

It's fairly simple. Without the ocean, human life on Earth would be impossible. As [Sylvia Earle](#) says, "No blue, no green." Yet after centuries of abuse at the hands of mankind, the ocean is in crisis, a fact recognized by 48 percent of [Awakening Consumers](#) in a recent g-Think survey. Here is a topline look at ocean health: why we need it, why it's threatened and what we can do about it.

#### FIVE REASONS WE NEED HEALTHY OCEANS:

1. **Oxygen.** Ocean plants and bacteria produce over half the oxygen we breathe.
2. **Carbon Absorption.** The oceans absorb roughly 30 percent of global carbon emissions and 80 percent of the heat generated from increased levels of greenhouse gases. Without the ocean, global warming would be a far greater threat than it already is.
3. **Weather.** The ocean is a vital component of the climate system. It exchanges with the atmosphere large quantities of heat, water and gases. It is responsible for the global redistribution of heat from tropics to polar regions that keeps climates predictable, and the planet habitable.
4. **Water.** The ocean returns moisture to the atmosphere that becomes the rain that grows crops and feeds rivers and streams.
5. **Food.** The ocean provides over 157 million tons of food per year, about 2 percent of the world's total food production. While that number may seem low, consider that the ocean provides about 16 percent of the protein humans consume, and that approximately one billion people depend on the ocean as their primary source of food. As the world's population heads toward 9 billion, the ocean stands to play an even more critical role in providing nutrition to ever-growing demand. (7)

#### THREE REASONS THE OCEANS ARE IN CRISIS:

1. **Overfishing.** Humans are pulling fish out of the ocean faster than the fish can reproduce. Clearly, this is not a sustainable model. Over the past 50 years, one third of the world's fisheries have collapsed. Current trends suggest global fisheries could collapse completely by 2048. Today more than 90 percent of the stock of certain species, including blue fin tuna, shark, swordfish and Atlantic cod has disappeared. (1)

As coastal fisheries become depleted, fishing fleets have to move farther out from shore and shift to deeper water species. Because these deeper water species (such as [Orange Roughy](#) and [Grouper](#)) tend to have larger body size, longer life spans, later sexual maturity and slow growth, they are more vulnerable to overfishing. (2)

Advanced fishing techniques such as bottom trawling has added to the problem. Bottom trawling wreaks havoc on biodiversity by removing up to 60 percent of all species within an area in just a single trawl. This can mean the disappearance of coral communities thousands of years old in a matter of hours. (3)

2. **Climate Change.** Increased levels of CO<sub>2</sub> in the atmosphere naturally lead to increased levels of CO<sub>2</sub> in the ocean. These increased levels can negatively affect growth, reproduction, disease resistance and other biological and physiological processes in many marine species.

More than anything, increased carbon absorption has led to the acidification, or the altering of the pH balance, of the ocean. The acidity of the ocean surface has increased 30 percent since before the Industrial Revolution. (4) If current trends continue, ocean acidity could rise by another 100 percent by the end of this century. (5)

Many species will be unable to adapt to the rapid changes in ocean acidity and carbonate

concentrations, especially those that build calcium carbonate shells and skeletons, such as lobster, crab and other shellfish. (8)

3. **Pollution.** Many marine species are harmed or even killed by plastic debris, which could jeopardize their survival. Marine animals are mostly affected through entanglement in and ingestion of plastic litter. Other threats include the use of plastic debris by “invader” species and the absorption of PCBs from ingested plastics. (9)

The ocean now contains over 400 “dead zones,” mostly downstream of agricultural basins, and exposed to runoff of fertilizers, pesticides and soil. Normal marine biodiversity has ceased to exist in these regions which span more than 245,000 square kilometers, according to some estimates. (10)

The ocean is home to over 90% of the world’s species—flora and fauna that could one day hold the cures for asthma, malaria and cancer. Yet plastic debris, coastal runoff and other forms of pollution are decreasing the possibility of those potential cures ever being realized.

#### THREE THINGS YOU CAN DO ABOUT IT:

1. **Eat smarter.** The U.S. is the world’s third-largest consumer of seafood (behind China and Japan). However, more than three-quarters of the seafood Americans eat is imported from some other country. Eating less seafood, and eating closer-caught seafood clearly makes sense on a number of levels. Awakening Consumers seem to understand this. Almost 92 percent said, at one time or another, they chose not to eat a particular seafood because of concerns about its scarcity.

There are dozens of seafood selector cards issued by various NGOs, and while their effectiveness has been questioned, 23 percent of Awakening Consumers have used one when making a seafood selection.

Not all seafood is the same, and eating some species has a greater impact on ocean biodiversity than others. For example, eating a top predator species such as tuna, shark or swordfish has a greater impact than eating a species lower down on the food chain such as tilapia or mussels.

2. **Cut down your carbon.** Lessening their carbon footprint and fossil fuel consumption is a concept Awakening Consumers are very familiar with. Ditto the need to recycle plastic waste. As awareness of the connection between these behaviors and ocean health becomes more apparent, there will be even more motivation for Awakening Consumers to embrace them.

3. **Demand Marine Protected Areas.** As a society, we place great value on our protected lands—our state and national parks and World Heritage sites. Twelve percent of the planet’s land is protected; less than 1 percent of the ocean is.

Marine Protected Areas (MPAs) protect critical spawning and migration areas for a large number of species. They often include large no-catch zones, which research has shown can generate 20 times more revenue through ecotourism than fishing (11).

In summary, the health and well-being of the ocean is at a critical juncture. While mankind needs a healthy ocean in order to survive, we continue to threaten its well-being with a variety of destructive practices. It would not be at all surprising to see public awareness of ocean health issues gain increasing levels of traction in the years ahead. Because when the ocean is in crisis, we are all in crisis.

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