Bad fish accounting revealed

We’ve seen what happens to a business when the numbers are cooked: Energy giant Enron’s value plummeted from billions to near zero, dragging the fortunes and futures of people all the way down. Now it turns out we may be running into a similar problem with our oceans: There aren’t as many fish as the auditors once thought. This time, however, the implications circle the globe and range from poverty to starvation.

In a study recently published in Nature, my colleague, Daniel Pauly, and I found that the world’s fish catch has been grossly exaggerated each year since 1988, through incorrect information supplied by China. Like suspect math performed by the Texas energy company, our worldwide marine assets were inflated — by about 1.4 billion pounds a year, yielding a cumulative shortfall since 1987 equal to more than three times the yearly total U.S. fish catch. The result is an estimate of the global fish catch — relied upon by national and international governing bodies, investors, conservationists and fishing fleets to determine marine policy and economic commitment — that’s been growing seriously worse year after year.

In the late 1980s it seemed that virtually every major commercial fishery in the world had been fully exploited. The only reassurance came from the United Nations’ Food Agricultural Organization (FAO), which compiles global fish catch numbers. The agency insisted that worldwide totals remained stable. Today, however, whatever solace those figures provided is gone, as is much of the hope that seafood can continue to meet the world’s growing food needs.

According to the World Resources Institute, fish provide 16.5 percent of the animal protein consumed worldwide, but in the developing world the percentage is much higher. In Asia, fish represent 26 percent of the animal protein intake; in Africa, 17 percent. As population grows in those regions, stress on the food supply will increase, and greater pressure will fall on seafood as a quality food source.

The FAO numbers told us the fish were there to be caught. So when trawlers failed to bring back enough, they simply fished harder. Fleets employed bigger ships, more sophisticated sonar to locate fish, larger nets to catch them and bigger freezers for longer storage. Unfortunately, a feedback loop like this just produces diminishing returns. Meanwhile, people have less to eat, while fishermen and fishing communities go broke.

Our findings call into question fisheries management practices everywhere. The FAO’s inaccurate numbers were used to justify building giant super-trawlers, putting more species on the market than ever before and going from barren sea to barren sea in a mopping-up operation. Given our new research, however, little doubt should exist that if future food demands are to be met, such overfishing must end.

Fortunately, some efforts have already begun. A U.N. fishing treaty that enhances our information capacity and provides real, national enforcement powers for the first time has just gone into effect, with ratification by 30 countries including the United States, although ratification by more countries will enhance its effectiveness.

In the United States, Rep. Sam Farr, D-Calif., has introduced a comprehensive fisheries management bill in Congress that aims
to help end overfishing, reduce the catching and killing of unwanted species known as bycatch, protect essential fish habitats and devote resources to find out what isn’t known about dwindling fish stocks.

And with a third of all fish landed used to feed other fish and farm animals, we’re finally beginning to realize that aquaculture, as currently practiced, is largely unsustainable.

As we saw with the Enron debacle, the greatest danger of inflated statistics is the complacency they engender. In business or in fishing there seems little need for concern or intervention if the outlook is positive. But if the FAO numbers had been accurate, we would at least have known 10 years ago that we were in deeper trouble than previously thought. Now, with the adjusted fishing figures showing the catches of world fisheries in general decline, the need to act is even clearer. Failure to do so threatens the world’s food supply.

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