

Price to save coral reefs is one year of GDP growth

8 July 2012

The cost of transforming the world's energy systems to address rising carbon dioxide levels is little more than one-tenth of one per cent of growth in global gross domestic product per annum, according to a University of Queensland researcher.

[UQ Global Change Institute](#) Director Professor Ove Hoegh-Guldberg will discuss the cost at the International Coral Reef Symposium (www.icrs2012.com) at Cairns this week (July 9-13).

Professor Hoegh-Guldberg is the coordinating lead-author of the Oceans chapter in the next [Intergovernmental Panel on Climate Change](#) report.

He cites an [IPCC analysis](#) which shows that slowing global GDP growth by 0.12 per cent a year over the next 50 years will stabilise global temperature.

" That expenditure is the equivalent to taking off one year of GDP growth over the next 50 years," Professor Hoegh-Guldberg said.

" It would enable atmospheric concentrations of carbon dioxide to stabilise at levels that will give coral reefs a chance.

" Without this action, they don't stand a chance.

" It's very clear that we have one last opportunity to make the changes that are needed to preserve this brilliant and economically important ecosystem on our planet.

" And the costs are minimal when they are aligned against the huge and impossible costs of trying to adapt ecosystems like coral reefs to the changes being inflicted on them."

Rising sea surface temperatures, caused by increasing concentrations of greenhouse gases, including CO₂, in the atmosphere, increase the likelihood of mass bleaching events which kill coral reefs.

Reef restoration methods – while effective at some local scales – are not economically-viable on a large scale, according to Professor Hoegh-Guldberg.

" To replant the Great Barrier Reef by planting fragments that cost \$5 a piece to grow in the aquaculture facilities across 40,000 km² of the Great Barrier Reef would cost \$200 billion," Professor Hoegh-Guldberg said.

" If we then decided that we would want at least 20 different species within those communities, the cost would be \$4,000 billion. The numbers are quickly astronomical and impossible."

Professor Hoegh-Guldberg said as the situation now stood, modelling for the upcoming fifth assessment report of the IPCC showed that under most scenarios coral reefs were in extreme peril from warming oceans.

He said as temperatures increased, so would the frequency of ' killer' coral events.

" Considering that coral communities take at least 10 to 20 years to recover - having a mass bleaching event every two to three years is essentially to admit that those coral communities no longer survive and recover," he said.

Further information:

Professor Ove Hoegh-Guldberg
 Director
 UQ Global Change Institute
 Tel. +61 (0) 401 106 604

Mark Paterson
 Communications Director
 About the Global Change Institute (www.gci.uq.edu.au)
 Tel. +61 (0) 409 411 110

UQ Global Change Institute
 The Global Change Institute at The University of Queensland, Australia, is a new source of game-changing research, ideas and advice for addressing the challenges of global change.

The Global Change Institute advances discovery, creates solutions and advocates changes to policies that respond to challenges presented by climate change, technological innovation and population change.

Share link:

<http://tinyurl.com/ng7k4az>



Subscribe to the UQ News weekly newsletter

Subscribe

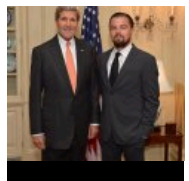


**AGRICULTURE + FOOD,
BUSINESS + ECONOMY,
ENVIRONMENT +
SUSTAINABILITY, GLOBAL
CHANGE**



[Expert urges a worldwide rethink on food supplies](#) 18 August 2014

GLOBAL CHANGE

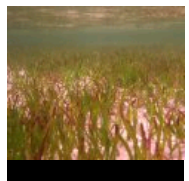


[UQ researcher joins superstar line-up at US oceans conference](#) 19 June 2014

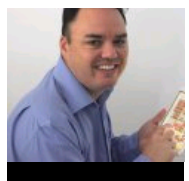
[UQ and climate change research](#) 20 May 2014



[UQ serves up award-winning research](#) 13 May 2014



[Law could fail to protect vulnerable marine life, UQ scientists warn](#) 24 January 2014



[UQ climate change paper has the whole world talking](#) 16 January 2014



[Scientists warn: Climate change inaction betrays the young](#) 4 December 2013

[Australia needs carbon price plus direct action: UQ report](#) 21 November 2013



UQ, World Bank and partners aim to unlock wealth streams in East Asia-Pacific ⁷
November 2013

RECENT HEADLINES

[UQ's social science strengths](#)

• [recognised](#) 19 September 2014

[UQ researchers scoop Scopus](#)

• [awards](#) 19 September 2014



[Bird brains more precise than humans'](#) ¹⁹

September 2014



[Supersized black hole found in ultra small galaxy](#) ¹⁸

September 2014

[More headlines](#)

[We need to talk about the sexual abuse of scientists](#)

8 September 2014

[Ghosts of 2003: US, Australia and allies face tough choices in Iraq](#)

9 September 2014

[Intelligence inheritance – three genes that add to your IQ score](#)

9 September 2014

[Does Singld Out, a gene-based dating service, pass the sniff test?](#)

9 September 2014

[Three misguided beliefs of the Group of Eight universities](#)

12 September 2014

[Read more](#) UQ articles on The Conversation

[Home](#) › [Price to save coral reefs is one year of GDP growth](#)

Brisbane St Lucia, QLD 4072

+61 7 3365 1111

Other Campuses: [UQ Ipswich](#),
[UQ Gatton](#), [UQ Herston](#)

[Maps and Directions](#)

© 2014 The University of Queensland

A MEMBER OF





 GROUP OF EIGHT

[Privacy & Terms of use](#) | [Feedback](#)

Authorised by: Director, Office of Marketing and Communications
ABN: 63 942 912 684
CRICOS Provider No: 00025B

QUICK LINKS

 [For Media](#)
 [Emergency Contact](#)




SOCIAL MEDIA

NEED HELP?

EMERGENCY

[3365 3333](#)

EXPLORE

 [Giving to UQ](#)
 [Faculties & Divisions](#)
 [UQ Jobs](#)
 [UQ Contacts](#)
 [Services & Facilities](#)
 [Login](#)