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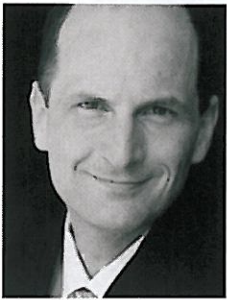
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CHRIS MCGRATH

A reef under siege

Australia's guardianship of the Great Barrier Reef is being scrutinised internationally. Could this icon's World Heritage status be at risk?

AS A YOUNG BOY growing up in the Whitsunday Islands, I never imagined I would live to see the loss of the Great Barrier Reef (GBR). I thought its only major threats were fishing and pollution.

In 2004 I was shocked to learn just how enormous a threat climate change posed. At the time, scientists from the Australian Institute of Marine Science documented the extensive coral bleaching that had occurred on the reef in 1998 and 2002 due to unusually high water temperatures. A colourful map of the Queensland coast showed the bleaching extending the full length of the GBR, encompassing both the inner reefs and the largely pristine outer reefs.

I remember sitting in my office late at night looking at the red and yellow splotches that showed extreme water temperatures on the map and realising the enormity of the threat. Up until that point, I'd thought that the reef – which stretches for 2300km – was so far-reaching, and its corals had been around for so long, that climate change could not destroy it.

While this damage was being done, Australia's obstinate race to dig up and export all of our coal, oil and gas – the very things that are driving climate change – was picking up speed. Today, Australia is the world's largest exporter of coal, and there are plans afoot to be the world's second-largest exporter of liquefied natural gas (LNG).

The massive boom in the coal and LNG industries in recent years has driven major expansions of the three largest bulk ports adjacent to the reef, particularly at Gladstone, where a massive LNG hub is in the process of being constructed.

New coal export ports are also proposed north of Gladstone at the

mouth of the Fitzroy River and north of Cairns, between Princess Charlotte and Bathurst bays – up until now a near-pristine area.

The GBR was inscribed on the World Heritage List under the World Heritage Convention in 1981. However, in 2011 the World Heritage Committee expressed its concern over the impacts of the recent port expansions, and a 2012 report found that the scale of proposed development presents a significant risk to the reef.

As a result, in mid-2012, the committee warned the reef could be added to the List of World Heritage in Danger, which notes sites under serious threat – being on this list would be very embarrassing for Australia internationally. The federal government is undertaking a strategic review of development adjacent to the GBR as a consequence of this threat.

In its decision, the committee recommended Australia not “allow any new port development or associated infrastructure outside of the existing and long-established major port areas”. The recommendation to place the GBR on the list has considerable implications for future development on

the Queensland coast and for the reef's protection. It is difficult to see how our government can approve the ports proposed at the mouth of the Fitzroy River, or in Princess Charlotte and Bathurst bays, without contravening this recommendation. These developments are arguably the most damaging due to their location in largely undeveloped or near-pristine areas.

But even if development slows down, the wider threat that is not being effectively addressed is climate change – to which our coal and gas exports are major contributors.

To exacerbate the problem, last year researchers reported that coral cover on the reef has halved since the mid-1980s, an astounding figure. This is due to cyclones, bleaching and coral predation from crown-of-thorns starfish (COTS). All of these threats have been linked to climate change itself.

Bleaching is caused by extreme heat events and rising sea temperatures. There's also growing evidence that warmer seas lead to more intense tropical storms, with the resultant flooding washing nutrients and sediments into the ocean, fertilising phytoplankton and leading to population explosions in COTS.

If we are to pass Australia's impressive natural treasures, such as the Great Barrier Reef, on to our children, we need to leave our coal and gas in the ground – unless we find a way to safely dispose of emissions rather than dumping them in the atmosphere. That is the real elephant in the room with regards to the future of the reef and our coal and gas industries.



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