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National Committee for Agriculture, Fisheries and Food submission to the review of the Australian Research Council

The National Committee for Agriculture, Fisheries and Food welcomes the opportunity to provide a submission to the review of the Australian Research Council.

The National Committee for Agriculture, Fisheries and Food is a committee of the Australian Academy of Science which fosters the key scientific disciplines underpinning productive and sustainable agriculture, fisheries, and food industries in Australia.

The members of the NCAFF fully support the recommendations made in the Academy submission to the ARC review. This submission specifically addresses matters relevant to our area of expertise. Australia's unique rural research funding model plays an important role in international research aimed at supporting national and global food security.

The Committee recognises that the ARC supports programs of importance to building Australia's agricultural, fisheries and food research capability.

However, the committee has identified gaps and provides the following advice:

- A strategic framework for agriculture, fisheries and food research should be developed and used to assess the potential impact of research activities. The framework should include strategic assessment of food supply and production challenges, national agricultural research priorities, and a definition of research impacts.
- The quality of project assessments is hindered by the limited engagement of international experts.
- Support for Australian participation in international research partnerships is inadequate to capture the benefits of multinational programs.

A strategic approach to building the research pipeline

Good coordination and collaboration between research funding and investment agencies would help ensure a good balance of investment, from basic research to practical delivery. The framework should cover the spectrum of research and be developed in partnership with the different national research funding and investment agencies. It should acknowledge the specific role and purpose of each funding and investment agency, including the ARC's central role in supporting fundamental research.

Support for agricultural, fisheries and food research can come from multiple sources, with different priorities from those of the ARC. For example, the Rural Research and Development Corporations have provided important investment in developing Australian research, but are responsive to levy-payer demands and are focused on delivery, practice change and on-farm demonstration of research outcomes.

There are significant gaps in the strategic coordination of Australian agricultural research between funding agencies. As noted in the [Decadal Plan for Australian Agricultural Sciences 2017-2026](#), high-risk, long timeframe research often falls between the responsibilities of different research funders and investors. Such projects offer substantial promise in addressing the long-term viability of our food production sector.

A strategic framework for agricultural research would also support impartial assessment of claims for impact. Many research projects identify agricultural innovations as outputs of their activities, but the basis for these claims is not always apparent or measurable. An assessment of the major challenges facing food production in Australia would provide a structure for assessing these claims.

Quality of application assessment

Reduction of the administrative burden for applications would improve reviewer recruitment, especially of well-qualified international reviewers, and improve the overall assessment quality. Based on personal experience, NCAFF committee members have found that the ARC appears to struggle to recruit international reviewers for major research proposals. Discovery applications require a large amount of information, much of it irrelevant for assessment. This is a significant barrier to recruitment of international reviewers.

The assessment process emphasis on track record over research innovation creates a bias towards established researchers, particularly in the applied science disciplines associated with the expertise of this committee. Once a threshold of expertise and capability of the investigators and the host institution is established, further assessment should be blind to open funding opportunities to a more diverse pool of researchers.

Support for international engagement

Dedicated mechanisms for Australian researchers to participate in international consortia or research programs would substantially benefit Australia and our overseas partners. The European Union, for example, is currently investing in large research programs as part of the Farm to Fork agenda. This program aims to reduce agricultural inputs and adapt to a more variable climate. Low-input agriculture is of great importance to Australia and an area where we have good expertise. Participation of Australian researchers in these programs would require a mechanism to support the Australian component.

To discuss or clarify any aspect of this submission, please contact Dr Stuart Barrow, National Committees Manager, at stuart.barrow@science.org.au.