



## CAN-026-10 Steps to Save the Great Barrier Reef-GBR

How do we save coral reefs?

Vic Ferguson

The World Federation for Coral Reef Conservation 281.971.7703 P.O. Box 311117 Houston Texas 77231

# 10 steps to save the Great Barrier Reef

James Woodford

Destruction and regeneration are the reef's two great constants – the problem is that the reef no longer has the resilience it once had



The Great

Barrier Reef, UNESCO World Heritage site. Photograph: Alamy

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The [Great Barrier Reef](#) is not a museum piece that can be preserved or maintained in any kind of constant state. To talk about keeping it as it is or protecting it in a particular form is a total absurdity. Having dived almost every major section of the reef from the top of Cape York to reefs more than 200 kilometers off Bundaberg, with scientists on various expeditions, I can vouch for the fact that it is never the same from one hour to the next, let alone across years or decades.

A popular tourist reef can go from sublime to smashed in the blink of a cyclone. Crown of Thorns starfish have always munched through vast swathes of coral and flood plumes loaded with sediment from big wet seasons have been smothering inshore reefs for millennia.

Destruction and regeneration are the reef's two great constants. But before industry, cities, fishing, sugar cane, land clearing for grazing, pesticides, fertilizers, coal ports and tourism, the reef had the capacity to recover after a natural disaster. Now that resilience is threatened.

The Academy of Science is right to call foul on the management of governments at all levels to cover up the reef's problems and ignore solutions. The [Reef 2050 long term sustainability plan](#) fails to tackle the real action needed to allow the Great Barrier Reef to be the global marvel that it still is, and always should be.



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If the federal and [Queensland](#) governments are serious about managing the reef instead of producing a greenwash report that does not have the backing of the nation's leading reef experts, here are some critical actions they need to take.

**Empower the Great Barrier Reef Marine Park Authority (GBRMPA)** to be a fierce advocate for the reef's wellbeing. For too many years, critics have said GBRMPA plays a dead bat when dealing with governments, industry and other stakeholders. The authority has felt a blowtorch of dismay from environmentalists and scientists over the process of approval for the [Abbot Point coal terminal](#), and the impact of dredging. The authority's culture needs a complete reboot to make it fearlessly independent again. Of all the things that can be done to ensure the reef's good health, the most important is to unleash a powerful body with a mandate to better manage the marine park.

**Do not allow massive and controversial compromises to the marine ecosystem**, such as dredging and mismanagement of spoil. This is especially the case for industries, such as coal, that at a global level pose an existential threat to the reef. The Australian Coral Reef Society is also likely to make its submission to the commonwealth's sustainability report this week. It will emphasize its wish to prevent dumping of dredge spoils on or near the reef rather than having protection zones as per the current plan. It will also call for all environmental impact processes to do with the reef to be completely impartial.

**Drive Australia towards a stronger future of renewable energy** and use the Great Barrier Reef as a flagship for reducing our reliance on coal at home and as an export. A senior scientist at the Australian Institute of Marine Science, Janice Lough, was unequivocal when she spoke at the recent Australian Coral Reef Society conference in Brisbane: "The human influence on global climate is now clear. Between 1950 and the first six months of 2014, the atmospheric concentration of the main greenhouse gas, carbon dioxide, increased by 100 parts per million." By exporting so much of the world's coal we are inevitably importing the destruction of our most precious ecosystems.

**Introduce tighter controls on agriculture for all catchments that flow into the Great Barrier Reef.** The powerful sugarcane and beef cattle grazing industries need to do more to stop pesticides and nutrients reaching the reef. As a marine park authority water quality report says:

*"Beef cattle grazing on the large, dry catchments adjacent to the Great Barrier Reef Marine Park (in particular the Burdekin and Fitzroy) have involved extensive land clearing and over-grazing during drought conditions. Widespread soil erosion occurred, and associated nutrients have drained into the Great Barrier Reef. Cropping, particularly sugarcane, involves intensive fertilizer use and has created substantial soil erosion. As a result, large quantities of nutrients and sediment have been discharged into the Great Barrier Reef. Pesticide residues from cotton and sugarcane cultivation may pose a threat in some inshore waters."*

**Fast track the establishment of management plans for the Coral Sea Marine Reserve.** At just over 1m square kilometers, this is the biggest single gazetted marine park in the world, but the Abbott government has suspended its operation pending a review of federal marine parks. It is vital to the health of the Great Barrier Reef because the two are oceanic next-door neighbors and their ecosystems depend on each other as species move from one park to the other. Huge populations of pelagic fish such as shark and tuna live and travel between the Coral Sea and the Great Barrier Reef and are at risk of over-exploitation by commercial fishers.

**Introduce stricter fishing controls to stop the Great Barrier Reef's food chain being disturbed.** This is critically important not just for commercial but also recreational fishers. The removal of big predatory fish by commercial and recreational fishers has a massive flow-on effect for the reef ecosystem.



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**Ensure standards for managing ships passing through the marine park are maintained and improved.** The marine park authority says shipping traffic in the park includes more than 7,000 voyages made by more than 2,000 ships. And this is expected to increase as Queensland's mining boom continues. Since 1987 there have been more than 700 incidents of shipping or marine pollution and numerous close calls. A huge oil spill in the Great Barrier Reef has the potential to be a globally significant catastrophe.

**Restore and increase marine science research budgets as a matter of high priority.** Too many intelligent and capable young scientists have come out of master's and doctoral programs with vast knowledge of the Great Barrier Reef, but are now unemployed. These researchers need to be deployed across the marine park to make sure we have the best available science to manage the reef and mitigate human impacts.

**Managing crown-of-thorns starfish.** One school of thought is that extra nutrients lead to an explosion in the populations of the starfish larvae. The animals have always been present on the reef but it is possible that outbreaks are now more severe and more frequent. These outbreaks are one of the single greatest causes of coral mortality and so need to be managed, perhaps through greater use of divers on specific reefs from which outbreaks are known to spread, given the job of killing them. This is particularly important to the tourism industry.

**Boost research into possible actions to assist environments threatened by climate change.** Although this is a controversial point, if the effects of climate change are as severe as predicted then it is possible that researchers may need to intervene to ensure the survival of corals. Right now a massive research effort is underway into the science of trans locating heat-resistant corals from, say, the much warmer northern waters of the Great Barrier Reef to more southern areas. It is possible these corals from closer to the equator will have a greater chance of survival in warmer world.

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*The only thing necessary for the triumph of evil is that good men do nothing"....Edmund Burke*