



MEDIA RELEASE

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CLIMATE TALKS WARNED TO FOCUS ON HEALTH OF WORLD'S OCEANS

- Coral reef scientists argue for world's oceans to be high on agenda at UNFCCC talks.
- Coral reefs will not survive the rapid increases in global temperatures and atmospheric CO₂ that are forecast this Century by the IPCC, if business as usual prevails
- 450ppm is likely to be the tipping point for a collapse in coral reef ecosystems
- The livelihoods and welfare of 350 million people living along the coasts of tropical developing countries will be among the first casualties of the loss of coral reef systems.

With coral reefs providing eco-system services worth at least \$170 billion worldwide the world's oceans must be high on the agenda at the Copenhagen meeting of the United Nations Framework Convention for Climate Change (UNFCCC) in December, leading international marine scientists warned today.

"The UNFCCC talks must address the impact of global warming on the world's oceans because the ocean and associated marine life serve as a vital 'carbon sink' in helping to regulate the global carbon cycle. As the earth's largest natural carbon sink they are also the natural resource most-affected by CO₂ emissions," they said today.

"Oceans and associated marine life play a vital role in the global climate system and in carbon cycling. They have absorbed 30% of CO₂ emitted by human activity. They have slowed global warming. Yet, rising sea temperatures and ocean acidification (via the absorption of CO₂), both of which are caused by a rising concentration of CO₂ in the atmosphere, pose a serious threat to marine life, including coral reefs."

On today's International Day of Climate Action, the scientists warn that most coral reefs will not survive the rapid increases in global temperatures and atmospheric CO₂ forecast this century by the Inter-governmental Panel on Climate Change (IPCC), unless drastic action is taken to curb CO₂ emissions.

"As a result, the livelihoods and welfare of several hundred million people living along the coasts of tropical developing countries will be among the first casualties of the loss of coral reefs due to climate change."

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The scientists, meeting this week to review five years of international research financed by the Global Environment Facility (GEF), are members of the Coral Reef Targeted Research & Capacity Building for Management (CRTR) Program's Synthesis Panel.

The CRTR Program is a leading international coral reef research initiative that provides a coordinated approach to credible, factual and scientifically-proven knowledge for improved coral reef management.

The scientists caution that the concentration of CO₂ in the Earth's atmosphere is 387 parts per million (ppm), which is 80ppm higher than where it has been for the past 740,000 years, if not 20 million years. Increasing atmospheric CO₂ has already brought about a +0.74°C rise in temperature.

If current CO₂ emission trends continue, then even the most conservative estimates predict CO₂ concentrations exceeding 500ppm and global temperature increases of 2°C or more by the end of the Century. The scientists say that 450ppm is likely to be the tipping point for a collapse in coral reef ecosystems, including the Great Barrier Reef, although a precautionary approach calls for stabilizing CO₂ at much lower levels.

"Above 450ppm coral reefs are likely to dwindle into insignificance; they'll be reduced to rubble, threatening the fate of those tens of millions of people whose livelihoods depend upon them," the scientists said.

"The warmer and more acidic oceans caused by the rise of carbon dioxide from the burning of fossil fuels threaten to destroy coral reef ecosystems, exposing people to flooding, coastal erosion and the loss of food and income from reef-based fisheries and tourism. And this is happening just when many nations are hoping that these industries would allow them to alleviate their impoverished state.

"World leaders face a race against time to avoid catastrophic change to one of the world's most spectacular and productive ecosystems. Entire island states formed by corals reefs, supporting robust populations and economies in the Central Pacific and Indian Oceans, are likely to disappear under the sea as reefs erode. The loss of vital coral reef ecosystem services in other areas threatens economies and human welfare, resulting in huge social and political disruption, with collateral impacts on neighbouring states."

Monique Barbut, Chief Executive Officer at the Global Environment Facility, Washington, said: "The science is clear; it tells us that we must act now to avoid the collapse of these iconic ecosystems."

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The CRTR Program is a partnership between the Global Environment Facility, the World Bank, The University of Queensland (Australia), the United States National Oceanic and Atmospheric Administration (NOAA) and approximately 50 research institutes and other third-parties around the world.

Today, the CRTR Synthesis Panel members join more than 300 of the world's leading scientists and natural resource managers for technical workshops at the 5th (GEF) International Waters Conference at Cairns, Queensland.

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