

THE COMMONWEALTH CLIMATE CHANGE AND CORAL REEFS

It is a true saying that the Commonwealth cannot negotiate for the world but can help the world to negotiate. **Terry Dormer** considers coral reefs in Commonwealth waters as indicators of climate change.



ABOVE: Terry Dormer photographing clownfish

The 1989 Holdgate report on global warming is a case in point. The impetus for this report can be traced to a speech by President Gayoom of the Maldives to Commonwealth heads of government at their meeting in Vancouver in October 1987. In it, he indicated that there was growing scientific evidence that sea levels would probably rise by up to six feet during the next 100 years, unless adequate measures were taken to address the situation.

The Holdgate report represented a much praised input to the newly established United Nations Intergovernmental Panel on Climate Change. In 1989, the Commonwealth's Langkawi Declaration on the Environment continued the development of international awareness of global warming and was particularly important in underpinning the Rio Earth Summit in 1992. Since then, the Commonwealth has remained active in this field, by means of a broad range of initiatives.

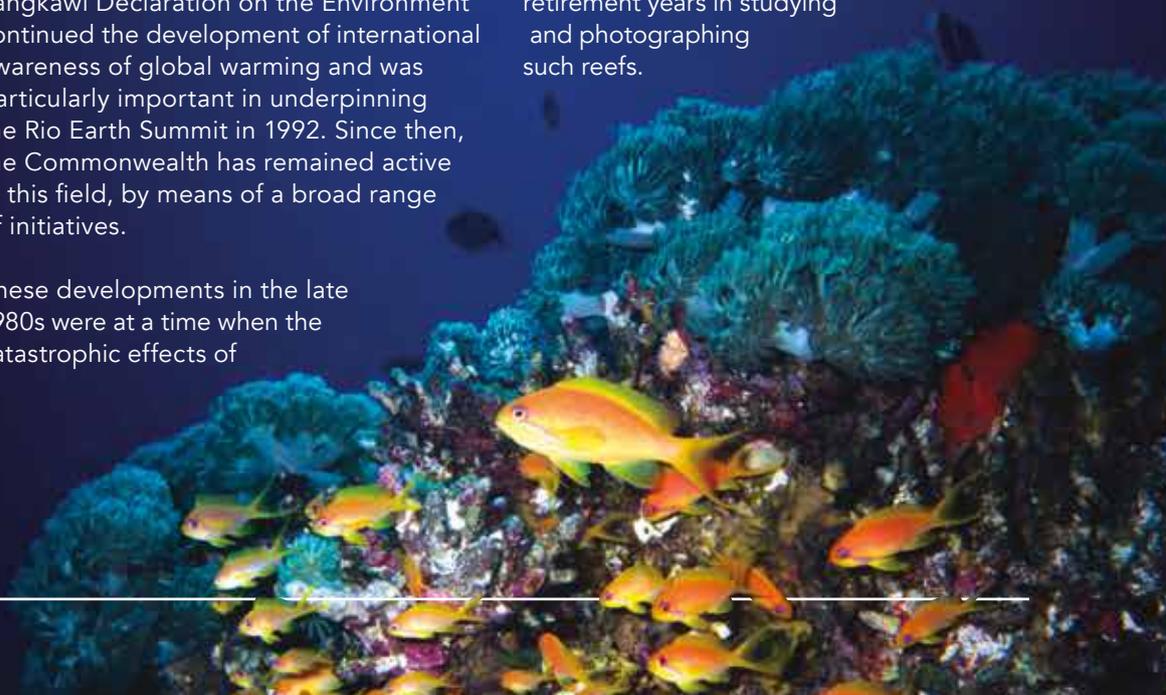
These developments in the late 1980s were at a time when the catastrophic effects of

climate change were only beginning to be understood. Two decades later, the dangers were more generally acknowledged by the scientific community – but major efforts were still needed to ensure that they were appreciated by the general public.

The Maldives again took the lead. In a dramatic and successful attempt to gain media attention, that small Commonwealth state held a cabinet meeting underwater on 17 October 2009. While submerged, ministers signed a document urging all nations to cut their carbon emissions.

Today, the Commonwealth could build significantly on its proven commitments to overcoming the grave problems which humanity faces because of global warming.

A good starting point might well be found in efforts to preserve coral reefs. Here I must declare a personal interest, as I have spent a considerable part of my retirement years in studying and photographing such reefs.





Amongst the most biodiverse places on Earth, coral reefs share with a number of other species-rich ecosystems – notably tropical rainforests – the three main conditions which encourage a teeming range of living things; namely optimum levels of warmth, wetness and sunlight. The loss of such habitats is one of the many aspects of the accelerating rate of environmental destruction which is such a troubling feature of the impact of human activity on the natural world.

Coral reefs cover hundreds of thousands of square kilometres and are believed to be the habitats of over a million species. Made by billions of tiny animals, they build vast communal calcareous skeletons, some of which are so large that they can be seen from space, as in the case of Australia's Great Barrier Reef. Over 500 million people depend on coral reefs for their incomes from tourism and fishing – and for their protection from storms. It is estimated that reef-based activities contribute annually over £200 billion to the global economy.

The 2014 reports of the United Nations Intergovernmental Panel on Climate Change describe coral reefs as the most vulnerable marine ecosystem on Earth, stressing that they have very limited capacity to adapt to rising water temperatures and acidification. As such, they are key indicators of climate change, which the Commonwealth is particularly well placed to study. A considerable majority of Commonwealth countries have coral reefs in their territorial waters. They include all those small island members that face inundation as a result of rising sea levels.

Of course, the study and preservation of such reefs, while exceedingly important, must be seen within the context of the whole complex subject of the human impact on climate change.

The facts are increasingly clear. If current trends continue, most reports suggest that a period of rapid temperature increase will result in catastrophic effects during this century.

If planetary temperatures rise by 4 centigrade degrees or more, all the available evidence suggests that the provision of food and water for the majority of the world's population will become increasingly difficult. That would be a particularly acute problem in populous tropical countries, where the vast majority of the people of the Commonwealth live.

If food and water wars eventuate and become global and possibly nuclear, the results could threaten the very existence of civilisation.

Notwithstanding these dire warnings, it is evident that climate change and other stresses at earlier times in the Earth's history have accelerated the processes of evolution through natural selection – both for species and, when people appeared, for the products of human inventiveness. Who knows what the results will be during the next hundred years? With the Commonwealth playing a key role, they could be very exciting indeed.

ABOVE: A Zebra Lionfish and a Hawksbill turtle

LEFT: Anthias on a coral reef

Photographed by Terry Dormer

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MORE ABOUT TERRY DORMER

A gallery of Terry Dormer's photographs is available at the picture library of the Natural History Museum: www.piclib.nhm.ac.uk/Terry_Dormer.asp