

# Statement of the Coral Reef Crisis Working Group Meeting, The Royal Society 6 July 2009

Coral reefs are the most biologically diverse habitats of the oceans and provide essential ecosystem goods and services to hundreds of millions of people.

Temperature-induced mass coral bleaching causing widespread mortality on the Great Barrier Reef and many other reefs of the world started when atmospheric CO<sub>2</sub> exceeded 320ppm.

**At today's level of ~ 387ppm CO<sub>2</sub>, reefs are seriously declining and time-lagged effects will result in their continued demise with parallel impacts on other marine and coastal ecosystems.**

Proposals to limit CO<sub>2</sub> levels to 450ppm will not prevent the catastrophic loss of coral reefs from the combined effects of global warming and ocean acidification.

**To ensure the long-term viability of coral reefs the atmospheric CO<sub>2</sub> level must be reduced significantly below 350ppm.**

In addition to major reductions in CO<sub>2</sub> emissions, achieving this safe level will require the active removal of CO<sub>2</sub> from the atmosphere.

**Given the above, ecosystem-based management of other direct human induced stresses on coral reefs, such as over-fishing, destructive fishing, coastal pollution and sedimentation, will be essential for the survival of coral reefs on which so many people depend.**



Sir David Attenborough  
Working Group Co-Chair



Ralph Armond, Director General,  
Zoological Society of London



Dr Richard Aronson, President,  
International Society for Reef Studies



Prof Barry Brook  
University of Adelaide



Prof Ken Caldeira  
Carnegie Institution for Science



Dr Ann Clarke  
The Frozen Ark Project



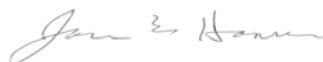
Prof James Crabbe  
University of Bedfordshire



Prof. Andreas Fischlin  
Swiss Federal Institute of Technology, in  
own capacity



Wendy Foden  
IUCN Species Programme



Dr James Hansen  
NASA Goddard Institute for Space Studies



Dr Simon Harding  
Globe International and ZSL



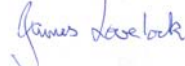
Prof Ove Hoegh-Guldberg  
University of Queensland




Rachel Jones  
Zoological Society of London



Prof Tim Lenton  
University of East Anglia



Dr James Lovelock  
Green College, Oxford



Dr Gordon McGregor Reid  
President, World Association of Zoos &  
Aquariums



Aylin McNamara  
Zoological Society of London



Prof Justin Marshall, President, Australian  
Coral Reef Society



Dr David Obura  
IUCN Coral Specialist Group & CORDIO



Paul Pearce-Kelly  
Zoological Society of London & IUCN  
Invertebrate Conservation Ctee.



Dr Dirk Petersen  
SECORE & Rotterdam Zoological Society



Dr Peter Read  
Massey University



Dr Chris Reid  
Sir Alister Hardy Foundation for Ocean  
Science/Marine Institute



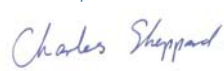
Prof Callum Roberts  
University of York



Dr Alex Rogers  
International Programme on the State of  
the Ocean




Prof Yvonne Sadovy  
IUCN SSC Marine Conservation Sub-Committee



Prof Charles Sheppard  
University of Warwick



Dr Mark Spalding  
The Nature Conservancy



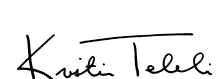
Dr Mary Stafford-Smith  
Coral Reef Research



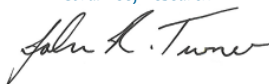
Dr Simon Stuart  
IUCN Species Survival Commission



Jon Taylor  
World Wildlife Fund



Dr Kristian Teleki  
Int. Coral Reef Action Network



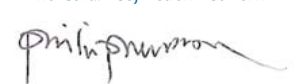
Dr John Turner  
Bangor University



Dr Makoto Tsuchiya  
The Japanese Coral Reef Society



Prof J.E.N. Veron  
Coral Reef Research



Dr Phillip Williamson  
University of East Anglia