



Australian Coral Reef Society Inc

Promoting the scientific study of Australian coral reefs

austcoralreefsoc@gmail.com
www.australiancoralreefsociety.org

June 2021

Australian Coral Reef Society response to the proposed 'In Danger' listing of the Great Barrier Reef World Heritage Area

The recommendation to add the Great Barrier Reef to the list of World Heritage in danger is grim news for the Reef, the marine life it supports and the Queensland tourism industry. It is also a call to action to the Australian government to make meaningful steps toward curbing carbon emissions.

Our global environment is changing rapidly and fundamentally. The growing threat from climate change to the 'outstanding universal value' of all UNESCO World Heritage Sites, particularly those where coral reefs are located, should be at the forefront of our attention. A recent report by the Australian Academy of Sciences (2021) outlined how vulnerable Australia is to the impacts of global warming. The combination of the unprecedented bushfire season last year with the repeated mass mortality of corals on the Great Barrier Reef (herein referred to as 'the Reef') demonstrates the effects of only +1.1°C of global warming.

The future long-term outlook for the Reef ecosystem is considered 'very poor', with climate change seen as the major driver of impacts, acting through more frequent and intense heatwaves (GBRMPA 2019). Corals are already suffering from heat stress and mortality: three severe coral bleaching events within five years have caused an estimated loss of 30% of hard coral cover in the shallow waters of the Reef. Moreover, storm impacts are damaging reefs, with corals unable to recover quickly enough as they are compromised by ocean warming, acidification and deoxygenation.

The Reef was designated a World Heritage Area in 1981 based on four criteria: *i.* its superlative natural beauty above and below the water; *ii.* its globally outstanding example of an ecosystem that has evolved over millennia; *iii.* its globally significant diversity of reef and island morphologies that reflects ongoing geomorphic, oceanographic and environmental processes; and *iv.* the richness and complexity of its natural ecosystems, which are highly significant for biodiversity conservation. This badge of honour has given Australians reason to be proud of their iconic natural wonder. The international prestige has boosted tourism for the Reef, which attracts more than 1.6 million visitors per year.

However, Australia's coral reef scientists have clearly demonstrated the link between climate change, driven by rising global levels of atmospheric carbon dioxide caused by burning fossil fuels, and the demise of the Reef through coral bleaching and ocean acidification. In turn, the lack of action by the Australian government to protect those characteristics for which the Reef was initially designated as World Heritage by abating fossil fuel emissions has jeopardised both the prestige of a World Heritage designation, along with the income it provides.

The in Danger list identifies World Heritage sites facing major problems. Since 2015, the Australian Government has been under pressure from the World Heritage Committee to demonstrate significant plans for managing the threat of climate change to the Reef. Their response was the 2050 Long Term Sustainability Plan, which set out investments of \$1.28 Billion over 5 years to fund local environmental management initiatives, such as improving water quality, controlling infestations of crown-of-thorns starfish and investing in reef restoration projects. Whilst mitigating local pressures can help alleviate the impacts of climate stress on the Reef, the investment has placed the focus at the periphery, rather than the centre, of the problem. Despite severe impacts from coral bleaching and ocean acidification on the Reef, the government has failed to act to address the core problem of climate change, but rather chose to lobby as a member of the World Heritage Committee to avoid the reef being placed on the list of Heritage in Danger.



Australian Coral Reef Society Inc

Promoting the scientific study of Australian coral reefs

austcoralreefsoc@gmail.com
www.australiancoralreefsociety.org

On the question of how UNESCO deals with properties under threat from climate change, we believe that as the primary threat to the world's coral reefs, climate change should be a key part of reef stewardship responsibilities under the World Heritage convention. An approach that separates climate change out from reef stewardship overlooks the centrality of this issue to the survival of the Great Barrier Reef.

As managers of the Reef, the Great Barrier Reef Marine Park Authority has done an excellent job of acting to make the Reef as resilient as possible for the future. This includes supporting cutting edge marine science for restoration, establishing a large and comprehensive program for monitoring the reef and factors related to its health in real time and engaging with Traditional Owners. In addition to this, world-leading scientists at Universities, the Australian Institute of Marine Science and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) have worked in research stations at Heron Island, One Tree Island, Lizard Island and Orpheus Island to better understand the implications of climate change for the Great Barrier Reef and inform management and conservation strategies.

The World Heritage Committee report clearly recommended corrective measures for Australia to adequately address the threat of climate change and further invest in initiatives to improve water quality. This means that the growing disconnect between Australian responsibilities for stewardship of the Reef and Federal Government's support of the fossil fuel industry has to stop. Alongside all State Parties, Australia has now been asked to work with the international community to implement ambitious actions to address climate change to meet their obligations to the World Heritage Convention and fulfil their responsibility to protect the Great Barrier Reef. It is time to return to setting the shining example of responsible reef stewardship for which Australia was once renowned. Now, more than ever, the government must begin urgent work on a credible national plan to achieve domestic greenhouse gas emissions reductions at a speed consistent with the survival of the Great Barrier Reef.

The ACRS is happy to provide additional information as required.

Sincerely,

Associate Professor Sarah Hamylton
President, Australian Coral Reef Society

References:

Australian Academy of Science (2021), 'The Risks to Australia of a 3 °C Warmer World',
<https://www.science.org.au/files/userfiles/support/reports-and-plans/2021/risks-australia-three-deg-warmer-world-report.pdf>

Great Barrier Reef Marine Park Authority (2019) 'Great Barrier Reef Outlook Report',
<https://elibrary.gbrmpa.gov.au/jspui/handle/11017/3474>

President: A/Prof Sarah Hamylton
Vice-President: A/Prof David Suggett
Hon Treasurer: Dr Stephanie Duce
Hon Secretary: Dr Steph Gardner

02 4221 3589
02 9514 1900
07 4781 5476

shamylto@uow.edu.au
david.suggett@uts.edu.au
stephanie.duce@jcu.edu.au
austcoralreefsoc@gmail.com