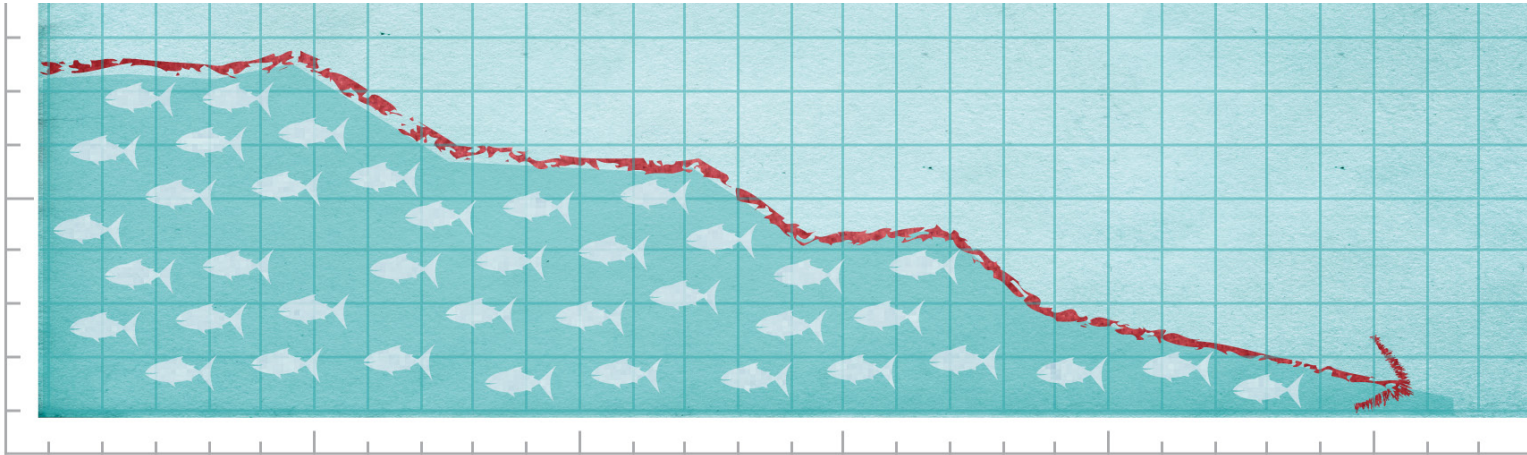


# overfishing

too many boats catching too many fish



**LARGE COMMERCIAL FISHING VESSELS** more closely resemble space ships than boats. Wall-to-wall electronics allow captains to “see” beneath the surface to find ever-scarcer fish. The same technology enables boats to deploy huge nets, miles of line, and thousands of hooks, making it possible to catch an entire school of fish—and everything else in the way—in one pass. After emptying the waters in one region, boats simply move to another. This is overfishing: the serial depletion of fish populations from too many people catching too many fish, leaving too few adult fish to repopulate the seas.

## KEY STATS

» “Peak fish”—the maximum wild capture potential from the world’s oceans—was hit in 1996;

» Approximately 85% of the world’s fish stocks are fully exploited or over-exploited

» There are enough fishing boats to fish out the world’s oceans at least 2.5 times

» Super-trawlers have nets big enough to hold 12 jumbo jets

» Global fishing subsidies amount to \$30 billion annually, 20-25% of the total value of all wild seafood;

» An estimated one-quarter of all wild catch is thrown back (wasted) as bycatch

## CHALLENGES

**TOO MUCH BOAT CAPACITY** In the same way that industries such as farming and oil extraction have lobbied protections and subsidies into existence, fisheries have also bullied governments into protecting their economic interests at the expense of the environment. Motivated by trade interests as well as social and political pressure, direct capacity-enhancing subsidies account for 60% of all fisheries subsidies. While a reduction in boat capacity would help the fish, the cost of that in terms of livelihoods and economic impact is not small, nor is an end to subsidies politically feasible in many countries.

**BYCATCH** The easiest way to catch a targeted fish is to scoop up everything that swims with it. For fish that are bottom-dwellers, like haddock or shrimp, boats drag a net along the ocean floor, effectively bulldozing the seafloor. Unintended catch can include coral, sea turtles, sharks, or anything else lurking in the path of the net. Depending on regional regulations, that bycatch might be dumped and wasted, or landed for local food. The ratio of bycatch to shrimp in Bangladesh was calculated to be as high as 67-to-1. The Gulf of California Mexican shrimp industry was assigned a ratio of 10-to-1. Globally an estimated 27 million metric tons of bycatch is caught annually. Most efforts to encourage increased sustainable harvesting include introducing more selective gear and less destructive methods.

**WASTE IN THE SUPPLY CHAIN** Close to 20% of all fish in North America is wasted in the supply chain before it reaches

the consumer. In developing nations, where freezing technology is more scarce, that figure rises to 30%. Factors at play include: static consumer demand for familiar, popular fish does not match the variability and seasonality of a wild harvest; fish are not sold in advance, as are many commodities, so the effort to connect them to a market begins after a fish is landed and already on its way to spoiling.

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**MYSTERY FISH** More than one-third of all fish in North America are mislabeled. For some species, fraud rates are even higher: Red snapper is truly red snapper only 13 percent of the time. Some of this mislabeling is certainly accidental. The seafood supply chain is rife with outdated technology, and few companies can digitally pass data between players. Without adequate tracking methods, the door is wide open for unscrupulous players to mislabel, or for illegal fish to find its way into the legitimate supply chain.

## OPPORTUNITIES

**VALUING BETTER FISH** A price premium for sustainably caught fish would align market incentives with more sustainable practices, driving system-level change. There are multiple ways to achieve this: technology to improve quality and handling; local or other specialty marketing; tying story to each fish caught. Each of these represents a promising approach to securing higher prices for more sustainably caught product.

**TRACKING FISH** Technology and partnerships that support more efficient and accurate species, origin, and catch-method information for individual fish eliminate illegal, unreported, and unregulated fish from the supply chain. Such efforts also increase the efficiency of operations, leaving distributors with more money in their pockets.

## OTHER RESOURCES

### Sea to Table

[www.seaztable.com](http://www.seaztable.com)

### Norpac Fisheries Export

[www.norpaceport.com](http://www.norpaceport.com)

### Red's Best

[www.redsbest.com](http://www.redsbest.com)

### SOURCES

**SOFIA 2012**

**NOAA FishWatch**

**National Geographic**

**GRID-Arendal/UNEP Environment and Poverty Times**

**Sumalia et al. 2010. "A bottom-up re-estimation of global fisheries subsidies"**