



Australian Academy of Science

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Secretary Science Policy Professor David Day FAA

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Senator Janet Rice
Chair, Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600
c/o: ec.sen@aph.gov.au

Dear Senator Rice

Re: Senate Environment and Communications Reference Committee on the “2018-19 Budget measure *Great Barrier Reef 2050 Partnership Program*”.

The Australian Academy of Science welcomes the opportunity to comment on the draft Great Barrier Reef (GBR) *2050 Partnership Program*.

The Academy has drawn on the expertise of its distinguished Fellows with expertise in coral reef science, environmental policy, and conservation planning to prepare this submission.

Overview

The Academy welcomes the intent of the recent increase in funding for some aspects of improved stewardship of the GBR.

The Academy’s position has always been that research to better understand, manage and protect the GBR should be premised on excellence, conducted at scale, focused on science-informed priorities, coordinated across agencies, and supported by rigorous and transparent processes of peer-review.

The Academy notes with concern many of the ongoing stressors to the Great Barrier Reef World Heritage Area – such as global warming, land clearing, coastal development, port expansion, dredging, dumping of maintenance dredge spoil, commercial and recreational fishing, ship anchoring, and many other impacts of escalating shipping – all of which continue to accumulate. The proposed funding does little to address these issues.

In the aftermath of unprecedented back-to-back coral bleaching and mass mortality in the northern and central GBR, the Academy is concerned with the direction of attention away from curbing the escalation of the major stressors on the Reef in favour of small-scale restoration projects such as underwater fans, coral sunscreen and coral gardens.

The Academy is also concerned about the redirection of funding from experienced and well-established Commonwealth agencies such as the Australian Institute of Marine Science (AIMS),

CSIRO, and the Great Barrier Reef Marine Park Authority (GBRMPA), in favour of a non-governmental organisation (NGO).

The Package

The new \$444 million package, to be administered by the Great Barrier Reef Foundation, includes:

- \$201 million towards improving water quality. In recent years, this funding stream has been paid directly to natural resource management organisations (NRMs) by the Commonwealth. This level of funding is insufficient to meet the water quality targets of the 2050 Reef Plan. In a 2015 report,¹ the Queensland Audit Office assessed the management of water quality in GBR catchments up to 2013, concluding:

Land management practice programs are not achieving the changes needed to realise the Reef Plan goal within the established timelines and the extent and sustainability of change is not being comprehensively monitored at the farm scale.

It also found:

The lack of incentives and disincentives combined with poor communication have seen a slow industry take-up in some voluntary improvement programs.

- \$100 million for research on coral resilience and adaptation. Normally, this type of funding would go directly to experienced and well-established Commonwealth agencies such as AIMS, CSIRO, and GBRMPA, in partnership with specialised and experienced researchers.
- \$48 million for culling Crown-of-thorns starfish. Currently, the Commonwealth funds GBRMPA for this purpose, who in recent years have contracted this activity to the Reef and Rainforest Centre in Cairns. An investigation by the Australian National Audit Office² concluded in November 2016 that the Department of the Environment and Energy was unable to provide any evidence that the starfish culling program, among some other Reef Trust programs, was a proper use of public funds. Culling has failed to curb the spread of current starfish outbreaks through the Great Barrier Reef.
- \$45 million for community engagement, and \$40 million to enhance monitoring and management on the GBR. These are also activities that have been performed historically by GBRMPA and AIMS, the two most relevant Commonwealth agencies.

While the \$444 million package is a substantial investment, it appears insufficient given the magnitude of the task and is not commensurate with the recognised value of the GBR annually to the Australian economy.

¹ *Managing water quality in Great Barrier Reef catchments. Report 20:2014–15*, Queensland Audit Office. See https://www.qao.qld.gov.au/sites/qao/files/reports/rtp_managing_water_quality_in_great_barrier_reef_catchments.pdf

² *Reef Trust—Design and Implementation*, Australian National Audit Office. See <https://www.anao.gov.au/work/performance-audit/reef-trust-design-and-implementation>

Responses to the Terms of Reference

The Academy makes the following submission and recommendations in response to the terms of reference (a-g) of the Senate enquiry:

a. the delivery of the Reef 2050 Plan, including through the Great Barrier Reef 2050 Partnership Program and through other avenues

The Academy contends that the objectives of the Reef 2050 Plan will fail to achieve its objectives if funding for improving water quality is not increased. Reduction in nutrients and sediment from rivers flowing into the GBR is far short of target levels. Particularly noticeable is the small reduction in dissolved inorganic nitrogen - 17% compared with a target of 50%. This nutrient is most closely linked with crown-of-thorn starfish infestations. In this regard, the new package merely represents business as usual. The Academy recommends increasing the level of funding for water quality, to be paid directly to NRMs. While improving water quality will not prevent future bleaching events, it can improve the capacity of the Reef to recover.

The Academy is also concerned that no effective action to address climate change is proposed. Meaningful and effective action on climate change is critical to the Reef's long-term survival. During its 41st session the World Heritage Committee adopted a decision to "*strongly invite all State Parties... to address Climate Change under the Paris Agreement at their earliest possible opportunity...consistent with their obligations within the World Heritage Convention to protect the Outstanding Universal Value of all World Heritage properties*".³

The Academy notes this is the first time the World Heritage Committee has explicitly linked stewardship of World Heritage Areas with nations' policies for mitigation of greenhouse gas emissions.

b. the proficiency of the Great Barrier Reef Foundation and its capacity to deliver components of the Reef 2050 Plan

The Australian Government is responsible for coordinating delivery of the Reef 2050 Plan. The Academy does not wish to comment on the proficiency of individual entities working with the Government but considers that the delivery of the Reef 2050 Plan should remain the responsibility of the Commonwealth working in conjunction with the State of Queensland, as should reporting on the Plan's outcomes to UNESCO.

c. the proficiency of other organisations and their capacity to deliver components of the Reef 2050 Plan

The Academy notes that agencies including GBRMPA and AIMS, as well as a number of NRMs have significant experience and expertise relating to land care, applied Reef research, and meeting Australia's commitments to UNESCO.

³ World Heritage Committee. 2017. "Decision: 41 COM 7, Climate Change." State of Conservation of the Properties Inscribed on the World Heritage List. Krakow: UN. <http://whc.unesco.org/en/decisions/6940>.

- d. the process of granting funding to the Great Barrier Reef Foundation for the Great Barrier Reef 2050 Partnership Program, the terms of agreement for funding, and the ongoing administration of funding*

The Academy holds that processes for allocating public funding for research on the GBR must be premised on excellence, focused on scientific priorities, and supported by rigorous and transparent processes of peer review.

- e. the prior activities and operations of the Great Barrier Reef Foundation, including research, public-policy advocacy and fund-raising*

The Academy does not have a view on this matter.

- f. the establishment, governance and membership of the Great Barrier Reef Foundation, including the management of conflicts of interest and commercial interests*

The Academy is confident that the Great Barrier Reef Foundation working with its scientific advisors and with other stakeholders will develop processes to ensure appropriate rigour and transparency in its activities and funding decisions. In particular, the Academy proposes that individuals who provide an advisory role to the Foundation should not also be recipients of public funding.

The Academy would be pleased to provide further information or explanation of this submission.

Please contact Dr Stuart Barrow
this submission further.

if you wish to discuss

Yours sincerely

Professor David Day FAA
Secretary Science Policy