

Committee Secretary
Joint Standing Committee on Foreign Affairs, Defence and Trade
PO Box 6021
Parliament House
Canberra ACT 2600

6 May 2020

By email: jscfadt@aph.gov.au

Dear Secretary,

The Australian Academy of Science (the Academy) welcomes the opportunity to make a submission to the inquiry into strengthening Australia's relationships with countries in the Pacific region (the Inquiry) currently being undertaken by the Joint Standing Committee on Foreign Affairs, Defence and Trade.

The Academy makes the following recommendations to the Commonwealth:

- **Support a coordinated program to develop and leverage science diplomacy as a strategic national capability, including funding for Australia's academies to conduct science diplomacy activities.** Science diplomacy has great potential to enhance the impact and realisation of Pacific Step-up priorities. In its role as an independent provider of authoritative science advice, together with robust global linkages, the Academy is uniquely positioned and equipped to facilitate science diplomacy.
- **Work with cross-sector stakeholders, including government, to ensure resources and funding are available to sustain long-term Australian engagement through the International Science Council and its global network in the Pacific, to maximise scientific and strategic impact.** The Academy has a [comprehensive strategic framework](#) for maximising engagement with the ISC and its global network. We are leading the development of an Oceania Regional Chapter for the International Network for Government Science Advice (INGSA). This is a critical opportunity to advance Australia's presence and scientific leadership in the Pacific region. Through our role in the INGSA Oceania Regional Chapter, we can facilitate dialogue and consultation with national and regional stakeholders on possible opportunities for advancing Pacific Step-up strategic priorities.
- **Support the Academy to leverage its unique position as the representative for Australian science on the international stage, and its national convening power of the National Committees for Science and Fellowship, to facilitate dialogue between trans-Tasman and Pacific stakeholders.** By engaging stakeholders such as those in government, academia, the Pacific Community and Pacific Learned Academies (such as the Royal Society Te Apārangi of New Zealand), we can enhance coordination, identify synergies and opportunities for collaboration, and support Pacific Step-up objectives to advance the interests of the region.
- **Continue to fund the Global Innovation Strategy (GIS) that is the key international measure of the National Innovation and Science Agenda.** An important component of the GIS is the *Regional Collaborations Programme* that aims to build strong regional linkages in

the Asia-Pacific by funding multi-partner activities that facilitate greater science, research and innovation collaboration in delivering innovative solutions to shared regional challenge.

Science is a strategic national capability

Science has a critical role to play in fostering and upholding sovereignty, stability, security, and prosperity of the Pacific. Timely science-informed action is key to securing Australia's long-term leadership in the region, by addressing imminent and ongoing effects of climate change and natural disasters, improving health and wellbeing, and developing sustainability and resource management in the unique Pacific context. Such actions have broad ranging impact on the Department of Foreign Affairs and Trade Pacific Step-up Priorities and Australia's overarching objectives in the Pacific.

Science diplomacy has great potential to enhance the impact and realisation of the Pacific Step-up priorities and Australia's soft power diplomacy in general. Science diplomacy is rapidly being recognised as a powerful diplomatic and soft power asset by governments across the world, and has great potential to enhance the impact and realisation of Australia's soft power diplomacy and the Pacific Step-up Priorities. Australia has a unique opportunity to harness the Academy's international activities as mechanisms for science diplomacy, enabling Australia to establish international leadership and expertise in this nascent strategic capability. The Academy's broad spectrum of bilateral, multilateral, and global engagement provides a ready-made infrastructure for mobilising resources, knowledge and experience.

Person-to-person connections are critical for enhancing grassroots scientific and technical capacity in the Pacific region, whether through direct development of local expertise or facilitating access to expert knowledge and input. Individual and institutional linkages facilitated by the *Regional Collaborations Programme*, international participation at Science at the Shine Dome and engagement with the Association of Asian Academies and Societies of Sciences in Asia (AASSA) as well as with the International Science Council (ISC) and international scientific unions, are proven-effective mechanisms which may be leveraged and readily tailored to progress Step-up objectives.

High-level engagement with the ISC and its global science networks provides a platform for advancing Australian interests and priorities, including in the Pacific, through shaping of global science priorities and input into global science policy dialogue. Considered and coordinated engagement with these networks will provide opportunities for strategic leverage of Australian priorities, including the Pacific Step-up. The Academy is ideally equipped to do so and would be willing to take a leading role in this coordinating position.

The Academy's international engagement

The Academy has forged a long and well-established track record of successfully managing international engagements and undertaking dedicated activities for the promotion and development of scientific linkages and relationship building, including on behalf of the Commonwealth Government.

The Academy interacts widely with scientists and officials from other academies of science, research organisations and governments in many countries to increase awareness of Australia's capabilities in science and technology, and to create opportunities to influence and contribute to international research agendas and policy development activities. Its international engagement is

guided by an Advisory Committee on International Matters (ACIM), which comprises Fellows of the Academy with extensive international expertise and advises the Academy's President, Foreign Secretary and Executive Committee on international activities.

Enhancing Australia's international science engagement is a pillar of both the Academy's International Engagement Strategic Plan (2017-2022) and overarching [Strategic Plan](#). Key objectives include contributing Australian expertise and leadership in regional and global science networks; facilitating Australia's access to global science and technology; and promoting strategic partnerships between Australian and overseas researchers. The Asia-Pacific region is a key focal point of the Academy's international engagements.

The Academy is a champion, practitioner and proactive facilitator of science as a soft power asset. As articulated in the Academy's [submission](#) to the Department of Foreign Affairs and Trade Soft Power Review, science should be leveraged as a soft power asset, and can play a much broader, deeper, and systematic role in allowing Australia to exercise influence, enhance leadership, and build strategic partnerships to advance Australia's prosperity and security.

The Academy will soon initiate a new Strategic Plan for international engagement to reflect pressing national, regional and global challenges for science and society, and advance strategic capabilities, such as Science Diplomacy and science-as-soft-power. The Academy welcomes opportunities arising through the Inquiry for further engagement with government and sectoral stakeholders, as part of our strategic planning to identify opportunities which bring together and leverage the Academy's international networks to advance Australia's scientific and international strategic interests.

The implementation of Australia's Pacific Step-up as a whole-of-government effort to deepen and coordinate Australia's Pacific initiatives

The Academy contributes to and supports the realisation of Australia's Pacific Step-up priorities primarily through its program of scientific international engagement. The actions identified in the 2017 Foreign Policy White Paper (strengthening people-to-people links, skills and leadership; pooling resources and expertise; a strengthened response to disasters; and, bilateral and regional partnerships in the Pacific), are realised by the Academy through existing activities supported wholly or in-part by grant/s from the government in three key areas as follows:

1. Multi- and bilateral linkages through the Regional Collaborations Programme

The *Regional Collaborations Programme*, a component of the Global Innovation Strategy, is administered by the Academy on behalf of the Department of Industry, Science, Energy and Resources. The strategy is a plan to enhance international collaboration by building strong research and business connections with the Asia-Pacific region.

The *Regional Collaborations Programme* focuses on strengthening international linkages through Australian-led research projects and workshops in collaboration with Asia-Pacific regional partner universities and businesses to foster solutions to shared regional challenges.

The programme awards funding of up to A\$3.2 million to support collaboration in our immediate region. The projects are building strong regional partnerships across a wide range of fields including agricultural and environmental sciences, transport and construction, health, manufacturing, and

materials sciences. Some of the Australian-led collaborative projects are helping to address a range of health, technological and environmental challenges, including the Asia-Pacific affordable housing crisis, tackling hepatitis B, battery recycling, malaria, and coastal water quality monitoring. The programme also supports greater mobility among our technical and research workforce and builds Australia's research capability by linking to global science and research networks and infrastructure.

2. International participation at the Academy's Science at the Shine Dome

Science at the Shine Dome is a three-day event in May each year where Australia's most influential scientists gather at the Shine Dome in Canberra to celebrate science and to honour outstanding achievements in science. At this event, national awards are made, high achievers are admitted to the Fellowship of the Australian Academy of Science, and there is a high-powered symposium on an issue of national importance. In addition, the meeting aims to motivate and educate young researchers with a program for early- and mid-career researchers (EMCRs).

Since 2017, the Academy has sponsored up to four EMCRs from countries in the Asia-Pacific region to participate in the Science at the Shine Dome event, to strengthen scientific links with Australia's neighbouring countries and allow these young researchers to build new networks and contacts with Australian scientists. Academies in the region are invited to nominate one or two candidates who are at most 15 years post-PhD and conducting research in an area related to the theme of that year's program.

Participants selected by the Academy are supported with travel to Australia, in-country accommodation, meals and insurance to attend the event in Canberra. The Academy also organises a one-day program of site visits for the international participants to provide opportunities for face-to-face interactions and network building with Australian researchers

International participants have consistently reported having benefited both personally and professionally from attending this Academy flagship event especially through collaborations with Australian scientists and other contributors in their field of research.

Due to the impact of the COVID-19 pandemic Science in the Shine Dome will not be occurring in 2020.

3. Representing Australian science at the International Science Council (ISC)

Since 1954, the Academy has represented Australian interests at the International Science Council (ISC), formerly the International Council for Science (ICSU), as the Member Organisation for Australia.

The International Science Council is a non-government organisation representing both natural and social sciences, with a global membership of 40 international scientific unions and interdisciplinary science bodies as well as over 140 national and regional scientific bodies. These organisations convene scientists to coordinate research and address issues of global significance. The ISC was formed in July 2018 by the merger of the International Council for Science and the International Social Science Council. The Academy represented Australian at this historic event.

Funding for activities associated with fulfilling the Academy's responsibility for promoting and facilitating Australian engagement with the ISC and its global networks is currently derived from the annual grant-in-aid which the Academy receives from the government to support core functions.

In 2019, the Academy released a [report](#) summarising the strategic, reputational, economic and scientific benefits returned to Australia through membership of the ISC and international scientific unions, including:

1. Providing a valuable avenue to contribute to global science policy dialogue
2. Enhancing Australia's international profile and scientific reputation
3. Contributing directly to all levels of the Australian economy through hosting international scientific union meetings (est. A\$118 million between 2000 and 2017)
4. Accelerating delivery of the long-term economic benefits of scientific progress for Australia.

The convening power of the ISC is unparalleled. Its scope and activities include involvement in global science policy through the provision of high-level advice to UN bodies on the Sustainable Development Goals (SGDs), facilitating global fora on topics such as disaster risk and urban health, as well as championing the freedom of movement and association of scientists.

Australian science is very well represented within these organisations and networks through individual scientists who are actively engaged and contributing at multiple levels, from grassroots initiatives to high level leadership. The Academy, via its advisory committee, has played an active role in shaping priorities of the ISC through input to the [Science Action Plan](#) which spans four Domains, broadly applicable to nations globally. The Domain area on the 2030 Agenda for Sustainable Development directly facilitates realisation of Pacific Step-up Priorities in supporting capacity for navigating climate change, resilience and a strengthened response to disasters, as well as boosting scientific capacity for informed natural and fisheries resource management, in the Pacific region.

The ISC has established a Regional Office for Asia and the Pacific (ROAP) to strengthen the voice of scientists from developing countries in the region and to support targeted action to address regional needs and priorities. Membership of the ROAP Governing Board provides the Academy with a platform to advance Step-up objectives, in accordance with strategic priorities.

The ISC is actively engaged in scientific and research capacity building programs through discipline-based grassroots initiatives which directly support individuals. The Academy has a coordinating role in facilitating access to these mechanisms which directly build technical capacity, science linkages and collaborations between individuals through mobility grants, visiting research fellowships and workshops.

Exploring prospects to strengthen and broaden Australian engagement in the Pacific Step-up, through non-government and community-based linkages, and leveraging interest groups

Scientific and technical capability is critical to realising and maintaining long term leadership in the Pacific region, and is essential for strengthening climate and disaster resilience in the region.

A comprehensive framework for maximising engagement with the ISC and its international network has been laid out in a [strategy document](#) developed by the Academy in conjunction with the report on Benefits of Australian membership of the ISC and international scientific unions. Key priorities include:

- Boosting participation by working with cross-sector stakeholders, including government, to ensure resources and funding are available to sustain long term Australian engagement at the ISC and international scientific unions, to maximise scientific and strategic impact.
- Effectively and efficiently realising the Academy's responsibility for representing Australian science on the international stage, by work closely with stakeholders across the country.

The current ISC leadership has identified improving engagement with and increasing representation of science in the Pacific region as a high priority. As a key stakeholder and representative of the region, the Academy has recently been actively involved in discussions to explore mechanisms for enhancing engagement with the Pacific region. The current global science environment is therefore highly advantageous for enhancing and reaffirming Australian leadership in the region through the Pacific Step-up priorities.

Emerging opportunities

Scientifically informed decision making drives responses to present and ongoing global challenges, including climate change, disaster resilience and COVID-19. Engaging the Academy's international scientific networks to mobilise resources, knowledge and experience presents a crucial opportunity to demonstrate leadership in the Pacific.

As part of its portfolio of international engagements, the Academy is actively involved in a raft of initiatives which may present, both directly and indirectly, synergistic opportunities to advance Pacific Step-up priorities.

- **Oceania Nutrition Leadership Platform**

The Oceania Nutrition Leadership Platform (ONLP) is a joint Australia-New Zealand initiative, established through Australia's membership of the International Union for Nutritional Sciences (IUNS), which provides nutrition science training and capacity building for individuals in the Oceanic region. ONLP develops, inspires and connects a new generation of innovative, prescient leaders working in the field of nutrition throughout Oceanic countries from different sectors, including academia, research, industry and government, and are committed to working collaboratively towards food and nutrition security for Oceania.

- **Federation of Oceanic Nutrition Societies**

In partnership with IUNS, the Academy's National Committee for Nutrition is leading the establishment of the Federation of Oceanic Nutrition Societies (FONS), to support and bolster nutritional health in the Oceanic region.

Currently in the scoping phase, the National Committee is to identify, working with and seeking direct input from regional stakeholders, to develop a framework which is tailored to and directly addresses the unique needs and challenges of the region. Lessons learnt through the FONS scoping process can provide valuable insight, ensuring Step-up initiatives reflect the priority needs of the governments and people of Pacific island countries, and potentially identify cross-sector synergies.

- **Long-term strategic leadership through science diplomacy**

Modern science is built on partnerships and collaborations, surpassing national borders, in pursuit of innovative solutions to pressing global challenges. This can be clearly seen in the pan-national research effort in response to the COVID-19 challenge currently facing the globe. Beyond immediate health challenges, science-informed solutions are an important contributor to economic and societal resilience in the longer term, by enhancing economic productivity and competitiveness through innovation.

Future global challenges including climate change, poor sustainability, health threats and emerging diseases, energy and food security challenges, and natural disasters, will have a potentially profound impact on the long-term prosperity of Pacific nations unless they can be identified and effectively addressed. Australia has the potential to broaden and deepen the role of our scientific sector as a soft power asset, both as a producer of world-leading science through strengthened links with established partners and as a facilitator of science-informed solutions.

Australia's unique position in the Oceania region presents ample scope within the Step-up priorities to capitalise on opportunities to participate in and facilitate science and innovation in the Pacific region. This includes harnessing the scientific expertise and resources of independent bodies such as the Academy to support both immediate and ongoing Australian efforts on critical and potential issues such as emerging diseases and disaster management in the Pacific.

In its role as an independent provider of authoritative science advice, together with robust global linkages, the Academy is uniquely positioned and equipped to facilitate science diplomacy. The Academy has the capacity to maintain dialogue between nations in the presence of diplomatic challenges, fosters diplomatic links, hosts scientific delegations from regional and Asian neighbours and supports participation in events and conference that provide professional development to young researchers from the region.

Science diplomacy has great potential to enhance the impact and realisation of Step-up priorities and the Academy welcomes further discussion on leveraging its assets, capabilities and experience.

The Academy's position on the role of science as a soft power asset was articulated in our submission to the [soft power review](#).

- **Long-term strategic leadership in government science advice**

In demonstrating scientific leadership and enhancing the nation's presence and leadership within the Oceania region, through Pacific Step-up and beyond, Australia must work in a globally unique

geopolitical context, which is shaped by the regional socio-economic landscape that affects scientific and technological development and innovation, particularly in the Pacific Island nations.

The International Network for Government Science Advice (INGSA) is an affiliated network of the ISC which provides a collaborative platform for policy exchange, capacity building and research across diverse global science advisory organisations and national systems. INGSA is based in New Zealand, and maintains regional networks throughout the globe that aim to improve the use of evidence in informing public policy. The Academy has developed strong links with INGSA, and in April 2019 the Academy hosted a highly successful national workshop to explore the mechanisms for providing independent science advice to government and parliamentarians.

As a result of the ongoing collaboration between the Academy and INGSA, the Academy has been invited to lead the development of the INGSA Oceania Regional Chapter, presenting a critical opportunity to advance Step-up priorities, fortifying Australia's presence and scientific leadership in the Pacific region.

Australia and our regional partners would benefit greatly from broad cross-sector engagement and consultation, coordination and alignment of strategic interests. The development of the Oceania Regional Chapter will follow a staged approach, building on recent activities undertaken by INGSA to develop a thorough understanding of and response to the unique challenges faced by regional stakeholders. As part of this process, there will be numerous opportunities for input and consultation, including submissions to a white paper, enabling participation from key stakeholders.

Enhanced, ongoing high-level engagement with global science-advice networks including INGSA directly facilitates the development of science-advice capabilities for practitioners, positioning Australia as a leader in the nascent science-advice professional development sector, which may subsequently be deployed as part of the Pacific Step-up to enhance the initiative's objectives.

An enhanced profile through increased engagement with ISC, INGSA, the Association of Asian Academies and Societies of Sciences in Asia and other global and regional science networks amplifies the strategic benefits identified in the [Academy's 2019 report](#). This will in turn enable more prominent roles in ISC science projects, such as the World Climate Research Programme, which is also sponsored by the World Meteorological Organisations and UNESCO. It will also enhance opportunities to engage with peak bodies including UNESCO and the Intergovernmental Panel on Climate Change, providing a complementary mechanism for shaping and influencing high-level priorities to maximise alignment with the needs and priorities of the region.

Measures to ensure Step-up initiatives reflect the priority needs of the governments and people of Pacific island countries.

Maximising the impact of Pacific Step-up requires identification and balancing of regional priorities and needs, coupled with sustained and effective implementation of Step-up priorities. This likely requires resources, including cash funding and expertise, which may not be easily accessible to some nations in the Pacific region.

To that end, it is important to remain aware of and coordinate actions with other representative groupings, networks and stakeholders which are key actors in the Pacific region, to ensure limited resources are spent as efficiently as possible.

As the representative for Australian science on the international stage, combined with the national convening power through the National Committees for Science and its Fellowship, the Academy is ideally positioned to facilitate dialogue, bringing together trans-Tasman and Pacific stakeholders (including government, academia, the Pacific Community and the Royal Society Te Apārangi of New Zealand) to enhance coordination, identify opportunities for collaboration to support Pacific Step-up objectives and advance the interests of the region.

For further information about this response, please contact Ms Nancy Pritchard, Director International Programs and Awards (Nancy.Pritchard@science.org.au) or Mr Chris Anderson, Director Science Policy at the Australian Academy of Science (Chris.Anderson@science.org.au)