

CLIMATE CHANGE MAY CUT PROFITS FROM OCEANS BY TRILLIONS

Climate change could reduce the economic value of the services the oceans provide to mankind by almost US\$2 trillion a year by 2100, according to a study presented at the Planet Under Pressure conference this week (26-29 March).

The analysis, conducted by the Stockholm Environment Institute (SEI), relates to loss of income from fisheries, tourism, ocean carbon sink, and those related to sea-level rise and storms.

This figure presents loss at a high greenhouse gas emissions scenario under a lower emissions scenario, the damage would be US\$612 billion a year by 2100. Even looking to 2050, the

estimated loss is US\$106 billion and US\$428 billion depending on the level of emissions.

The researchers said that rather asking impossible questions such as 'what is the ocean itself worth?' they sought to answer questions such as 'what is the value of preventing further damage to the ocean?'.

This article is part of our Planet Under Pressure 2012 coverage which takes place 26-29 March 2012. To read insights from our conference team please visit our blog.

They chose five factors that could be priced in a meaningful way and that policymakers could act upon.

By comparing the effects under high- and low-emissions scenarios, the researchers show the amount that can be saved by lowering carbon emissions well over a trillion dollars per year by 2100.

The figures could be seen as being low compared with future GDP (gross domestic product), but these are only the effects of climate change many threats are converging on the oceans at once, said Frank Ackerman, of the SEI.

The study also reviewed the evidence on the main threats to the oceans: acidification, ocean warming, oxygen concentration decline, sea-level rise, pollution and overuse of marine resources.

There is a synergistic effect such that the action of the multiple stressors together is higher than the effect of individual stressors, said Julie Hall, researcher at the New Zealand's National Institute of Water and Atmospheric Research and collaborator of the SEI study.

There are so many gaps in understanding the effects of the threats on the oceans that we need to take a precautionary approach, she said.

The study's main recommendations are to improve ocean governance, include ocean services in economic and policy assessments and prioritise research on multiple stressors of the oceans.

The document calls for a global, integrated approach, highlighting as a key recommendation that a UN High Commissioner for Oceans be appointed to coordinate research, prioritise action and speak up for the ocean at the highest levels.

Rakhyun Kim, a researcher at the Australian National University, said that there is an important gap in the international legislation related to oceans that should be addressed.

There were also calls at the conference for the creation of an international network for monitoring, training and making predictions on the threats on the oceans.

Carol Turley, a senior scientist at Plymouth Marine Laboratory, United Kingdom, who joined these calls, told *SciDev.Net* that ocean acidification is an international issue and requires a global, regional and local approach.

Rio+20 will be an opportunity for the oceans, since it is in the official agenda and there is important support from the civil society.

Source: <http://www.scidev.net/global/pollution/news/climate-change-may-cut-profits-from-oceans-by-trillions.html>