

## Restoring Our Ocean Riches



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### Careless stewardship of marine resources has an economic impact as well as an environmental one.

Back when Peter Hoffman was an aspiring chef in 1970s, he used to marvel at the size of the fish he saw at New York City's Fulton Fish Market. Massive tuna and swordfish had their weight marked with crayon on their skin—300 pounds, even 350 pounds. But by the time Hoffman opened his own restaurant, Savoy, almost 20 years later, those fish had vanished from the market—and the sea. Now Hoffman feels lucky to find fish that weigh 75 pounds.

Hoffman's story is haunting. Not only does it remind us of the declining health of the world's oceans, it also underscores the economic riches that are being lost as well.

Ocean-related tourism, recreation and fishing are responsible for over 2 million jobs. In 2000, the U.S. ocean economy created 2.5 times the economic output as the agricultural sector, and by 2004, it had contributed more than \$230 billion to GDP.

Yet even though these numbers are impressive, they are on the decline. The long-term vitality of these industries rests entirely on the vitality of the oceans, and right now, our oceans are in a state of silent collapse. They are threatened by three powerful forces that could tear apart the wide net of marine-based commerce, from tourism to dining.

#### [Overfishing: The empty ocean]

Industrial fishing fleets have devoured 90 percent of large fish such as tuna, marlin, and swordfish—along with the jobs and much of the income these fisheries once supported. High-tech fishing fleets still ply the world's oceans, chasing fewer and smaller fish.

#### [Acidification: the loss of coral and shellfish]

The main cause of global warming—carbon dioxide—is also changing the chemistry of the world's oceans. Excess carbon dioxide is making marine waters more acidic, which causes a drop in carbonate, the key component in shells. This will harm not only seafood favorites such as lobster (the U.S. lobster industry brings in about \$375 million annually), but also smaller organisms that form the base of the ocean food chain. Corals, home to abundant marine life, will be especially hard hit. Scientists fear that much of the world's coral will be gone by 2050 unless emissions are reduced. Such a loss would be a major blow to fishing and diving industries.

#### [Pollution: swimming in sewage]

Breakneck development along U.S. coasts has put pressure on aging sewer and drain systems. When heavy rains arrive, drains overflow and push raw sewage and pollutants such as gasoline, pesticides, and toxic chemicals into the ocean. The cost is high. Each year for the last several years, there have been over 20,000 days of beach closings at our nation's beaches due to pollution. These closings are costly. In 2007, Long Island's tourism industry lost more than \$60 million in economic activity and taxes when polluted runoff was so high that local communities had to close beaches.

The good news is that solutions for each of these problems exist. We can revive the world's oceans and sustain the industries and the jobs they support. But we need to put some smart policies in place to do so. We can combat overfishing by limiting destructive fishing practices, such as bottom-trawling—the marine equivalent of strip mining—and setting and enforcing science-based catch limits. Marine protected areas—similar to national parks on land—can also help by allowing embattled species to recover. A study found that rebuilding 17 overfished U.S. stocks would triple the current value of these fisheries.

We can reduce the amount of global warming pollution in ocean waters by converting to clean, efficient energy sources. The Natural Resources Defense Council is pushing Congress to ensure ocean protection is included in any global warming legislation. You can learn more about solving ocean acidification by watching Acid Test, a film NRDC produced that premiered on Discovery Planet Green in August.

To keep our beaches—and our coastal tourism businesses—healthy, we can clean up sewage pollution by investing in the aging infrastructure that allows sewage to flow into the ocean, and we can prevent stormwater runoff by using green, low-impact development techniques in our cities such as green roofs, permeable pavement that lets rain soak into the ground, and tree boxes on city sidewalks.

Oceans are a shared resource, and many of these solutions will require international cooperation. In the end, we will all reap the benefits. Consider one example. Florida's ocean economy contributed \$25 billion in revenue in 2006, generated more than 500,000 jobs, and supported more than \$13 billion in wages. Those figures are high, but coastal communities around the Americas can support similar growth. We just have to keep our marine riches healthy and sustainable.