons and the problem of social cost on environmental degradation).

<sup>14</sup> For a complete discussion of the history and background of our world's oceans, see HUNTER ET AL., *supra* note 12, at 655-60.

<sup>15</sup> Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

<sup>16</sup> See *id.* ("The implication is that the free market will treat open-access resources or public goods as being free. If the primary objective of the market participants is individual wealth maximization, the market's failure to place limits on use of the resource will invariably result in the degradation of that resource.").

<sup>17</sup> *Id.* at 1244.

ture. This cycle continues until the pasture is destroyed, overgrazed to the point at which it cannot re-grow and sustain any cattle. In Hardin's words, "[f]reedom in a commons brings ruin to all . . . ."<sup>18</sup>

This road leading to over-grazing, Hardin contended, could be eliminated if the pasture is privately owned.<sup>19</sup> In such a case, the private owner will have a long-term perspective because he need not fear that other farmers similarly situated will consume the land's resources. For this private owner, there will thus be no incentive to increase grazing capacity at the expense of the viability of long-term capacity.<sup>20</sup>

The world's oceans are akin to Hardin's pasture.<sup>21</sup> A commercial fisherman has every incentive to maximize his catch in the short-run. He knows that if he decides to consider the long-term viability of the fish population and limit his catch, other fishermen will not exercise the same restraint, and they in turn will reap a greater profit at the expense of depleting the fish population.<sup>22</sup> Just as Hardin's farmers could not risk losing both the short- and long-term economic advantage of the property, every fisherman in an open-access and unregulated ocean has an incentive to catch as many fish as he can.<sup>23</sup> There is—at the extreme—a race to catch the last fish.<sup>24</sup>

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<sup>18</sup> *Id.*

<sup>19</sup> *Id.* at 1245.

<sup>20</sup> *Id.*

<sup>21</sup> See Patrick A. Nickler, Comment, *A Tragedy of the Commons in Coastal Fisheries: Contending Prescriptions for Conservation, and the Case of the Atlantic Bluefin Tuna*, 26 B.C. ENVTL. AFF. L. REV. 549, 550 (1999) (analogizing fisheries to Hardin's pasture).

<sup>22</sup> See Hardin, *supra* note 15, at 1244 (stating that because "every rational herdsman sharing a commons" concludes that he bears only a portion of the costs associated with adding more cattle to the land, "[e]ach man is locked into a system that compels him to increase his herd without limit—in a world that it limited").

<sup>23</sup> See Nickler, *supra* note 21, at 552 (stating that fishermen inevitably yet rationally "partake in a 'race to fish'—each attempting to catch as many fish as economically feasible") (citing Anthony D. Scott, *Conceptual Origins of Rights Based Fishing*, in RIGHTS BASED FISHING 11, 27 (Philip A. Neher et al. eds., 1988)).

<sup>24</sup> It is generally accepted that there are four stages in the tragedy of the commons life-cycle: (1) discovery, (2) expansion, (3) overexploitation, and (4) collapse. Karen Hopfl, *Go Fish! Individual Transferable Quotas and International Possibilities in the South Pacific*, 8 COLO. J. OF INT'L ENVTL. L. & POL'Y 137 (1997).

## 2.2. *The Global Commercial Fishing Industry and Overfishing's Impact*

### 2.2.1. *The Potential Economic Impact of Further Overfishing*

The commercial fishing industry is a significant part of many countries' economies.<sup>25</sup> In the United States, for example, the commercial fishing industry contributes \$28 billion to the U.S.'s gross national product.<sup>26</sup> As a result of this positive impact on its economy, the U.S. has directed considerable resources toward carefully considering and creating sound ocean policy.<sup>27</sup>

The fishing industry is not only a large component of developed countries' economies such as the United States and Japan, but also many developing nations who rely heavily on fishing.<sup>28</sup> Developing countries composed forty-nine percent of world fishery commodities exports in 2002, up from forty-six percent in 1992.<sup>29</sup>

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<sup>25</sup> See OVERVIEW, *supra* note 6, at 2-3 (showing that in 2002 production of fish from aquaculture practices (as opposed to inland practices) rose to 93.2 million tonnes).

<sup>26</sup> See U.S. COMM'N ON OCEAN POLICY, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY (2004) (providing a final report on the Commission's findings and recommendations regarding national ocean policy). Interestingly, the average American consumes roughly 15.2 pounds of seafood per year. See PEW OCEANS COMM'N, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 55-68 (2003) (discussing the problems facing America's Oceans and making detailed recommendations), available at [http://www.pewtrusts.org/pdf/env\\_pew\\_oceans\\_final\\_report.pdf](http://www.pewtrusts.org/pdf/env_pew_oceans_final_report.pdf).

<sup>27</sup> In fact, the United States was one of the first nations to come forward with a government fisheries subsidies proposal in response to the WTO's Ministerial Declaration. See *infra* Part 5.1. In addition to its active discourse in WTO sessions, the U.S. Commission on Ocean Policy has recently set forth a long-term road map for U.S. ocean policy. See generally U.S. COMM'N ON OCEAN POLICY, *supra* note 26 (outlining the Commission's findings and recommendations regarding national ocean policy). The Pew Foundation, at the request of the US government, has also presented its recommendations for a healthy and sustainable ocean policy. See generally PEW OCEANS COMM'N, *supra* note 26 (making detailed recommendations for addressing the problems facing America's oceans). This active discourse by the United States demonstrates its commitment not only to creating sound domestic ocean policy but also to an international framework that creates and maintains a global sustainable fish population.

<sup>28</sup> See OVERVIEW, *supra* note 6, at 2 (concluding that "[t]he 86 Low-income Food-Deficit Countries . . . (LIFDCs) accounted for 20% of total fishery exports in value terms").

<sup>29</sup> See *id.* (demonstrating developing countries' increasing composition of the fishing market).

For these countries, the total value of the net-exports of fish—that is, the “receipts of foreign exchange for fishery commodities” less their imports—was over \$17 billion in 2002, an increase from \$4 billion in 1982.<sup>30</sup> This amount dwarfs the second highest net-export, coffee, which contributes to less than \$5 billion in 2002, and is greater than the combined net-exports of rice, cocoa, tobacco, and tea.<sup>31</sup>

### 2.2.2. *The Biological Impact of Overfishing*

Overfishing also poses a significant biological threat to the world’s oceans. Just as fishermen fail to consider the long-term consequences of overfishing at the benefit of short-term profit, they also disregard the long-term biological ramifications of overfishing. Atlantic halibut, for example, are “commercially extinct,” meaning that their population is so diminished that commercial fishermen cannot justify the expense of fishing for them.<sup>32</sup> Similarly, “by 1989, populations of New England cod, haddock, and yellowtail flounder had reached historic lows.”<sup>33</sup> Like these other species, the Atlantic bluefin tuna’s population has declined by ninety percent since 1975.<sup>34</sup>

## 3. ONE PREVIOUS INTERNATIONAL RESPONSE TO THE OVERFISHING PROBLEM

The overfishing problem has been an issue at the forefront of

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<sup>30</sup> *Id.*

<sup>31</sup> *See id.* at 17 (exploring the dramatic market for fishery commodities).

<sup>32</sup> PEW OCEANS COMM’N, *supra* note 26, at 2.

<sup>33</sup> *Id.*

<sup>34</sup> *See* Nickler, *supra* note 21, at 556 (documenting the devastation of the Atlantic bluefin tuna population). As Nickler demonstrates, the Atlantic bluefin tuna is a unique example of the perils of overfishing. The Atlantic bluefin is more severely harmed from overfishing due to two of its characteristics: its unusually long life-cycle and its unfortunate station as the most valuable fish in the world. The bluefin is consumed all over the world, particularly in Japanese restaurants. This demand has resulted in it being priced at over \$5 per pound. This value encourages fishermen to overfish the species which, in turn, results in a fishing race. Each fisherman reasons that what he leaves in the ocean today will not be there tomorrow. The Atlantic bluefin’s long life-cycle also plays a large role in its decline. It takes roughly eight years to mature. But such maturity is rare. The majority of bluefin caught are juvenile and have not reached the age at which they can reproduce and spawn subsequent generations of bluefin. Overfishing exacerbates these two problems. *See id.* at 555–75 (emphasizing that without remedies for overfishing, the Atlantic bluefin tuna is in danger of commercial extinction).

fisheries management for decades. In 1982, the United Nations Convention of the Law of the Sea ("UNCLOS")<sup>35</sup> was opened to coastal nations for signature and in 1984 UNCLOS became effective.<sup>36</sup> Recognizing the rapidly depleting fish population, UNCLOS expanded property rights for coastal nations. In so doing, UNCLOS sought to create an incentive for such nations to manage their ocean resources responsibly.<sup>37</sup>

Prior to UNCLOS, a coastal nation's sovereign rights in the ocean only extended three nautical miles from the coastline.<sup>38</sup> This area was, and is still, called the "territorial sea zone."<sup>39</sup> For the nations that ratified UNCLOS, UNCLOS expanded this zone from three nautical miles to twelve nautical miles.<sup>40</sup> UNCLOS also created two additional zones over which a ratifying coastal nation has exclusive rights: contiguous zones and exclusive economic zones ("EEZ").<sup>41</sup> These three zones—the territorial sea, the contiguous zone, and the exclusive economic zone—are measured from what UNCLOS calls the baseline.<sup>42</sup> The baseline is typically the low-water line along the coast, but "it can also be a line joining fringe islands, highly indented coast lines, or unstable coastlines."<sup>43</sup>

UNCLOS's contiguous zones expanded a coastal nation's rights twelve miles from the territorial sea zone to a maximum of twenty-

<sup>35</sup> United Nations Convention of the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

<sup>36</sup> HUNTER ET AL., *supra* note 12, at 659. Many other regulatory measures have also been previously proposed and implemented. See Stone, *supra* note 4, at 510 (detailing the lists of previous regulatory measures, which include "restrictions on quarry, locale, gear, and seasons, and more recently, experiments with tradable catch quotas"). Stone argues that such regulatory measures "have often proven inadequate and even perverse," and concludes that the problem rests with the nature of the world's oceans as a global commons, unregulated by any sovereign body. *Id.* at 511. These regulatory measures, however, deal principally with domestic fisheries management and consequently fall outside the scope of this Comment.

<sup>37</sup> See Borman, *supra* note 11, at 132 ("Part of the state's responsibility in these areas is to ensure that resources (fish) are harvested to the highest level while still maintaining the natural population.").

<sup>38</sup> See JOSEPH J. KALO ET AL., COASTAL AND OCEAN LAW 261 (2d ed. 1994) (detailing the historical meaning of the territorial sea zone).

<sup>39</sup> *Id.*

<sup>40</sup> UNCLOS, *supra* note 35, at arts. 33, 57.

<sup>41</sup> *Id.* at arts. 33, 57.

<sup>42</sup> *Id.* at art. 3.

<sup>43</sup> Borman, *supra* note 11, at 131 n. 38 (citing UNCLOS, *supra* note 35, at arts. 5, 7).



four miles from the baseline.<sup>44</sup> Within this zone and the territorial sea zone, a coastal nation has the right and “jurisdiction to prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations.”<sup>45</sup> UNCLOS further expanded these zones with its creation of EEZs.<sup>46</sup> In the EEZ, a coastal nation has the exclusive right, and jurisdiction to protect that right, to the resources “whether living or non-living” within 200 miles from the coastal baseline.<sup>47</sup> In sum, the effect of UNCLOS’s creation of these three zones was to assign coastal nations exclusive property rights to ocean resources within 200 miles of that nation’s sovereign border.<sup>48</sup>

UNCLOS also required coastal nations to maintain a sustainable fish population in these zones while they attempted to maximize the harvest amount.<sup>49</sup> Many coastal nations, however, failed to heed UNCLOS’s mandate. Instead, these countries shortsightedly exploited fish within their EEZ by adding new vessels to their own fleets and not developing long-term conservation plans.<sup>50</sup> The nations that did develop long-term plans almost universally developed such plans with the national economy as the most important focus, while glossing over the requirement to ensure the long-term viability of the fish population.<sup>51</sup>

This lack of a long-term plan places the overfishing problem back at square-one, because even within a nation’s EEZ, the fish stock is still being overfished and exploited.<sup>52</sup> The reason for this

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<sup>44</sup> UNCLOS, *supra* note 35, at art. 33.

<sup>45</sup> Borman, *supra* note 11, at 131–32 (internal quotation marks omitted) (quoting UNCLOS, *supra* note 35, at art. 33(1)(a)).

<sup>46</sup> UNCLOS, *supra* note 35, at art. 57.

<sup>47</sup> UNCLOS, *supra* note 35, at art. 56.

<sup>48</sup> Borman, *supra* note 11, at 132.

<sup>49</sup> UNCLOS, *supra* note 35, at art. 62.

<sup>50</sup> Borman, *supra* note 11, at 132.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* Additionally, migratory fish (fish which move between the exclusive economic zone (“EEZ”) of two or more nations) and straddling stocks (fish which co-exist both within a nation’s EEZ and the high seas) pose unique problems that UNCLOS fails to adequately address and that result in continued overfishing. Although article 63 of UNCLOS imposes an obligation to cooperate when a nation’s fisheries contains such fish—absent an agreement between the two or more impacted nations, the economic incentive for a coastal nation to maximize fish capacity is clear: the nation that has the migratory fish or straddling stock within its EEZ would want to catch as many fish as it can, lest the fish migrate to another nation’s EEZ or to the high seas and never return. Further exacerbating this problem, article 62 of UNCLOS requires that a coastal nation harvest its “entire allow-

unexpected result is simple: fishermen simply have no economic incentive to reduce their catch. What a fisherman fails to catch on Monday, he reasons, will be caught by another fisherman on Tuesday.<sup>53</sup> And so the overfishing problem persists, unabated.

#### 4. THE ROLE OF TECHNOLOGY AND GOVERNMENT SUBSIDIES IN THE OVERFISHING PROBLEM

While the overfishing problem cannot be diagnosed with one single explanation, there are at least two aggravating factors that undermine UNCLOS and various other agreements between nations: technological advances in fishing equipment and governments subsidizing their fishing industries.<sup>54</sup>

##### 4.1. Technology

With the progression of technological advances, twenty-first century fishing vessels are much better equipped to catch more fish in a shorter period of time than their antiquated counterparts.<sup>55</sup> One commentator has noted that fishing with twenty-first century technology is more akin to vacuuming than traditional notions of fishing with a rod, bait, and tackle.<sup>56</sup>

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able catch" within its EEZ. Some nations are unable to meet this requirement and must enter into treaties with other nations to allow those nations' vessels into its EEZ to harvest the excess stock. Several coastal nations have entered into treaties that seek to rectify these problems. For a discussion of three such treaties, see Borman, *supra* note 11, at 133-34.

<sup>53</sup> Borman, *supra* note 11, at 133 ; see also *supra* Section 2.1.

<sup>54</sup> See HUNTER ET AL., *supra* note 12, at 655 (stating that "[t]he use of government subsidies to build fleets with modern fishing technology . . . has created a situation where too many boats are chasing too few fish.").

<sup>55</sup> See Thomas A. Telesca, *Sovereignty or the Precautionary Principle: Which Will Save Our Fish?*, 12 SE. ENVTL. L.J. 23, 25-27 (Fall 2003) (explaining current fishermen's greater capacity to catch fish). Telesca puts technological advances into perspective:

Enhanced technologies have generated close to a fivefold increase in global fish catch since 1950. Modern trawlers can "haul nets large enough to swallow a formation of twelve Boeing 747 jumbo jets." These vessels can catch twice as much fish in [one] hour as a sixteenth-century ship could haul in a whole season.

*Id.* at 25 (quoting Colin Woodard, OCEAN'S END: TRAVELS THROUGH ENDANGERED SEAS 43 (2000)).

<sup>56</sup> See HUNTER ET AL., *supra* note 12, at 655 ("The use of government subsidies to build fleets with modern fishing technology (that now bears more resemblance to a vacuum cleaner than a fishing rod) has created a situation where too many boats are chasing too few fish.").

Not only do vessels directly contribute to depleted fish populations by catching and retaining more fish, but these technologically enhanced vessels also contribute indirectly to the overfishing problem by engaging in what is called a “bycatch” problem.<sup>57</sup> A bycatch problem occurs when fishing vessels catch fish above their legal quota and therefore throw dead or almost dead fish back to the sea.<sup>58</sup> Globally, it is estimated that fishermen throw back roughly sixty billion pounds of fish each year, roughly twenty-five percent of what they caught during the 1980s and the early 1990s.<sup>59</sup> Understanding how technological advances contribute to the overfishing problem is important because it underscores the need for international cooperation to rectify the problem.

#### 4.2. Government Subsidies

Many coastal nations subsidize their fishing industries. Typically, these subsidies take the form of “effort-enhancing subsidies . . . [which have the effect of] undermining natural market forces in fisheries.”<sup>60</sup> Rather than subsidizing the industry in such a way as to encourage fisheries to maintain a sustainable fish population, “these subsidies encourage ‘excess effort and capacity and [undermine] the sustainability of resources in the fisheries sector.’”<sup>61</sup>

Although estimates of subsidies vary considerably, the total number is large by any estimate. The World Bank estimates global fisheries subsidies at somewhere between \$14 to \$20 billion.<sup>62</sup> The Organization for Economic Cooperation and Development (“OECD”) and Asian-Pacific Economic Cooperation (“APEC”), by contrast, puts the estimate at just over \$12 billion.<sup>63</sup> But by any estimate, the number is significant—even enough to artificially dis-

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<sup>57</sup> See Telesca, *supra* note 55, at 26–27 (arguing that technology has exacerbated the overfishing problem by collaterally catching more, and different species of, fish than the fisherman intended to catch).

<sup>58</sup> See *id.* at 26 (reinforcing technology’s acceleration of the overfishing problem).

<sup>59</sup> See PEW OCEANS COMM’N, *supra* note 26, at 43 fig. 4 (giving statistical background to the progression of fishing technology).

<sup>60</sup> Borman, *supra* note 11, at 137.

<sup>61</sup> *Id.* at 137 (quoting Milazzo, *supra* note 11, at 12).

<sup>62</sup> Press Release, European Comm’n, WTO: Fisheries Subsidies—EU Tables Proposal for Sustainable Fishing (Apr. 22, 2003), available at [http://europa.eu.int/comm/fisheries/news\\_corner/press/inf03\\_13\\_en.htm](http://europa.eu.int/comm/fisheries/news_corner/press/inf03_13_en.htm).

<sup>63</sup> *Id.*

tort the natural fisheries market equilibrium, resulting in overfishing, overcapacity, and a clear path to the destruction of our world's fisheries.

#### 4.2.1. *Forms of Subsidies*

Subsidies take many different forms. Subsidies to the fishing industry have historically and presently taken the form of "grants, low-cost loans and loan guarantees for vessel construction and repair."<sup>64</sup> These subsidies include fuel discounts and support for fishermen's wages and fish prices, the purchase of new gear, and the construction of storage and processing plants.<sup>65</sup> In the United States alone, subsidies programs permit United States commercial fishing vessels to avoid approximately \$250 million worth of fuel taxes a year.<sup>66</sup>

#### 4.2.2. *United States Subsidies*

The influx of the United States' subsidies to its fishing industry was paradoxically borne out of the 1976 Fisheries Conservation Management Act. The impetus for this Act was the United States' concern about the number of foreign fishing vessels.<sup>67</sup> This act sought to eliminate such vessels from the United States' territorial sea zone.<sup>68</sup> In exchange for being able to exercise exclusive federal jurisdiction over the coastline, the United States offered subsidies to domestic commercial fishermen, largely in the form of loan guarantees for vessel construction.<sup>69</sup>

The United States continues to subsidize its fisheries today.<sup>70</sup> A 1999 report by the OECD, although now six years old, estimated that the United States directs \$1.1 billion dollars in subsidies annually to its domestic commercial fishing industry.<sup>71</sup>

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<sup>64</sup> Stone, *supra* note 4, at 515.

<sup>65</sup> *Id.*; see also Borman, *supra* note 11, at 137 ("The most common type of shipping subsidy worldwide is an exemption from fuel taxes.").

<sup>66</sup> Borman, *supra* note 11, at 137-38.

<sup>67</sup> See *id.* at 138 (stating that the purpose of the 1976 Fisheries Conservation Management Act was the acceleration and "elimination of foreign fleets from [the United States'] territorial sea").

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

<sup>70</sup> *Id.* For a list of the present United States subsidies programs, see *id.* at 138.

<sup>71</sup> European Comm'n, *supra* note 62.

#### 4.2.3. *Japanese and European Union Subsidies*

The Japanese government likewise directs massive amounts of subsidies to its commercial fishing industry. While the estimates of Japan's subsidies vary considerably, the low-end of the estimate is \$2.5 billion annually by the OECD,<sup>72</sup> and the high end is \$4 billion annually by the Fishing Agency of Japan.<sup>73</sup> Alone, Japan provides more than \$500 million dollars to fund vessel insurance and reinsurance programs.<sup>74</sup> Its subsidies also take the form of support for domestic marketing and fishing gear research.<sup>75</sup>

The European Union, too, highly subsidizes its fishing industry and contributes somewhere between \$530 million<sup>76</sup> and \$1.2 billion<sup>77</sup> annually. It focuses its subsidies on six major objectives: "adjustment of fishing effort, fleet renewal and modernization, processing and marketing, aquaculture, port facilities, and generic product promotion."<sup>78</sup>

### 5. WTO'S RESPONSE TO THE PROBLEM OF GOVERNMENT SUBSIDIES

In 2001, the WTO cast its line into the political ocean and formally recognized that overfishing is an enormous problem for sustaining fish populations in our world's oceans. Section 28 of the WTO's Ministerial Declaration provides that:

In the light of experience and of the increasing application of these instruments by members, we agree to negotiations aimed at clarifying and improving disciplines under the Agreement on Implementation on Article VI of the GATT 1994 and on Subsidies and Countervailing Measures, while preserving the basic concepts, principles, and effectiveness of these Agreements and their instruments and objectives, and taking into account the needs of developing and least-developed participants. In the initial phase of the negotiations, participants will indicate the provisions, including

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<sup>72</sup> *Id.*

<sup>73</sup> Milazzo, *supra* note 11, at 18.

<sup>74</sup> *Id.* at 19.

<sup>75</sup> *Id.*

<sup>76</sup> *Id.* at 21.

<sup>77</sup> See European Comm'n, *supra* note 62 (noting that the OECD study estimated that the amount of subsidies for the European Commission was \$1.2 billion).

<sup>78</sup> Milazzo, *supra* note 11, at 21.

disciplines on trade distorting practices, that they seek to clarify and improve in the subsequent phase. In the context of these negotiations, *participants shall also aim to clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries.*<sup>79</sup>

This declaration underscores the WTO's concern that global government subsidies are undermining all nations' efforts to create sustainable fish populations in our world's oceans. Implicit in this declaration is the WTO's recognition that a global dialogue will be beneficial to not only all the fishing industries of all WTO members, but also to having a sustainable fish population for other smaller, developing, non-WTO member nations.

The necessary dialogue has recently begun and WTO member nations have started submitting proposals. This Comment will now consider proposals from the United States, the European Union, Japan, and several other WTO member nations, followed by an analysis of each.

### 5.1. *The United States' Proposal*

The United States' proposal calls on WTO members to eradicate all subsidies that contribute to overfishing.<sup>80</sup> In defining such subsidies that fall into this category, the United States adopts a modified version of the "traffic light" approach.<sup>81</sup> Under the

<sup>79</sup> Doha Declaration, *supra* note 7, ¶ 28 (emphasis added).

<sup>80</sup> WTO Negotiating Group on Rules, *Communication from the United States: Possible Approaches to Improved Disciplines on Fisheries Subsidies*, ¶ 3, TN/RL/W/77 (Mar. 19, 2003), available at [http://www.ustr.gov/asets/Trade\\_Sectors/Environment/Environmental\\_Submissions\\_to\\_WTO/asset\\_upload\\_file74\\_5970.pdf](http://www.ustr.gov/asets/Trade_Sectors/Environment/Environmental_Submissions_to_WTO/asset_upload_file74_5970.pdf) [hereinafter *Communication from the United States*].

<sup>81</sup> See Marc Benitah, *Ongoing WTO Negotiations on Fisheries Subsidies*, ASIL INSIGHTS, June 2004, ¶¶ 12-13, <http://www.asil.org/insights/insigh136.htm> (explaining that the "traffic light" approach involves placing subsidies into one of three boxes: red (forbidden subsidies), green (permitted subsidies), or amber (slow down, meaning subsidies may be subjected to complaint on the basis of the adverse trade effects)). The WTO at present has not imposed any specific provisions regarding fisheries subsidies. In these situations, the WTO default subsidies rules govern. *Id.* ¶ 3. These rules are found in the WTO Subsidies Agreement ("SCM Agreement"), which employs a traffic light approach. *Id.* ¶ 12. The United States approach is meant to mirror this approach in an effort to provide consistency among various WTO regulations. Another approach is what one commentator has called the "no need for a special fisheries subsidies regime" approach. *Id.* ¶ 5. This approach is exactly as it sounds: subsidies to regulate international fisheries are unnecessary. *Id.* ¶ 6. This approach was originally proposed by Korea and Japan. See *id.* ¶ 5 (stating that Japan and South Korea, which heavily sub-

United States version of this approach, the United States suggests that in addition to “red light” subsidies (prohibited), there are also “dark amber” subsidies (seriously prejudicial and presumptively harmful).<sup>82</sup>

The United States’ proposal defines its category of “red light” subsidies as those subsidies that “directly promote overcapacity and overfishing, or have other direct trade-distorting effects.”<sup>83</sup> The United States suggests that these subsidies could be categorized either by the type of program (that is, the programs “that are deemed to result in overcapacity or overfishing”), or “by the fishery that they benefit” (that is, the subsidies “that contribute to overcapacity and overfishing in fisheries that are already overfished”).<sup>84</sup> Regardless of whether the WTO adopts the former or latter approach, the United States proposes that these types of subsidies be categorically eradicated.<sup>85</sup>

Subsidies that fall into the “dark amber” category are those subsidies that would be “presumed to be harmful unless the subsidizing government could affirmatively demonstrate that no overcapacity/overfishing or other adverse trade effects have resulted from the subsidy.”<sup>86</sup> If no such rebuttal were made by the issuing nation, these subsidies would contravene the WTO international agreement. An example of a subsidy that falls within this category is a subsidy that is directed toward increasing the nation’s annual catch. Even a subsidy that is directed at, for example, certain types of increased fishing output could be rebutted by an adequate showing that the target area of the fishing is not overfished—in other words, that the fish population in the target fishery is sustainable.<sup>87</sup>

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sidize their fisheries “favor this approach”). Having apparently recognized the overwhelming international force against such an approach, both countries have entirely abandoned this proposal. See discussion *infra* Section 4.3.

<sup>82</sup> *Communication from the United States*, *supra* note 80, ¶¶ 5–6. The United States makes no reference to a green light category, but it has been suggested that the United States’ proposal implicitly recognizes that some fisheries subsidies, such as those that help reduce overfishing and overcapacity, would be continued to be permitted. See Benitah, *supra* note 81, ¶ 16 (stating that the U.S. recognizes that certain government programs may help reduce overcapacity and overfishing and contribute to fisheries substantially).

<sup>83</sup> *Communication from the United States*, *supra* note 80, ¶ 5.

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> *Id.* ¶ 6.

<sup>87</sup> See *id.* (giving examples of how to rebut the presumption).

Regardless of the category into which the type of subsidy falls, a hallmark of the United States' proposal is notification and transparency of each nation's subsidies. The United States urges the WTO to adopt a system in which data are made readily available for member nations to analyze and assess fellow member nations' level of subsidies. To this end, the United States proposes that one possible solution is to require member nations to provide "detailed fishery-specific information, including information about relevant management regimes."<sup>88</sup>

### 5.2. *The European Union's Proposal*

In its proposal, the European Union first defines the ultimate aim of WTO fisheries subsidies rules: "to match capacity to the available fish and so contribute to the sustainable exploitation of fishery resources."<sup>89</sup> The European Union then proposes a traffic light approach, but defines its color categories slightly different than the United States.<sup>90</sup> Its proposal calls for a complete eradication of capacity enhancing subsidies, which it defines as "[s]ubsidies for marine fishing fleet renewal (e.g. construction of vessels, increase in fishing capacity); and subsidies for the permanent transfer of fishing vessels to third countries, including through the creation of joint enterprises with third country partners."<sup>91</sup>

Unlike the United States' proposal, the European Union specifically identifies a "green light" category, those subsidies that, it proposes, should be permitted under the WTO rules.<sup>92</sup> It defines these green light subsidies as those that "are necessary in order to achieve the objective of reducing fishing capacity, and to mitigate social and economic consequences of the restructuring of the fisheries sector."<sup>93</sup> Examples of subsidies that fall into this category would be:

- Subsidies to support the retraining of fishermen, early retirement schemes and diversification.

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<sup>88</sup> *Id.* ¶ 7.

<sup>89</sup> WTO Negotiating Group on Rules, *Submission of the European Communities: Fisheries Subsidies*, ¶ 4, TN/RL/W/82 (Apr. 23, 2003) [hereinafter *Submission of the EC*].

<sup>90</sup> *See id.* (proposing a policy in line with the SCM agreement).

<sup>91</sup> *Id.*

<sup>92</sup> *See id.* (using "[p]ermitted fisheries subsidies" language rather than traffic light language).

<sup>93</sup> *Id.*



- Limited subsidies for modernization of fishing vessels to improve safety, product quality or working conditions or to promote more environmentally friendly fishing methods.
- Subsidies to fishermen and vessel owners who have to temporarily stop their fishing activity, when stoppages are due to unforeseeable circumstances such as natural disasters, or in the framework of tie-up schemes linked to permanent capacity reduction measures in the context of recovery plans for overexploited fish stocks.
- Subsidies for the scrapping of vessels and the withdrawal of capacity.<sup>94</sup>

The European proposal does not define a dark amber category, as the United States does.

In addition, the European Union's proposal makes an exemption for developing countries, recognizing that a blanket rule for all countries would be improper.<sup>95</sup> While noting that the development of fisheries rules should be a global endeavor, it recognizes that "more needs to be done to allow developing country members to achieve legitimate development goals."<sup>96</sup> Without elaborating, the European Union states that it "is prepared to engage constructively in drawing up rules . . . which take special account of the distinct needs of developing countries in fisheries."<sup>97</sup>

The European Union's proposal heavily stresses that transparency with regard to subsidies should be of utmost concern in fisheries subsidies negotiations.<sup>98</sup> In order to deal effectively with the problem of fisheries subsidies, the European Union proposes that in order to be in compliance with any ultimate WTO subsidies rules, a member nation should have to notify the WTO Committee on Subsidies and Countervailing Measures, and the Secretariat of that Committee would then keep a "scorecard," which would be made publicly available.<sup>99</sup>

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<sup>94</sup> *Id.*

<sup>95</sup> *Submission of the EC, supra* note 89, ¶ 4.

<sup>96</sup> *Id.* ¶ 6.

<sup>97</sup> *Id.*

<sup>98</sup> *Id.* ¶ 7.

<sup>99</sup> *Id.*

### 5.3. Japan's Proposal

Japan, too, proposes a traffic light approach.<sup>100</sup> As an initial matter, however, Japan points out that "any real causality between fisheries subsidies and trade distortion has yet been presented."<sup>101</sup> In so stating, it asserts that instead of "spending time for fruitless discussions on trade distortion caused by fisheries subsidies, it is much more important to realize the conservation and sustainable utilization of fisheries resources in order to secure the food sources for the future generation."<sup>102</sup>

Similar to the European Union, Japan defines only a green and a red light category, but Japan defines those subsidies differently than both the United States and the European Union. Under its green light category, which it defines as fisheries subsidies that "promote the conservation and sustainable utilization of fisheries resources," it enumerates various subsidies: for vessel reduction; for research on and the enhancement of fisheries resources; for the "conservation and improvement of habitats of fisheries resources;" for the monitoring, control, and surveillance of fisheries resources; for the "development and diffusion of new technologies to reduce the catch of unintended small fish or untargeted species;" and for the "protection of [the] environment."<sup>103</sup>

Japan proposes a definition of red light or prohibited subsidies such as the following: illegal, unregulated, and unreported ("IUU") subsidies and those subsidies that contribute to overcapacity.<sup>104</sup> IUU subsidies, as defined by Japan, are those subsidies that "do not abide by management rules set by national or international authorities, [are] not regulated, and [are] not report[ed]."<sup>105</sup> An example of such a subsidy is an operation that transfers a fishing vessel's registration to another country in order to evade an international agreement, while still operating within the original

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<sup>100</sup> WTO Negotiating Group on Rules, *Paper by Japan: Proposal on Fisheries Subsidies*, ¶¶ 6-13, TN/RL/W/164 (Sept. 27, 2004) [hereinafter *Paper by Japan*]. Japan asserted that there was no need for the WTO to develop fisheries subsidies regulations, stating that it would oppose any approach to regulate subsidies. See *supra* note 81 and accompanying text.

<sup>101</sup> *Paper by Japan*, *supra* note 100, ¶ 5.

<sup>102</sup> *Id.* (emphasis omitted).

<sup>103</sup> *Id.* ¶ 7.

<sup>104</sup> *Id.* ¶ 9.

<sup>105</sup> *Id.* ¶ 10.

country.<sup>106</sup>

As for its rejection of subsidies that contribute to overcapacity, while recognizing that “vessel construction subsidies are the centre of the problem,” Japan asserts that not all subsidies directed toward construction will adversely impact the fish population.<sup>107</sup> Only those subsidies for vessels engaged in “poorly managed fisheries,” it asserts, should be prohibited.<sup>108</sup> Thus, if the fishery is “properly managed” and if subsidies will not result in the increase of total fishing capacity, it asserts that “these subsidies for vessel construction should be permitted as they do not result in the deterioration of resources.”<sup>109</sup> A properly managed fishery, according to Japan, is one that

(a) . . . abide[s] by its management regulation, in [the] case of the fisheries which target the resource subject to the management of an [sic] regional fisheries management organization, or

(b) when the fishing activities are managed under effective resources management framework such as licensing and community-based management based on a proper evaluation of the resource, in other cases.<sup>110</sup>

Japan, like the European Union, also makes a concession for developing countries.<sup>111</sup> It asserts that “it is important to balance the conservation of resources and sustainable utilization considering the fact that some developing countries are among the world’s largest fishing and/or fisheries products exporting countries.”<sup>112</sup>

#### 5.4. Other WTO Member Nations

The other WTO member nations that have submitted proposals fall within one of the above three approaches within the traffic light approach.<sup>113</sup> New Zealand, for example, follows the Euro-

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<sup>106</sup> *Id.*

<sup>107</sup> *Paper by Japan, supra* note 100, ¶ 13.

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> *Id.* (emphasis omitted).

<sup>111</sup> *Id.* ¶16.

<sup>112</sup> *Id.*

<sup>113</sup> *See, e.g.,* WTO Negotiating Group on Rules, *Questions and Comments from Korea on New Zealand’s Communication on Fisheries Subsidies (TN/RL/W/154)*, ¶ 9,

pean Union approach, insofar as it does not include an amber category.<sup>114</sup> New Zealand, however, defines their red and green light categories differently.<sup>115</sup> It states that green light categories would only include "limited and defined exceptions."<sup>116</sup> By contrast, its red light category would not be so carefully defined.<sup>117</sup> It has only proposed two tests for the WTO to construct this category: either forbid those subsidies that reduce fixed or variable costs, or forbid those subsidies that enhance revenues or incomes.<sup>118</sup>

### 5.5. *Analysis of the Impact of Subsidies on Fish Population Conservation*

The magnitude of global fisheries subsidies leaves little doubt that such subsidies remain a large force in the overfishing problem. Whether it is subsidies for vessel construction or modernization, or subsidies for domestic marketing—these subsidies plainly contribute to the artificial growth of the global fishing industry. In so doing, these subsidies play an indisputable role in creating an unsustainable fish population and biological damage in the form of inducing possible premature extinction.

Subsidies are derived from coastal nations' desire to promote domestic growth in the industry.<sup>119</sup> As the industry is mature and saturated with fishermen, however, these subsidies artificially distort the natural market equilibrium that would otherwise curb overfishing.<sup>120</sup> Consider the following garden variety supply-and-demand model: the worldwide removal of subsidies for fishermen

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TN/RL/W/160 (June 8, 2004) (echoing Japan's assertion that "[s]ubsidies do not inevitably contribute to resource depletion; nor are they inherently good or bad.").

<sup>114</sup> See WTO Negotiating Group on Rules, *Communication from New Zealand: Fisheries Subsidies: Overcapacity and Overexploitation*, ¶¶ 2, 14, TN/RL/W/154 (Apr. 26, 2004) (describing New Zealand's acceptance of prohibitions including exceptions and transitional provisions).

<sup>115</sup> See *id.* (emphasizing New Zealand's broad category definitions).

<sup>116</sup> *Id.* ¶ 14.

<sup>117</sup> *Id.* ¶ 2-3. (detailing three possible approaches to defining New Zealand's red light categories).

<sup>118</sup> *Id.* ¶ 6 (quoting WTO Comm. on Trade and Environment, *Communication from the United States: Environmentally-Harmful and Trade-Distorting Subsidies in Fisheries*, ¶ 8, WTT/CTE/W/154 (July 4, 2000)).

<sup>119</sup> See, e.g., discussion *supra* Section 3.2.2; see also Borman, *supra* note 11, at 139 ("Subsidies originated as a way to encourage growth in the industry.").

<sup>120</sup> See Stone, *supra* note 4, at 514 (demonstrating that "[s]ubsidization lowers private costs at public expense, thereby increasing the investment in fishing beyond the level that market signals would warrant").

would increase fish prices globally because fishermen would be unable to rely on government funding for many operating costs, such as marketing or vessel construction and maintenance. In order to maintain a profit margin, fishermen would consequently raise prices to cover those operating costs previously subsidized by their government. With a higher price, consumers would on balance buy less fish.<sup>121</sup> Seeing this decreased consumption, fishermen would in turn cut back on their catch in order to prevent waste in the form of unsold fish. In short, the market would naturally begin to correct itself.

Another large problem with granting subsidies is that they encourage entrants into the fishing industry.<sup>122</sup> A commercial fisherman contemplating whether to enter the market will perform an analysis of potential profits and begin with the assumption that government subsidies will cover a certain percentage of his operating costs. This fact alone makes the fishing industry appear more desirable, inducing people to enter it. The natural extension of this observation is that more boats will be fishing the same overfished and depleted stock.

In making this blanket statement about the negative effects of subsidies on the overfishing problem, let us be clear that not all subsidies contribute to overfishing.<sup>123</sup> That is to say that there are some subsidies that are positive for the fishing industry—namely, those subsidies that do not encourage a greater catch and growth in the fishing industry.<sup>124</sup> For example, positive subsidies could provide interim support for fishermen while the negative subsidies are phased out.<sup>125</sup> Alternatively, positive subsidies could be di-

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<sup>121</sup> The decrease in demand at the higher price depends on the elasticity of the demand of fish. The less elasticity that exists within the demand curve, the less likely it will be that consumers will demand less fish at the increased price. Correspondingly, the more elasticity there is in the demand curve, the more likely it is that consumers will demand less fish at the increased price. Even assuming that the fishing industry is rather inelastic—because, for example, if large numbers of Americans are reluctant to give up their sushi and sashimi—there will still be lower demand as the price increases; the decrease in demand simply may not be as large.

<sup>122</sup> Stone, *supra* note 4, at 514.

<sup>123</sup> See Borman, *supra* note 11, at 140 (explaining that some subsidies allow the fishing industry to rely less on government subsidies).

<sup>124</sup> See *id.* (emphasizing how subsidies may initiate a reduction of activity within the fishing industry).

<sup>125</sup> See Stone, *supra* note 4, at 534 (addressing the presence of catch-reducing subsidies).

rected towards paying fishermen to “decommission, scrap, or temporarily lay up their vessels.”<sup>126</sup> The distinction between negative and positive subsidies is especially important when considering regulations governing subsidies because completely abolishing subsidies would have an enormously negative impact on the fishing industry.<sup>127</sup> By immediately forcing fishermen to cover their entire operating costs, governments would decimate the fishing industry.

How should the WTO handle Japan’s proposal of permitting “research” subsidies? Before we answer that question, consider Japan’s history under the international whaling ban. In 1986, the International Whaling Commission imposed a worldwide moratorium on harvesting minke and other species of whale.<sup>128</sup> Despite the moratorium, Japan (and other countries, including Norway and Iceland) has allowed its fleets to kill at least several hundred whales each year<sup>129</sup> under an exception in the moratorium allowing hunting for “research.”<sup>130</sup> The fatal flaw with Japan’s reliance on

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<sup>126</sup> *Id.*

<sup>127</sup> See Borman, *supra* note 11, at 140 (explaining that subsidies could solve this problem, as “positive subsidies could be used to wean the industry off government support through a gradual fade-out, leaving behind an infrastructure capable of sustainable fisheries management”).

<sup>128</sup> See Thomas Kenworthy, *No U.S. Sanctions Against Norway*, WASH. POST, Oct. 5, 1993, at A27 (describing the International Whaling Commission’s worldwide ban).

<sup>129</sup> See INSTITUTE OF CETACEAN RESEARCH, JAPAN’S WHALE RESEARCH PROGRAM UNDER SPECIAL PERMIT IN THE ANTARCTIC (JARPA) 14 (2d ed. 2005), <http://www.icrwhale.org/04-B-len.pdf> (listing in table format the actual number of whales taken by Japanese whaling vessels during each of whaling seasons from 1987 to 2004). In fact, Japan announced at the International Whaling Commission in June of 2005 that it intends to more than double its whale take in the 2005–06 whaling season from roughly 400±10% to 850±10%. See GOVERNMENT OF JAPAN, PLAN FOR THE SECOND PHASE OF THE JAPANESE WHALE RESEARCH PROGRAM UNDER SPECIAL PERMIT IN THE ANTARCTIC (JARPA II)—MONITORING OF THE ANTARCTIC ECOSYSTEM AND DEVELOPMENT OF NEW MANAGEMENT OBJECTIVES FOR WHALE RESOURCES (July 14, 2004) (stating that the Government of Japan intends to take 850±10% during each of the 2005–6 and 2006–7 whaling seasons).

<sup>130</sup> See International Convention for the Regulation of Whaling art. VIII(1), Dec. 2, 1946, 10 U.S.T. 952, 16 U.N.T.S. 72. This agreement states:

[A government that is a member of the Convention] may grant to any of its nationals a special permit authorizing that national to kill, take, and treat whales for purposes of scientific research subject to such restrictions as to number and subject to such other conditions as the [government] thinks fit, and the killing, taking, and treating of whales in accordance with the provisions of this Article shall be exempt from the operation of this Convention.

this exemption from the general moratorium is that the whale products from “research” hunts are being sold at a profit.<sup>131</sup> Thus, by almost universal consensus, the so-called “research” exception to the moratorium is effectively a loophole through which Japan’s commercial fishing fleet continues to hunt whale and, by extension, unfairly profit.<sup>132</sup>

The question then becomes whether the benefits of allowing a so-called “research” exception outweigh the risk of a nation classifying prohibited subsidies under the auspices of “research” subsidies. Given Japan’s use of “research” subsidies to support whaling subversively, the answer should be an unequivocal “no.” The cost of constant policing and enforcement measures to comply with subsidies classification would mitigate, or worse, effectively eliminate any benefit or incentive to impose such subsidy regulations. If the WTO does not enforce the rules, the rules will almost certainly lose their force. Moreover, Japan has every incentive to construe the rules in its favor. Japan subsidizes its fishing industry more than any other nation.<sup>133</sup> Japan has also shown its opposition to any regulation of fisheries subsidies.<sup>134</sup> The WTO should not permit subsidies for “research” because of such abuses.

The WTO should thus adopt a bright-line rule with regard to fisheries subsidies, especially those that could potentially fall under the heading of “research.” Eliminating all legal ambiguity would likewise eliminate any costs associated with policing compliance under a WTO scheme that would permit “research” subsidies.

The WTO should also gradually phase in subsidies regulations. For decades, fishermen relied on subsidies, and a complete and instantaneous eradication would destroy the global fishing industry. For example, a fisherman that one month has an interest-free loan for his fleet could not incur a one hundred and ten percent increase in his operating costs the next month without immediately having to file for bankruptcy protection. A gradual phase-in of regula-

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<sup>131</sup> See Andrew C. Revkin, *Save the Whales! Then What?*, N.Y. TIMES, Aug. 17, 2004, at F1 (reporting on Japan’s behavior of selling whale meat that was hunted under a research exemption).

<sup>132</sup> See *id.* (“Critics say the research, which is not reviewed by peers, is a sham.”).

<sup>133</sup> See discussion *supra* Section 4.2.3 (identifying Japan as the leading subsidizer of the fishing industry internationally).

<sup>134</sup> See *supra* note 81 and accompanying text (describing Japan’s resistance to regulation of its fishing industry).

tions is broadly accepted in the WTO member nations' proposals. The WTO should allow a gradual phase-in of subsidies reduction over a period of time in order to afford fishermen the opportunity to modify their fishing behavior accordingly.

Some countries who are reluctant to abandon subsidies may argue that fish stocks are not actually depleted, and that the status quo should remain pending the results of conclusive research. More specifically, such proponents may argue that, because their shipping fleets have not endured a decrease in catch, environmentalists are fabricating and exaggerating the overfishing problem. The evidence, however, completely belies this assertion. Numerous independent studies have determined that present fishing rates are unsustainable.<sup>135</sup> While estimates vary, the number of depleted and overfished species is large by consensus.<sup>136</sup> Thus, any suggestion that overfishing is not a large problem facing our global commons must be rejected out of hand.

## 6. CONCLUSION

The present lack of WTO regulations for global fisheries subsidies in the global commons is a recipe for disaster. The stakes in global fisheries subsidies are extremely high, not only because the fishing industry is an integral part of many nations' economies, but also because of the overfishing problem's magnitude.<sup>137</sup> Although previous international plans to reduce overcapacity in fisheries have been carefully considered and implemented, the effectiveness of such plans has been undermined by nations continuing to subsidize their commercial fishing industries. The WTO's elimination of those subsidies that contribute to overcapacity is a necessary and critical first step in rectifying the overfishing problem. The evidence that a WTO mandate is needed to require nations to eliminate fisheries subsidies is clear and unambiguous. Ninety percent of the large fish population is overfished or depleted. Fisheries subsidies contribute to overcapacity and distort the natural market equilibrium of the industry. These subsidies undermine many previously proposed and implemented governmental mechanisms to cope with overcapacity. Additionally, by minimiz-

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<sup>135</sup> See discussion *supra* Sections 1, 2.2.2.

<sup>136</sup> See discussion *supra* Section 2.2.2.

<sup>137</sup> See Stone, *supra* note 4, at 536 ("Fish are one of the world's major traded products.").



ing operating costs, subsidies encourage new industry entrants who further aggravate the overfishing problem. Admittedly, gradually eliminating all fisheries subsidies that contribute to overcapacity and overfishing will not be a cure for all of the oceans' ills. Nonetheless, the eradication of subsidies is an essential step in reducing overcapacity.

The WTO is now well-poised to implement a strategy to cope with the overfishing problem. WTO member nations have cast their baited lures into the political ocean in the form of proposals for subsidies reform. Such proposals typically recognize the need for fisheries subsidies regulations internationally. The WTO should require all WTO member nations to make a gradual, yet complete, eradication of those subsidies that contribute to overcapacity, especially those subsidies that are directed toward vessel construction. Moreover, given Japan's history of abusing research exemptions, the WTO should specifically reject Japan's proposal of allowing "research" subsidies.

Subsidies eradication is only the first step in rectifying the overfishing problem. Once the WTO tackles the subsidies issue, the next—and perhaps more difficult—hurdle will be allocating fishing rights to our world's oceans among individual nations.