In 2007, the Marine Fish Conservation Network assessed the state of chronic overfishing in the nation’s fisheries in its report entitled “Taking Stock: The Cure for Chronic Overfishing.” That report documented that, as of 2006, 49 major U.S. fish stocks had been subject to unsustainable rates of fishing for at least six out of nine years since 1998, when the National Marine Service (NMFS) began annual reporting on the overfishing status of America’s fishery resources. Despite the inclusion of fishery management reforms in the Magnuson-Stevens Act (MSA) of 1996 aimed at ending overfishing, Taking Stock showed limited progress in reducing the practice and found numerous instances of chronic overfishing that continued unabated year after year.

With the passage of the Magnuson-Stevens Reauthorization Act (MSRA) of 2006, Congress added new requirements for annual catch limits (ACLs) and accountability measures (AMs) with the intent of providing a transparent accounting mechanism to measure compliance with the MSA’s requirements to prevent overfishing and rebuild overfished stocks.1 When President Bush signed the MSRA into law in January 2007, it seemed possible that managers might end overfishing by the Act’s 2010 deadline for ACLs to be in place for all stocks known to be experiencing overfishing.

Based on the final Status of Stocks update from NMFS in December 2010, however, it is clear that overfishing stubbornly persists; fully one in five of the major fishery stocks that could be assessed were still subject to overfishing.2 Although there are fewer stocks subject to overfishing in 2010 than in 2006, and fishery managers continue to make progress in rebuilding overfished populations, overfishing continues to be a chronic problem and many stocks remain overfished:

- At the end of 2010, 40 stocks were reported to be subject to overfishing, including Southern New England windowpane flounder, Georges Bank winter flounder, South Atlantic red snapper and associated species, Gulf of Mexico gag, gray triggerfish and red snapper, Caribbean parrotfishes, snappers and groupers, and Pacific bluefin and bigeye tuna.

- Of the 49 major stocks experiencing chronic overfishing at the end of 2006, as defined in the Network’s 2007 report, 24 were still subject to chronic overfishing at the end of 2010 and 4 additional stocks had joined the ranks of chronic overfishing. The Network’s definition of “chronic” in this report includes stocks subject to overfishing for 8 out of 13 years in the reporting time series from 1998-2010 (See Table 1).

- At the end of 2010, 15 of the stocks that were subject to chronic overfishing in 2006 were no longer subject to overfishing. In addition, 13 chronically overfished stocks showed enough improvement to be classified as “not overfished.”

However, while NMFS and the regional fishery management councils (Councils) clearly have much work to do to achieve the legislatively mandated “end to overfishing,” they are making significant progress in amending their fishery management plans (FMPs) to comply with the MSRA’s deadline for implementing
ACLs in all U.S. fisheries that prevent overfishing by the end of 2011. ACL amendments to FMPs with stocks subject to overfishing are now in place and implementation of ACLs for all other fishery stocks is well underway. With the establishment of a system of catch limits and accountability measures in all U.S. fisheries, fishery managers are putting in place a responsive, adaptive and flexible framework that can achieve the MSA’s goal of ending overfishing.

This report reaffirms that catch limits effectively prevent overfishing where they have been implemented and where accountability measures are in place to halt overfishing promptly if it should occur. In regions where Councils have tackled the problem with swift action to adjust catch limits accordingly, stocks have come off the list of those subject to overfishing. Moreover, with the adoption of rebuilding programs that establish catch limits and accountability for staying within the limit, overfished stocks have begun to recover — since the 2007 report, 11 have achieved their rebuilding goals and another 10 have rebuilt to 80 percent of maximum sustainable levels.  

Encouraging progress has been made in restoring overfished fish populations and reducing chronic overfishing, but this update to Taking Stock indicates that much remains to be done to make good on the promise of ending overfishing. Congress must allow the conservation reforms of the MSRA to work as intended and provide adequate funding to support vital data collection, catch monitoring, and stock assessment science which provide the basis for sustainable management and informed decision-making in the catch-setting process. These investments reduce risk and improve predictability of fisheries management, which is good for business. Ending overfishing is an investment in the conservation of our fisheries that we cannot afford not to make in the interest of ensuring the sustainability of the nation’s marine fisheries for the benefit of present and future generations.
Until the end of the 20th century there were few limits on most ocean fisheries. As a result overfishing has depleted many marine fish populations in territorial U.S. waters and around the world.\(^4\) Overfishing is considered by many to be the single biggest threat to marine biodiversity and ecosystems worldwide,\(^5\) but the complex biological, technological, economic and social dimensions of the problem have made efforts to prevent it exceedingly difficult.

**Technically speaking, when a fishery removes fish from a population at a faster rate than it is capable of replenishing its reproductive stock to a level that will produce maximum sustainable yield (MSY), that stock experiences overfishing.** (MSY is considered the largest average catch that can be taken on a continuing basis from a stock under prevailing environmental conditions without impairing its long-term productivity.) If allowed to continue for a long period, overfishing can cause profound changes not only in the productivity and abundance of the target fish population but also in the marine ecosystem. Numerous scientific reports, congressional hearings, and journal articles have identified overfishing as a persistent problem in U.S. fisheries for decades.\(^7\) The predictable result is that many depleted fish populations have not recovered and fisheries fail to realize their long-term potential yield.

Achieving sustainable use of fisheries resources for U.S. fishermen has been the goal of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) since its passage in 1976. This is reflected in National Standard 1 (NS1) of the Act. NS1 stipulates that “conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.”\(^8\) For the first 20 years under the MSA, the law required fishery managers at the regional Councils to define overfishing for managed species and stipulated that they should prevent overfishing. But neither the law nor federal agency guidelines from NMFS explicitly compelled the regional fishery managers to halt the practice. The result was chronic overfishing and fleet overcapacity that reached crisis proportions in many fisheries by the 1990s, including New England cod, Gulf of Mexico red snapper and Pacific Coast rockfish.

Despite the reforms to the MSA in 1996, (known as the Sustainable Fisheries Act, or SFA) aimed at ending overfishing, fishery managers frequently ignored scientific advice and unsustainable levels of fishing were permitted to continue without hard catch limits in many U.S. fisheries. Even where rebuilding plans were developed, lack of accountability for staying within catch limits and short-term economic considerations often meant that stocks failed to recover or timelines for recovery stretched so far into the future as to be meaningless. In mixed-stock fisheries comprised of multiple species, such as assemblages of bottom-dwelling...
groundfish or coral reef-associated fish, failure to control fishing mortality often led to overfishing of other vulnerable species.

The failure to end overfishing was a prime motivator for the 2006 reauthorization of the MSA, spurred on by two blue-ribbon commissions created to assess the health of America’s oceans. Ending overfishing was the highest priority of the Magnuson-Stevens Reauthorization Act (MSRA), a bipartisan legislative effort signed into law by President Bush in January 2007.

The MSRA’s approach to ending overfishing builds upon and strengthens the 1996 amendments on overfishing because Congress believed that the basic provisions were sound. To close the loopholes which had enabled fishery managers to permit overfishing to continue, Congress adopted key recommendations from the U.S. Commission on Ocean Policy (2004). These included the requirement to establish annual catch limits (ACLs) in all U.S. fisheries with mechanisms to ensure accountability for staying within the limits, as well as the requirement that the Councils’ Scientific and Statistical Committees (SSCs) must make fishing level recommendations for Acceptable Biological Catch (ABC). This catch level serves as the upper limit on Council specification of an ACL.

The MSRA also included the recommendations of the National Research Council (2004) for the establishment of a national saltwater angler registry and other actions to improve recreational saltwater fisheries data, which will be crucial to effective ACL implementation in those fisheries. Importantly, the MSRA reaffirmed the existing rebuilding provisions for overfished stocks, including the 10-year rebuilding timeframe, while retaining flexibility to extend the time in specific situations in which the life history of a fish or other circumstances make the 10-year schedule infeasible.

In 2009, NMFS published revised regulatory guidance on National Standard 1 of the MSA (NS1 Guidelines) to implement the new requirements in the MSRA for a system of ACLs and accountability measures. As of December 2010, each of the eight regional fishery management councils created by the original Magnuson Act had begun the amendment of FMPs to incorporate limits and measures to stop overfishing. Many fisheries are already operating under a system of ACLs and accountability measures and more will be implemented by the summer of 2011. However, about a quarter of the plans requiring amendment are at risk of not being completed by the end of 2011, and thus the changes may not go into effect until 2012 in some regions. Nevertheless, the process of amending the FMPs in each region has put in motion fishery management reforms that are capable of making good on the long-deferred promise of ending decades of chronic overfishing in America’s fisheries.

**Fish Stock Sustainability Index (FSSI)**

The FSSI is a standardized index that measures the status of 230 major fish stocks, providing a means of evaluating progress at ending overfishing. The FSSI stocks account for about 90 percent of total annual U.S. catch.

**The 2006 Amendments: The Magnuson-Stevens Reauthorization Act**

The 2006 amendments to the MSA build on the overfishing reforms of the SFA and strengthen those provisions by adopting key recommendations of the U.S. Commission on Ocean Policy with intent of providing transparent accounting mechanisms to measure compliance with the MSA’s requirements to prevent overfishing and rebuild overfished stocks:

- New requirements for annual catch limits (ACLs) designed to prevent overfishing, with measures to ensure accountability for staying within the limits;
- A strengthened role for science in the catch-setting process in which scientific fishing level recommendations serve as the upper limit on ACLs;
- Reaffirmation of the SFA’s firm but flexible deadlines for rebuilding overfished stocks;
- Establishment of a national saltwater angler registry and improved recreational fisheries data collection.
Even though ending overfishing has been a goal of fishery management since 1976, numerous factors have made it difficult for managers to accomplish the goal. Prior to 2007, these factors included a lack of firm catch limits, absence of effective accountability measures, failure to heed scientific advice on limits, and risky decision-making. Chronic overfishing, a condition in which overfishing is allowed to continue unabated year after year, has been the predictable result in too many fisheries.

The Network first put forward the concept of chronic overfishing in its 2007 report on the state of overfishing in U.S. fisheries, “Taking Stock: The Cure for Chronic Overfishing.” In the 1996 amendments to the Magnuson-Stevens Act, Congress required NMFS to keep track of overfishing and report to Congress on their progress at ending it. The Network’s examination of these annual status reports revealed that 49 of 230 major stocks were subject to chronic overfishing since 1998, when NMFS began reporting. The Network’s 2007 report also indicated that stocks experiencing overfishing, as a percentage of all managed stocks, changed very little over a nearly 10-year period.

With this update, the picture has improved somewhat in the subsequent four years: now half of managed stocks are not experiencing overfishing. However, the overfishing status of slightly more than half of all managed stocks still remains unknown, as shown in Figure 1.

**Figure 1: Overfishing Status of All Managed Stocks**

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</thead>
<tbody>
<tr>
<td>Subject to Overfishing</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Not subject to Overfishing</td>
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<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
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<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Overfishing Status Undefined</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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Figure 1. The bars represent the percentages, by status, of all managed stocks over the period for which comparable data are available (1999-2010). Although the total number of managed stocks reported to Congress annually has changed over time, the portion of stocks not subject to overfishing has increased to 50 percent and the percentage of stocks whose status is unknown has decreased.
Scientists have not assessed all populations of fish that contribute to landings in America’s commercial and recreational fisheries. However, they have enough information to evaluate the overfishing status for 193 of the 230 major stocks in the Fish Stock Sustainability Index (FSSI), which account for 90 percent of all recreational and commercial landings. Figure 2 shows the status of all assessed stocks, indicating that progress at ending overfishing has been incremental since the index was created. On the positive side, 53 stocks now have rebuilding plans and ACLs aimed at eliminating overfishing are being implemented for all federal fisheries. In its first analysis of chronic overfishing, the Network reported 49 specific stocks on which chronic overfishing had persisted for six or more years in the nine-year reporting period from 1998-2006. Of those stocks, 15 are no longer subject to overfishing, and 13 showed enough improvement to be classified as “not overfished.” However, 24 of the stocks suffering a lengthy bout of chronic overfishing by the end of 2006 were still subject to chronic overfishing in 2010, based on a criterion of eight or more years in the 13-year reporting period from 1998-2010. An additional 4 stocks qualified as new “chronic” victims of overfishing by this measure – Nassau grouper, Georges Bank winter flounder, Southern New England winter flounder, and Pacific bigeye tuna. In all, 26 stocks have been subject to overfishing for more than a decade.

Figure 2: Assessed Stocks Subject to Overfishing, 1998-2010

![Figure 2](image-url)
### TABLE 1: STOCKS SUBJECT TO CHRONIC OVERFISHING BY COUNCIL

<table>
<thead>
<tr>
<th>Years Over Fishing</th>
<th>ASMFC</th>
<th>CFMC</th>
<th>GMFMC</th>
<th>HMS</th>
<th>MAFMC</th>
<th>NEFMC</th>
<th>NEFMC/MAFMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gulf of Maine Haddock</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M. Atl./S. New England Windowpane Flounder</td>
</tr>
<tr>
<td>2</td>
<td>Goliath Grouper</td>
<td>Goliath Grouper</td>
<td>Nassau Grouper</td>
<td></td>
<td></td>
<td></td>
<td>Thorny Skate</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Snapper complex</td>
<td>Gray Triggerfish</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Georges Bank Yellowtail Flounder</td>
</tr>
<tr>
<td>6</td>
<td>American Lobster Tautog</td>
<td>Goliath Grouper</td>
<td>Vermilion snapper</td>
<td></td>
<td></td>
<td></td>
<td>Witch Flounder</td>
</tr>
<tr>
<td>7</td>
<td>Gag Grouper</td>
<td>Greater Amberjack</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tilefish</td>
</tr>
<tr>
<td>8</td>
<td>Nassau grouper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S. New England Yellowtail Flounder</td>
</tr>
<tr>
<td>9</td>
<td>Red Drum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S. New England Winter Flounder</td>
</tr>
<tr>
<td>10</td>
<td>Red Drum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Dusky shark</td>
<td>Scup</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cape Cod Yellowtail Flounder</td>
</tr>
<tr>
<td>12</td>
<td>Queen Conch</td>
<td>Red Snapper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>Queen Conch</td>
<td></td>
<td></td>
<td></td>
<td>Gulf of Maine Cod</td>
</tr>
</tbody>
</table>
As of 2010, black grouper were no longer experiencing overfishing in the South Atlantic. Georges Bank cod was subject to overfishing every year with the exception of 2000 and 2001. Cape Cod/Gulf of Maine yellowtail flounder were subject to overfishing during all years included in the analysis except 2003. Scup were removed from the list of stocks experiencing overfishing in 2009. Summer flounder have been on and off the list of stocks upon which overfishing is occurring: they were not subject to overfishing in 2003 but they were again from 2004 to 2008, when the Status of Stocks report declared overfishing was no longer occurring.

### Table 1: The table lists stocks by region and by number of years subject to overfishing for the reporting period 1998-2010. Stocks highlighted in blue are no longer subject to overfishing. Stocks in italics are no longer designated as overfished. Stocks highlighted and in italics are neither overfished nor subject to overfishing. In the first analysis of chronic overfishing, the Network reported 49 specific stocks on which chronic overfishing had persisted for 6 or more years in the period 1999-2008. Of those stocks, 15 are no longer subject to overfishing, and 13 showed enough improvement to be classified as “not overfished.” However, 24 of the stocks suffering a lengthy bout of chronic overfishing by the end of 2006 were still subject to chronic overfishing in 2010, and an additional 4 crossed the threshold of 8 years to become new “chronic” victims of overfishing. In all, 26 stocks were subject to overfishing for more than a decade.

<table>
<thead>
<tr>
<th>PFMC</th>
<th>SAFMC</th>
<th>SAFMC/GMFMC</th>
<th>WPFCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortspine Thornyhead, Darkblotched Rockfish Silvergrey Rockfish Black Rockfish, Petrale Sole</td>
<td>Goliath Grouper</td>
<td>King Mackerel</td>
<td>Yellowfin Tuna Central W. Pacific</td>
</tr>
<tr>
<td>Ling Cod Pacific Whiting</td>
<td>Yellowtail Snapper Pink Shrimp</td>
<td>Red Porgy</td>
<td>Bottomfish Complex</td>
</tr>
</tbody>
</table>

1. American lobster was subject to overfishing every year until 2004, when it did not appear in the SOS. As of 2007, Georges Bank and Gulf of Maine Lobster stocks were reported in SOS as not overfished and not subject to overfishing.

2. Caribbean parrotfishes were defined as subject to overfishing in 2005.

3. Nassau grouper have been defined as overfished for the entire period, although overfishing ceased between 2000 and 2004, but occurred again beginning in 2005.

4. Overfishing for vermilion snapper was not defined until 2000, when the stock was listed as subject to overfishing, a status that remained consistent for the stock until it was no longer listed as subject to overfishing in 2006.

5. Greater amberjack were found to be subject to overfishing beginning in 2004.

6. Gulf red grouper stocks were listed to have an unknown overfishing status until 2000. The stock was subject to overfishing every year afterward.

7. By 2004, black sea bass was listed as neither overfished nor subject to overfishing.

8. Tilefish ceased to be subject to overfishing in 2005.

9. Windowpane flounder were first reported as subject to overfishing in 2010.

10. American plaice were subject to overfishing every year until 2007. The stock continued to be listed as overfished until 2010.

11. Atlantic sea scallops experienced overfishing from 1998 through 2005 with the exception of 2003. The stock was no longer overfished or subject to overfishing as of 2006.

12. Mid-Atlantic yellowtail flounder were subject to overfishing from 2000-2002 (the stock’s status was previously unknown). In 2003, it was combined with the Southern New England yellowtail flounder stock, which was then listed as subject to overfishing in all subsequent years.

13. Georges Bank winter flounder have experienced overfishing throughout the period, with the exception of 2000-2004.

14. Overfishing was first noted on Pacific bigeye tuna in 2003. The stock is managed jointly by the PFMC and WPFCM.

15. Atlantic bigeye tuna were overfished and subject to overfishing until 2007.

16. Summer flounder have been on and off the list of stocks upon which overfishing is occurring: they were not subject to overfishing in 2003 but they were again from 2004 to 2008, when the Status of Stocks report declared overfishing was no longer occurring.

17. Monkfish in both the northern and southern stocks were no longer subject to overfishing beginning in 2007.

18. South Atlantic red drum experienced overfishing until 2009, with the exception of 2006, when overfishing status was unknown.

19. Scup were removed from the list of stocks experiencing overfishing in 2009.

20. Cape Cod/Gulf of Maine yellowtail flounder were subject to overfishing during all years included in the analysis except 2003.

21. Georges Bank cod was subject to overfishing every year with the exception of 2000 and 2001.

22. As of 2010, black grouper were no longer experiencing overfishing in the South Atlantic.

23. Dusky sharks were subject to overfishing in every year of the analysis except 2004 and 2005, when the stock was considered to be included in the large coastal shark complex. In 2008, the stock was again reclassified as subject to overfishing. With the exception of a half dozen shark species, the remainder of the consolidated large coastal shark stock complex remained classified as overfished and subject to overfishing, or their status was unknown. What is reported here are three specific species that were assessed for overfishing status: sandbar shark, shortfin mako shark, and blacknose shark.
Rebuilding Success Stories

Since the Network published *Taking Stock* in 2007, NMFS has reported that 11 stocks have achieved their rebuilding goals and another 10 stocks have rebuilt to 80 percent of the goal. Notable examples of populations reported as rebuilt include Atlantic scup, Atlantic black sea bass, southern Pacific Coast boccacio, dark-blotched rockfish, Alaska blue king crab, and North Atlantic swordfish. Pacific lingcod came under a science-based, 10-year rebuilding plan in 1999 but the population rebounded ahead of schedule and was no longer overfished as of 2005. As these examples illustrate, successful recovery of overfished stocks has occurred where fishery managers have adopted rebuilding programs that establish effective catch limits and accountability for staying within the limits.

Table 1 [centerfold] lists the populations, by region, that have experienced overfishing for the longest time. It shows that 46 major stocks have experienced chronic overfishing since 1998. It also illustrates that in regions where managers have implemented ACLs, instituted accountability measures, heeded scientific advice, and enforced fishery management plan measures, overfishing is a rare event that is quickly addressed if it is found to occur. The section of the table listing stocks that experienced overfishing for five years or fewer shows examples of 30 populations where overfishing was stopped, enabling 19 to recover to a point that they are no longer classified as overfished.

It comes as no surprise that these victims of chronic overfishing show up in regions such as New England, the South Atlantic, Caribbean, and among federally managed highly migratory species where managers have only recently established catch limits, have not yet amended management plans to incorporate ACLs and accountability measures, or have not used approaches that account for lack of assessments or life history information.

When the Network first reported on chronic overfishing in 2007, the fishery management councils which had already adopted overfishing definitions and catch limits also had the fewest stocks under their management that were subject to overfishing. Figure 3 shows the percentage of managed stocks experiencing chronic overfishing by council in 2006 and in 2010. The management councils that already had annual catch limits in place have continued to improve, especially the Mid-Atlantic Council. Those that have adopted them since passage of the MSRA,
such as the New England Council, are beginning to reduce the size of their slice of the chronic overfishing pie.

The most telling point is that where managers ended overfishing, and where stocks were healthy enough to be reclassified from overfished to not overfished, the management plans have included ACLs that were enforced.

Rebuilding Success Stories: Mid-Atlantic

When the Network reported on Mid-Atlantic summer flounder in Taking Stock 2007, it was cited as an example of management on the risky side of the ledger because the stock had been subject to chronic overfishing for eight years. Thanks to a rebuilding plan based on advice from scientists and hard catch limits, in 2008 summer flounder came off the list of species subject to overfishing. By 2010, the council was able to increase the quota for the 2011 season to 29.48 million pounds, a nearly 87 percent increase over the low when the population was subject to overfishing.

Another comeback story in the Mid-Atlantic region is bluefish, a popular recreational species. After a nine-year plan to control fishing mortality was implemented in 2001, the species came off the overfishing list in 2004, and was declared successfully rebuilt in 2008. These success stories offer proof that management actions based on sound science, employing catch limits that stop overfishing and allow depleted populations to rebuild, really work. Healthy fish populations provide better fishing opportunities, support jobs that sustain local communities, and help ensure stronger, more resilient oceans. The value of rebuilding fish populations in the Mid-Atlantic region has been estimated at $570 million per year in additional direct economic benefits.
Reliable scientific information is the lifeblood of fisheries management and the basis for efforts to set annual catch limits that prevent overfishing. The availability of this information helps fishermen, processors and other sectors of seafood business and their communities to plan their investments and business actions. A long-term program committed to providing this kind of information is comparable to “R&D” or research investment made in any business. Reliable information is not only essential for fisheries management, but for investment decisions by stakeholders and businesses whose livelihoods rely on the nation’s fishery resources.

Continued Congressional support for programs that improve the sustainability of our nation’s fishery resources is vital. Congress has invested considerable resources in the science and management of our nation’s fisheries, but federal funding has not kept pace with the demands for information that will reduce scientific and management uncertainty in fisheries decision-making. In recent years, additional resources have been provided to begin implementing the reforms of the MSRA, including increases in funding to expand data collection and stock assessments which inform the ACL-setting process. As a result of increased funding, significant progress has been made in expanding the number of assessed stocks in recent years. Maintaining that investment in data collection, catch monitoring, and stock assessment science will be critical to the ultimate success of ACLs in ending overfishing and realizing the full potential of our nation’s fisheries.
Recognizing that budget resources are limited, assessing the more than 530 stocks in our nation’s fishery management plans may not be realistic. However, incremental increases in funding to expand basic data collection and stock assessment activities since 2001 have enabled NMFS to add nearly 40 new assessments to the growing list of assessed stocks, and more are anticipated by 2012 with current funding. In 2009, about 60% of the major U.S. fish stocks had adequate stock assessments, the most ever. Of those 230 stocks, 193 could be assessed for overfishing in 2010. Without stock assessments, fishery scientists and managers must exercise greater caution to account for higher uncertainty and risk of overfishing. Investments in stock assessment science reduce uncertainty and enable managers to set ACLs with greater confidence that overfishing will be avoided. This leads to lower risk and improved predictability in the management of America’s fisheries, which is good for business and can result in increased quotas for fishermen.

Ending overfishing is a public investment in the conservation of our fisheries that we cannot afford not to make. Chronic overfishing has resulted in enormous losses of potential revenue, exports, jobs, recreation and other economic activity. By one estimate, Americans have foregone nearly $3 billion in revenue from our fisheries annually because stocks are not producing what they could if overfishing ended and populations rebounded. That estimate does not include the wider indirect economic benefits to coastal economies generated by fisheries revenues, income and jobs.
NOAA and NMFS are responsible for the management and conservation of living marine resources within the U.S. Exclusive Economic Zone (EEZ), encompassing an area larger than the combined land area of all fifty states. Our nation’s fisheries are among the many benefits provided by this vast territory, and they are managed as a public trust. Ending overfishing is essential to sustain those benefits for present and future generations of Americans. Implementing ACLs that achieve the objective will require ongoing cooperation and support from Congress, state and federal agencies, regional fishery managers, fishermen and other public stakeholders.

- **Congress should ensure that the MSA reforms aimed at ending overfishing are fully implemented** and give them time to work through the management processes established by the Act. Political intervention to relax catch limits has failed to produce long-term healthy fisheries in the past, and has often contributed to chronic overfishing that hurts, not helps, fishermen. Ensuring that overfishing is ended and overfished stocks are restored to healthy, productive levels is the best way to help fishermen and coastal communities derive the greatest benefits from fisheries resources.

- **Congress should provide adequate funding to support vital data collection, catch monitoring, and stock assessment science** which provide the basis for accountability and informed decision-making in the ACL-setting process. Investments in information for the ACL-setting process reduce uncertainty, minimize the risk of overfishing and increase predictability, all of which helps fishermen, processors and seafood support sectors with business planning and operating decisions.

- **NMFS should provide clear guidance and technical support to regional fishery management councils** as they implement ACLs. Agency guidance on best practices for ACL-setting is urgently needed to ensure that regions adopting formal catch limits for the first time can benefit from the experience of regions that already employ them.

- **NMFS should do a better job in communicating the options available to Councils for setting ACLs in data-limited situations.** The federal regulatory guidelines on overfishing provide flexible approaches to ACL-setting that can be tailored to meet the needs of many different fisheries and situations, including recreational and data-limited fisheries, but the options are not widely understood by fishery managers.

- **NMFS should provide guidance to improve the application of ecosystem-based management principles in fisheries decision-making,** particularly for addressing ecosystem considerations in the ACL-setting process. For instance, explicit guidance for setting ACLs to achieve Optimum Yield (OY) for forage fish stocks is lacking in the NS1 guidelines even though NMFS recognizes the importance of conserving abundant prey species in the ecosystem.18 Accounting for ecological factors in the setting of catch limits will be crucial to the MSA’s goal of achieving long-term sustainability in U.S. fisheries.

With the establishment of a system of catch limits and accountability measures in all U.S. fisheries, fishery managers are putting in place a responsive, adaptive and flexible framework that can achieve the MSAs’s goal of ending overfishing. The Network’s recommendations will ensure that managers have the resources and information they need to make good on the promise of achieving sustainable fisheries for the benefit of fishing communities and the nation as a whole.
END NOTES

5 For instance, see: Pauly et al. 1998; Jackson et al. 2001; Pauly et al. 2002; Myers and Worm 2003; Hutchings and Reynolds 2004; Ward and Myers 2005; Worm et al. 2006.
8 MSA Sec. 301(a)(1); 16 U.S.C. 1851.
12 MSRA Sec. 302(h)(6) (16 U.S.C. 1852(h)(6))
14 MSA Sec. 304(e), 16 U.S.C. § 1854(e)(1): “The Secretary shall report annually to the Congress and the Councils on the status of fisheries within each Council’s geographical area of authority and identify those fisheries that are overfished or are approaching a condition of being overfished. For those fisheries managed under a fishery management plan or international agreement, the status shall be determined using the criteria for overfishing specified in such plan or agreement.”
17 A. Somma (2003), The environmental consequences and economic costs of depleting the world’s oceans, Economic Perspectives, electronic journal of the U.S. Department of State, Vol. 8(1): 14-16.
18 50 CFR § 600.310(e)(3)(iv)(C).

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The Marine Fish Conservation Network is the largest national coalition solely dedicated to promoting the long-term sustainability of marine fish. With almost 200 members – including environmental organizations, commercial and recreational fishing associations, aquariums, and marine science groups – the Network uses its distinct voice and the best available science to educate policymakers, the fishing industry, and the public about the need for sound conservation and better management practices.

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