

# Ocean climate change damage to cost \$2 trillion

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A 2009 file photo released by the Great Barrier Reef Marine Park Authority in Australia showing a section the Great Barrier Reef. A new study estimates that climate change could result in annual costs of nearly \$2 trillion in damages to the world's ocean systems.

Greenhouse gases are likely to result in annual costs of nearly \$2 trillion in damage to the oceans by 2100, according to a new Swedish study

The estimate by the Stockholm Environment Institute is based on the assumption that climate-altering [carbon emissions](#) continue their upward spiral without a pause.

Warmer seas will lead to greater acidification and oxygen loss, hitting fisheries and [coral reefs](#), it warns.

[Rising sea levels](#) and storms will boost the risk of flood damage, especially around the coastlines of Africa and Asia, it adds.

Projecting forward using a business-as-usual scenario, the Earth's [global temperature](#) will rise by four degrees Celsius (7.2 degrees Fahrenheit) by the end of the century, says the report, "Valuing the Ocean."

On this basis, the cost in 2050 will be \$428 billion annually, or 0.25 percent of global domestic product (GDP).



Environmental activists and fishermen in Senegal stage a rally to draw attention to the problems of the country's fisheries sector. A new study warns that warmer seas resulting from current climate change projections will lead to greater acidification and oxygen loss, hitting fisheries and coral reefs.

By 2100, the cost would rise to \$1,979 billion, or 0.37 percent of output.

If emissions take a lower track, and warming is limited to 2.2 C (4 F), the cost in 2050 would be \$105 billion, or 0.06 percent of worldwide GDP, rising to \$612 billion, or 0.11 percent, by 2100.

"This is not a scaremongering forecast," says the report.

It cautions that these figures do not take into account the bill for small island states swamped by rising seas. Nor do they include the impact of warming on the ocean's basic processes, such as nutrient recycling, which are essential to life.

"The ocean has always been thought of as the epitome of unconquerable, inexhaustible vastness and variety, but this 'plenty more fish in the sea' image may be its worst enemy," notes the report.

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