

AUSTRALIAN ANTARCTIC SCIENCE COUNCIL

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Joint Standing Committee on the National Capital and External Territories
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Dear Committee Secretary

The Australian Antarctic Science Council (the Council) thanks the Joint Standing Committee on the National Capital and External Territories for its invitation to provide this submission to the inquiry into the importance of Antarctica to Australia's national interests. This submission outlines the recent achievements of the Council that align with the terms of reference and highlights the need to increase the focus of our research efforts that support Australia's Antarctic priorities, including through interdisciplinary, interagency, and international collaboration.

The Council was established in 2019 to provide strategic advice to Government, and guide Australian Antarctic research entities on science outcomes that meet Australian Government requirements to support national Antarctic interests. The Council is chaired by an independent member with demonstrated leadership in governance and/or science. The Council is made up of two independent members as well as ex-officio seats held by leading organisations and agencies that contribute to Australia's Antarctic science. The Australian Antarctic Science Program comprises the Commonwealth-funded Antarctic science undertaken by the Australian Antarctic Division, universities, and Commonwealth agencies, all of which are represented on the Council.

Science plays a core role in advancing Australia's Antarctic and national interests in two key and interacting ways. Firstly, science is the currency of influence within the Antarctic Treaty System. Secondly, science grows our understanding of the physical and biological realms of Antarctica, including helping us to understand global environmental and climate science. Our scientific activities preserve our sovereignty over the Australian Antarctic Territory, and our collaborations foster shared understanding and leverage greater soft diplomatic influence. The Antarctic Strategy and Action Plan supports Australia's position as a leader in Antarctic science and demonstrates the Government's continued commitment to Antarctic science.

The 2023–24 Australian Antarctic Science Program continues Australia's long-term success in Antarctic science and delivered an outstanding season, supporting 41 projects across multiple disciplines. This success was achieved through careful coordination of the Australian Antarctic Program along with strong collaborations with Australian and international research programs and institutions. These initiatives delivered science that upheld the principles of the Antarctic Treaty System and will inform national and global decision-making about climate change and environmental management.

The Denman terrestrial and marine campaigns are examples of the multi-agency, inter-disciplinary approach that is needed for high-impact climate science in Antarctica. The Denman Terrestrial Campaign involves 12 projects, 27 scientists from a range of universities and government organisations, 4 different science funding sources, and support through Australia's Antarctic Program. During the 2023–24 season, scientists from the Australian Antarctic Division, the Australian Centre for Excellence in Antarctic Science, Securing Antarctica's Environmental Future, and the Australian Antarctic Program Partnership spent eight weeks working on a range of projects captured in the Denman Terrestrial Campaign. Science included the drilling of ice cores, hydrology analysis, oceanographic measurements, ice sheet geophysical surveys, geological studies, remote

sensing, biodiversity surveys, landscape and ocean mapping, and the deployment of autonomous monitoring stations. This campaign demonstrates a shift from individual science projects to collaborative campaign-style activities that have greater impact, which further strengthens Australia's world-class scientific leadership.

Key outcomes of this campaign include improving our understanding of processes that can be incorporated into prediction models for global environmental and climate science. These outcomes will inform decision-makers and the government and provide a valuable contribution to economic and social development in Australia, in our region, and globally.

Over the last few years, the Council has progressed with work achievements that are relevant to the inquiry's terms of reference. These are articulated below.

1. Review of the Australian Antarctic Division (AAD) Science Branch 2021 (O'Kane Review)

In 2021, the AAD commissioned a review to understand the quality, relevance, and impact of the Australian Antarctic Science Program. The review identified eleven recommendations for strategic change. The key recommendations included a Decadal Plan for Australian Antarctic science, an Integrated Digital East Antarctica initiative, and a long-term East Antarctica Monitoring Program. The Council sponsored the development of the Decadal Plan suggested in the Review and will continue to work with all stakeholders towards its finalisation and approval.

2. Review of the Australian Antarctic Science funding Model 2023

In February 2023, the Minister for the Environment and Water requested that the Council advise on options for a funding model in the context of the Decadal Plan for Australian Antarctic Science currently under development.

The review made three recommendations: the current terminating science funding measures be made ongoing, consolidate funding into DCCEE, and consider establishing the Australian Antarctic Division as a Commonwealth agency. These recommendations would set up the Decadal Plan for success. The Government is considering the review.

3. Australian Antarctic Science Decadal Plan

In 2022, the former Minister for the Environment asked the Council to develop a Decadal Plan for Australian Antarctic Science to direct the efforts of the Australian Antarctic research community. This plan seeks to identify priority science outcomes to be achieved during the next decade. This work is underway and has involved strong engagement with researchers across the Australian Antarctic Program. Minister Plihersek was briefed by the Council on progress towards the Decadal Plan in February 2024.

The above-mentioned work relates to two fundamental and ongoing questions for the Australian Antarctic Science Program: what science should we be doing, and how should that science be administered? Australia's national interests in Antarctica, which will continue to evolve, provide the critical context for addressing these questions.

On behalf of the Australian Antarctic Science Council,

Dr Nick Gales
Chair, Australian Antarctic Science Council

References:

Review of the Australian Antarctic Division Science Branch 2021 (the O'Kane Review)
https://www.antarctica.gov.au/site/assets/files/57785/aad_science_branch_review_report.pdf

Antarctic Strategy and Action Plan
<https://www.antarctica.gov.au/about-us/antarctic-strategy-and-action-plan/>

Australian Antarctic Science funding Model: A Review by the Australian Antarctic Science Council
https://www.antarctica.gov.au/site/assets/files/53931/australian_antarctic_science_council_-_attachment_a_-_aasc_funding_model_review.pdf

Australian Antarctic Science Decadal Plan: Development update October 2023

https://www.antarctica.gov.au/site/assets/files/53931/decadal_plan_update_for_antarctic_program_october_2023.pdf

Denman Terrestrial Campaign – Understanding the Denman Glacier

<https://www.antarctica.gov.au/science/climate-processes-and-change/antarctic-palaeoclimate/denman-terrestrial-campaign/>