

## Science News

... from universities, journals, and other research organizations

Save Email Print Share

### What Is the Monetary Value of a Healthy Ocean?

ScienceDaily (Mar. 22, 2012) — Professor Robert Diaz of the Virginia Institute of Marine Science is a co-editor of "Valuing the Ocean" a major new study by an international team of scientists and economists that attempts to measure the ocean's monetary value and to tally the costs and savings associated with human decisions affecting ocean health.

#### See Also:

##### Earth & Climate

- Oceanography
- Geography

##### Computers & Math

- Computer Programming
- Internet

##### Science & Society

- Ocean Policy
- Environmental Policies

##### Reference

- Dead zone (ecology)
- Consensus of scientists regarding global warming
- Ocean acidification
- Carbon cycle

The study estimates that if human impacts on the ocean continue unabated, declines in ocean health and services will cost the global economy \$428 billion per year by 2050, and \$1.979 trillion per year by 2100. Alternatively, steps to reduce these impacts could save more than a trillion dollars per year by 2100, reducing the cost of human impacts to \$612 billion.

Diaz says the study report "describes the state of the science for 6 threats to the global ocean, what can happen if all these threats act together, and the economic consequences of taking or not taking action." He notes that the study is unique in stressing the interactions between and among multiple threats, which include acidification, low-oxygen "dead zones," overfishing, pollution, sea-level rise, and warming.

In addition to co-editing the 300-page study, Diaz is a lead author on the chapters that monetize the impacts of dead zones and the combined effects of multiple stressors. Research by Diaz and colleagues shows that over-fertilization of ocean waters has led to a sharp increase in the number, size, and duration of low-oxygen dead zones around the world over the last 50 years, which could lead to major impacts on fisheries. The study estimates an annual decrease in global fisheries value of \$88 billion by 2050, and \$343 billion by 2100, unless steps are taken to reduce nutrient inputs and global warming. Warmer water holds less oxygen, thereby intensifying dead zones.

A release from the Stockholm Environment Institute -- the agency that coordinated the international study -- states "The ocean is the victim of a massive market failure. The true worth of its ecosystems, services, and functions is persistently ignored by policy makers and largely excluded from wider economic and development strategies... This collaborative book presents an unequivocal argument in favor of placing the ocean at the centre of plans to build a sustainable future, while for the first time calculating the actual monetary value of the critical ocean services that we stand to lose."

The study's positive message is that local actions can make a global difference. "Thanks to close links between globally and locally acting stressors," says SEI, "coordinated small-scale interventions can aggregate upwards to have major significance."

Diaz and other report editors and authors will present the findings of their study during the "Planet Under Pressure" conference in London on March 26<sup>th</sup>.

Report. <http://www.sei-international.org/publications?pid=2064>

Share this story on Facebook, Twitter, and Google:

Like 60 Tweet 51 1



Fish and sea turtle near a coral reef. (Credit: © Olga Khoroshunova / Fotolia)

#### Ads by Google

**Shrink Your Electric Bill** — 65% Tax Savings, 1 Yr Same-as-Cash. It's Free to look!  
[www.kumukit.com](http://www.kumukit.com)

**Stem Cell Transplants** — For Lymphoma Patients, Fred Hutch Docs, Most Experience  
[SeattleCCA.org/StemCellTransplants](http://SeattleCCA.org/StemCellTransplants)

**Ford Focus Electric** — Gas-Free, 100% Electric! The 2012 Ford Focus Electric.  
[www.ford.com/electric/focuselectric/2012/](http://www.ford.com/electric/focuselectric/2012/)

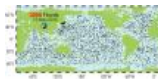
**3-Minute Chakra Test** — Take the Free Chakra Test to Find Out Which of Your Chakras Are Weak  
[www.ChakraHealing.com](http://www.ChakraHealing.com)

**Environmental Science** — Online environmental science degree program. Accredited. Respected.  
[www.APUS.edu/Environment](http://www.APUS.edu/Environment)

#### Related Stories



**Barents Sea: An Effective Ocean Cooler** (Feb. 24, 2010) — Stronger ocean currents have transported more heat to the Barents Sea over the last years. Despite this extra heat, the mean temperature has only increased modestly. The reason is a stronger heat ... > [read more](#)



**Ocean Stored Significant Warming Over Last 16 Years, Study Finds** (May 22, 2010) — The upper layer of the world's ocean has warmed since 1993, indicating a strong climate change signal, according to a new study. The energy stored is enough to power nearly 500 100-watt light bulbs ... > [read more](#)

**Ocean Acidification Turns Projected Climate Change Winners Into Losers** (Feb. 18, 2012) — Adding ocean acidification and deoxygenation into the mix of climate change predictions may turn "winner" regions of fisheries and biodiversity into "losers," according to new ... > [read more](#)



**Freshwater Runoff From Greenland Ice Sheet Will More Than Double By End Of Century** (June 12, 2008) — The Greenland Ice Sheet is melting faster than previously calculated according to a recently released scientific

#### Just In:

Scientists Wrest Partial Control of a Memory

> [more breaking science news](#)

#### Social Networks

Recommend and share this story on Facebook, Twitter, and Google +1:

Send 60 people  
Tweet 51 Follow @sciencedaily

+1 Recommend this on Google

Other bookmarking and sharing tools:

35

#### Breaking News

... from NewsDaily.com

Ariane rocket heads for International Space Station



Paul Allen gives \$300 million to expand brain research

Electric car revolution faces increasing headwinds

Space tourism set for takeoff by 2014, FAA says

Researchers mount new mission to solve Amelia Earhart mystery

[more science news](#)

#### In Other News ...

New home sales slip, prices at 8-month high

New home sales slip, prices at eight month high

Obama picks Dartmouth's Kim to lead World Bank: official

Insight: Bo's exit opening act in

Story Source:

The above story is [reprinted](#) from materials provided by [Virginia Institute of Marine Science](#). The original article was written by David Malmquist.

Note: Materials may be edited for content and length. For further information, please contact the source cited above.

Need to cite this story in your essay, paper, or report? Use one of the following formats:

- APA Virginia Institute of Marine Science (2012, March 22). What is the monetary value of a healthy ocean?. *ScienceDaily*. Retrieved March 23, 2012, from <http://www.sciencedaily.com/releases/2012/03/120322100417.htm>
- MLA

Note: If no author is given, the source is cited instead.

Disclaimer: Views expressed in this article do not necessarily reflect those of ScienceDaily or its staff.

Search ScienceDaily

Number of stories in archives: 116,252

Find with keyword(s):  Search

Enter a keyword or phrase to search ScienceDaily's archives for related news topics, the latest news stories, reference articles, science videos, images, and books.

paper. The study is based on the results of state-of-the-art modeling using data from ... > [read more](#)



**First Buoy To Monitor Ocean Acidification Launched** (June 14, 2007) — The first buoy to monitor ocean acidification has been launched in the Gulf of Alaska. Attached to the 10-foot-diameter buoy are sensors to measure climate ... > [read more](#)

Ads by Google

**Alternative Energy** — BP is investing in business and technology to deliver clean energy. [www.bp.com/energymix](http://www.bp.com/energymix)

**(5) Signs Of Depression** — These 5 Chilling Depression Signs Will Shock You. Learn Them Now. [thelifevibe.com](http://thelifevibe.com)

**Get a \$1000 Solar Coupon** — Free Installation and Cheaper Power Promo Code Mar1000 Expires 3/31 [www.solarcity.com/Mar1000](http://www.solarcity.com/Mar1000)

**Is He A Cheater?** — 1) Search His Email Address Fast. 2) See Hidden Pics & Profiles Now! [Spokeo.com/Find-Cheaters](http://Spokeo.com/Find-Cheaters)

**Alkaline Water...Scam?** — Is this stuff for real? Don't get tricked-Learn the truth. [lonizerResearch.com](http://lonizerResearch.com)

succession drama Afghan Taliban: no faith in trial of U.S. massacre suspect Americans' data to be held longer under counterterrorism rules

Insight: Samsung: "fast executioner" seeks killer design Three-way World Bank race seen as deadline looms [more top news](#)

WHEN IT COMES TO SUPPORT WE DON'T MAKE EXCUSES.

*Debra*

RACKER since 2003

experience fanatical support

rackspace HOSTING

THE WORLD'S LEADER IN HOSTING & CLOUD COMPUTING

Copyright Reuters 2008. See [Restrictions](#).

Free Subscriptions ... from ScienceDaily

Get the latest science news with our free email newsletters, updated daily and weekly. Or view hourly updated newsfeeds in your RSS reader:

- [Email Newsletters](#)
- [RSS Newsfeeds](#)

Feedback ... we want to hear from you!

Tell us what you think of ScienceDaily -- we welcome both positive and negative comments. Have any problems using the site? Questions?

Your Name:

Your Email:

Comments:

Click button to submit feedback:

- Save
- Email
- Print
- Share