

Putting a value on environmental change

May 29 2014



Credit: undergroundb on flickr.

The value of the global environment to human well-being, health and livelihoods fell by around US\$20 trillion (A\$21.5 trillion) a year between 1997 and 2011 due to loss of wetlands, coral reefs and tropical forests, a new study from a team of international researchers has found.

The study, published in *Global Environmental Change*, found the total value of global [ecosystem services](#) in 2011 was US\$124.8 trillion (A\$134 trillion) a year, down from \$US145 trillion a year in 1997. That

compares to global GDP of just \$US75.2 trillion in 2011.

Global ecosystem services measure the value of ecological systems to human well-being, on top of the usual economic measures contained in [gross domestic product](#) (GDP) figures.

"Nature is not just a pretty place. Nature is a large and important part of the real economy which adds to human well-being," said lead author Professor Robert Costanza, from Crawford School of Public Policy.

The report is the first time scientists and economists have put a dollar value on the loss of global ecosystem services, highlighting the need for policymakers to take a closer look at issues affecting [environmental change](#).

"It allows us to build a more comprehensive and balanced picture of the assets that support human well-being and human's interdependence with the well-being of all life on the planet," Professor Costanza said.

He said Australia's ecosystem services were estimated to be worth around US\$5 trillion (\$5.4 trillion) a year, compared to GDP of around US\$1.5 trillion.

The drop in the global value was partly due to the loss of [tropical forests](#) and wetlands around the world, and loss of coral reefs.

The report found the global area of tropical forest had declined by 642 million hectares between 1997 and 2011, while deserts had grown by 234 million hectares.

It found [coral reefs](#) have gradually been turned into [sea grass](#) and algae beds. The area of ocean coral has shrunk by 34 million hectares, while sea grass and algae beds had grown by the same amount between 1997

and 2011.

It found the global area of wetlands has shrunk by 14 million hectares.

"We are losing wetlands as they are converted into farmlands, urban and other uses" Professor Costanza said.

Provided by Australian National University

Citation: Putting a value on environmental change (2014, May 29) retrieved 25 April 2024 from <https://phys.org/news/2014-05-environmental.html>

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