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PRE-BUDGET SUBMISSION















Prepared For:

The Hon Michael Sukkar MP

Australian Citizen Science Association

c/o The University of Sydney Sydney NSW 2010

Australian Citizen Science Association 2022-2023 Pre-Budget Submission

An introduction to citizen science in Australia

The Australian Citizen Science Association (ACSA) welcomes the opportunity to contribute to the identification of priorities for the 2021-22 Federal Budget.

Citizen science is a growing movement endorsed internationally by UNESCO, that fosters the participation and collaboration of volunteer scientists and community participants (or "citizen scientists") in practical real-life science projects. Its aim is to draw on the extensive practical experience that exists within communities to enhance scientific investigation and increase knowledge about many aspects of modern life. Impacts of citizen science projects can be broad, affecting sectors such as the economy, education, health, the environment, society and governance. Data collected by citizen scientists is increasingly referenced in scientific publications (some now even list the citizen scientists as co-authors) and to inform planning and policy decisions. Indeed, many large-scale and long-term projects would not be possible without the contributions of citizen scientists. Examples of citizen science projects include: tracking bushfire recovery, monitoring air quality for asthma sufferers, monitoring weed infestations in rural areas, monitoring wildlife populations (e.g., koalas), assessing microplastic pollution hotspots and tracking mental health issues associated with COVID restrictions. In an Australian context, citizen science has been recognised as a key action and contributor for biodiversity monitoring and engagement in Australia's Strategy for Nature, Australia's Threatened Species Strategy 2021-2031 and State of the Environment reporting at both the <u>national</u> and <u>state/territory</u> levels. A key citizen science partnership is with the Atlas of Living Australia - where around half of its species occurrence records have been contributed by citizen scientists. Further project examples are available here.

Citizen science has played a significant role in bushfire recovery efforts throughout Australia, particularly after the catastrophic fires of 2019/2020.

ACSA is Australia's national representative membership association for citizen science. It is a volunteer-led, member-based, incorporated association that seeks to advance and support citizen science. In the seven years since its inception, ACSA has grown to include 30 organisational members, over 380 individual members, and five regional chapters. Our newsletter reach is over 2,000, and we have over 5,000 followers across the major social media platforms.

While citizen science does not have direct involvement in the current National Manufacturing Priorities, it does provide a unique opportunity for promoting, fostering and supporting community engagement in most fields of research and for providing a reliable evidence base for future development in many policy areas.

Recommendations

Below, we have set out four recommendations that would enable citizen science in Australia to be developed to the next level, assist Governments to address research and policy data gaps and strengthen participatory democracy. ACSA is ready to expand on these recommendations and work with the Australian Government to tailor strategies that address our mutual objectives.

Recommendation 1: Endorse citizen science at the policy level in all Australian Government departments and instrumentalities.

Many organisations and some governments recognise the incredible potential of citizen science to contribute to economic advancement and social cohesion. Geoscience Australia, NSW Department of Planning, Industry and the Environment and numerous local governments have recognised this and have citizen science policies and programs in support of their organisational objectives. We encourage the Australian Government to validate the contribution and important role of citizen science by promoting policies that advocate the involvement of volunteer scientists and draw on the extraordinary experience and knowledge of community members wherever possible. Such involvement will add value to project outputs and increase community ownership, at no extra cost.

Recommendation 2: Establish a Citizen Science Grants Fund (CSGF) of \$20 million (supported by all departments and instrumentalities).

ACSA currently runs a small grants program for seeding citizen science projects. We could achieve so much more with a larger program designed to address research gaps across a range of disciplines and build citizen science capability and societal impact. Citizen science can help solve regional, national and global challenges. Its inclusive research approach empowers and gives agency to communities and individuals to contribute to science that addresses the many challenges facing society and nature (see examples above). It also provides significant opportunities for Aboriginal and Torres Strait Islander Peoples to co-design and participate in citizen science projects, to be based on their traditional lands and waters.

We envisage that citizen science research projects seeking to access grant funds will be required to demonstrate relevance to ACSA's own priority areas as well as key Government research and development priorities (e.g, National Manufacturing Priorities, Excellence in Research for Australia, and Engagement and Impact Assessment).

Recommendation 3: Support ACSA to increase its reach and impact across Australia and harness the passion and energy of Australian communities to contribute to science. \$300,000.

ACSA is the national face of citizen science in Australia.

The true potential of citizen science is yet to be fully realised in Australia. Participation in citizen science projects has been a source of purpose and relief during the challenges and setbacks of the last couple of years. Therefore, with so many communities and individuals keen to participate in citizen science projects, ACSA's centralised support is essential to providing a coordinated approach. In providing national oversight of the citizen science grants program, ACSA guarantees that approved projects include appropriate performance measures and that they address Government and ACSA priorities.

In addition to overseeing the Citizen Science Grant Fund, ACSA would develop and expand initiatives in the areas of national research projects, engagement and impact assessment, educational programs and building international partnerships, e.g., in the Asia-Pacific. We would work closely with policy makers to embed citizen science in research and monitoring projects across a range of areas including health, climate, food and water security, biodiversity and environment protection.

Recommendation 4: Evaluate the impact and value of citizen science in Australia. \$250,000

Citizen science in Australia has experienced huge growth over the past 10 years across communities, government, research and NGOs. ACSA lacks the financial resources to establish an evidence base for clearly demonstrating the economic and cultural value of the growing range of citizen science activities. This solid operating base is essential for confirming the beneficial economic, social, cultural, and environmental outcomes that citizen science supports and brings to governments. A significant proportion of the impact of projects happens after the data collection stage and specific project funding rarely extends beyond this point.

We need to establish clear evidence-based data that measures the return on investment represented by the application of citizen science approaches to critical issues. This means we need to accurately quantify the social, environmental and economic impacts of any funding provided by government, private, community and philanthropic sources. We also need to develop an evaluation framework for consistently measuring, assessing, and evaluating the impact of citizen science projects themselves. This would provide a best-practice benchmark and toolkit for use within Australia and also contribute to international benchmarking for this sector.

For further information about this application, and about ACSA, please contact: Dr Annie Lane (Chair, ACSA)

Email: chair@citizenscience.org.au