

FUTURE EARTH AUSTRALIA YEAR IN REVIEW: 2021



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AUSTRALIA



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Hosted by the Australian Academy of Science

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ISBN 978-0-85847-844-2

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FROM THE DIRECTOR

Writing this, in October 2021, is a bittersweet moment. It is bittersweet because, as I reflect on the year that has passed, it is clear that much has changed. Climate change impacts continue to rage across the world, where we have now witnessed firsthand their increasing severity and frequency. The Covid-19 pandemic continues to cause waves of social, economic, and political instability, notwithstanding the amazing efforts of science in developing vaccines. In Australia, the higher education sector continues to transition, a transition that sees shifting course priorities, changing student demographics, and evolving employment arrangements for our talented academics. Amid all of this, the role of sustainability science and innovation has never been clearer. Future Earth, and Future Earth Australia, are ready, willing, and able to chart the course forward, and to lead all of us on the paths we must all take, in enabling a sustainable future.

This is also a bittersweet moment as, after nearly four years, I have resigned from my role as Director of Future Earth Australia. It's been a wild and wonderful ride. When I stepped into this role, Future Earth Australia developed two business plans in less than two years, and my predecessor spent but one year in the role. Combined, these meant

that Future Earth Australia was still in a process of determining precisely what it did, for whom, and to what end: in other words, its value to both our members and to the sustainability community. We have come a long way over the past few years. We have developed and delivered a program that has at its foundations national policy and agenda contributions and influence; global, regional, national, and local engagement and advocacy; capacity building and enabling future sustainability scientists and innovators; and enabling partnerships across sectors and scales, including enabling funding. We have worked with global funders and partners to shape and deliver the world's first Sustainability Research and Innovation Congress (SRI2021) and in doing so, we have walked the talk of thoughtful and considered engagement of the global south in Future Earth activities. Closer to home, we have checked our own privilege and sat back, listened, and elevated First Nations' voices and perspectives in our own work.

In all of this, the Future Earth Australia Secretariat, our Steering Committee, our Advisory Committee, and our members and funders have each played a critical role by leaning in and supporting this important work. As I depart from this role, I want to explicitly thank each and every



one of you. You are all wonderful, kind, clever, and thoughtful people. An equitable and just transition to a sustainable society and a climate adapted world needs such people. An equitable and just transition also needs all sectors, at all scales. And we know that without networks such as Future Earth, our ability to collaborate effectively, and to achieve influence and outcomes while doing so, is greatly diminished. I will continue to support and champion the work of Future Earth from my new role.

Dr Tayanah O'Donnell

A REFLECTION FROM THE CHAIRS



PROF. JUAN SALAZAR AND JOANNE CHONG CO-CHAIRS, FUTURE EARTH AUSTRALIA STEERING COMMITTEE

Despite the ongoing instability that COVID-19 brought in 2021, Future Earth Australia charged ahead to deliver several pertinent and inspiring initiatives with the support of its members and collaborators. The beginning of the year was particularly fruitful with the launch of Future Earth Australia's second decadal initiative, the Sustainable Oceans and Coasts Strategy, and our hosting of the Reimagining Climate Adaptation Summit with the support of the Institute for Culture and Society (Western Sydney University) and Sydney Environment Institute (University of Sydney). Then in June, Future Earth Australia brought together more than 700 speakers and 2000 participants from around the globe, to meet online and in-person in Brisbane at the Sustainability Research and Innovation 2021 Congress. Amongst a challenging year, this transdisciplinary sustainability event provided a welcome, recharging opportunity for global sustainability leaders, experts, industry, and innovators to connect with each other, and unite behind action for sustainability.



Shifting social, political, and economic landscapes are sharpening the focus on climate change and equity, and there is no better time for Future Earth Australia to build on its foundations to further Australia's contribution to SDG13 Climate Action and SDG10 Reduced Inequalities. We are pleased to announce 2022 will see the development of the National Strategy for Just Adaptation, and hosting of a satellite event for SRI2022. These continue to be critical spaces for nurturing our emerging leaders across disciplines and sectors, and advancing sustainability through maximising all the strengths of many knowledge and practice approaches.

We hope you enjoy reading about the year's achievements.



PROFESSOR IAN CHUBB FAA FTSE, CHAIR, FUTURE EARTH AUSTRALIA ADVISORY COMMITTEE

The big issues, in terms of our vision for science and for the nation, continue to require the input, expertise, and guidance of our scientists. As I noted in Future Earth Australia's 2020 Year in Review, Australia's and the world's interests are best served by an unwavering commitment to embedding science and evidence-based principles into decision making, and global networks such as Future Earth, connected as it is to the International Science Council, are essential to achieving this. Throughout 2021, Future Earth Australia has continued to bring an air of distinction to its role in convening across disciplines, sectors, and scales to enable action in important areas, including for Australia's oceans and coasts and climate change adaptation.



POLICY AND AGENDA SETTING

SUSTAINABLE OCEANS AND COASTS

CONSULTATION OUTCOME PAPERS

Following the extensive national consultation process that Future Earth Australia conducted virtually at the end of 2020, a series of consultation outcome papers were produced. These papers synthesise the outcomes of the consultation workshops conducted in each state and territory across the nation. Attendees of these workshops represented a broad cross-section of ocean and coastal users, including the research sector, all levels of government, industry and business, Traditional Owners and managers across Country, and civil society and community. The papers summarise discussions held around the fundamental elements of a national strategy for sustainable oceans and coasts in Australia, including vision, knowledge, institutional design and governance, community engagement, and implementation.

The consultation process for this strategy was generously supported by the Lord Mayor's Charitable Foundation.

STRATEGY WRITING AND VALORISATION

The Sustainable Oceans and Coasts National Strategy 2021-2030 was written in early 2021 by combining the findings from the consultation workshops with expert guidance and advice from the Expert Working Group. We finalised an exposure draft in April and then undertook a second round of valorisation via two high-level roundtables, conducted in-person in Canberra, and virtually. Attendees represented senior experts across government, philanthropy, industry, and the non-profit sector, who provided high-level feedback and assessments to improve the draft.

This feedback was invaluable and helped support the formulation of the final strategy document. The strategy includes seven recommendations that provide support systems in achieving



Outcomes papers were produced for the consultation workshops in each state and territory. They are available on our website: futureearth.org.au/initiatives/ocean-and-coastal-sustainability

sustainable oceans and coasts for Australia. Each recommendation is accompanied by an implementation roadmap consisting of tangible actions that can be taken to achieve the recommendations, ideas for the design and implementation phases of these actions, and further ideas for monitoring and evaluating the successes or learning opportunities that arise. There is also a description of the anticipated outcomes of these actions, and a suggestion of who might be responsible for delivering each of these activities, acknowledging that leaders from all sectors must play an active role in shaping and owning how they design and deliver sustainable oceans and coasts for Australia.

STRATEGY LAUNCH AT SRI 2021

We were pleased to launch the Sustainable Oceans and Coasts National Strategy 2021-2030 in June at the SRI2021 Congress in Brisbane. This virtual event featured presentations from several guest speakers as well as the Future Earth Australia Secretariat on the strategy and its recommendations.

First, Professor Martin Nakata, Pro Vice-Chancellor of Indigenous Education and Strategy at James Cook University and Expert Working Group member, officially launched the strategy. He acknowledged Indigenous people as Australia's First Peoples who have taken care of Country for the past 60,000 years. He spoke of the Future Earth Australia strategy as a cross-sectoral plan to achieve sustainable oceans and coasts across Australia, allowing us to imagine ourselves as part of a natural ecosystem rather than separate from or above nature, much in the way that Indigenous Australians understand their connections to land, sea, and Country.

Next was a presentation from Dr Beth Fulton, Principal Research Scientist at CSIRO Oceans and Atmosphere and co-chair of the strategy's Expert Working Group. She described key concepts that underpinned the strategy, including the 'blue ribbon' that extends from estuaries and catchments to coasts and oceans, connecting land and sea in one continuous strip around Australia. She also discussed the guiding themes of 'resilient coastal communities' and the 'blue economy' that must be achieved to prepare our communities for changing conditions and multiple cumulative impacts while using marine

resources sustainably and equitably. Together, these concepts fed into the overall vision of the strategy for "healthy oceans and coasts for a just and environmentally sustainable future".

Finally, Dr Russell Reichelt AO FTSE, Australian Sherpa to the High Level Panel for a Sustainable Ocean Economy, spoke about the Future Earth Australia strategy, highlighting the blue ribbon concept and overarching vision of the strategy as inspiring elements. He described the synergies between Future Earth Australia's strategy and the Transformations for a Sustainable Ocean Economy that were put together by the national leaders who comprise the High Level Panel for a Sustainable Ocean Economy. Dr Reichelt also spoke of the commitment that the national leaders on the Panel made to sustainably manage 100% of the ocean area under national jurisdiction by 2030, and said that "the work of this group [Future Earth Australia] are laying the groundwork for exactly the kinds of things that were the aspirations of the now 15 world leaders to transform to a sustainable ocean economy".



Professor Martin Nakata, Dr Beth Fulton, and Dr Russell Reichelt spoke at the launch of the Sustainable Oceans and Coasts National Strategy 2021-2030 at SRI2021.



The Sustainable Oceans and Coasts National Strategy 2021-2030 was launched in June 2019 and is available on our website: futureearth.org.au/publications/sustainable-oceans-and-coasts-strategy

STRATEGY SOCIALISATION

WITH OCEAN DECADE AUSTRALIA

Following the launch of the strategy at SRI2021, Future Earth Australia Director Dr Tayanah O'Donnell was invited to speak at Questacon in Canberra for an event hosted by Ocean Decade Australia. This stakeholder briefing, the second in a series, brought together a variety of high-level experts across the ocean and coastal space to discuss their various efforts to promote a sustainable future for Australia's oceans.

The panel discussion was moderated by Tony Worby, CEO of Flourishing Oceans at the Munderoo Foundation. Tayanah spoke about Future Earth Australia's strategy, its recommendations, and the goals for its implementation. She was joined by Dr Russell Reichelt AO FTSE, Sherpa to the High Level Panel for a Sustainable Ocean Economy, and Dr Patrick Hone, who spoke on behalf of the National Marine Science Committee. Together, the panellists explored the challenges and opportunities of creating a sustainable future for oceans and coasts in Australia over the next decade, including the importance of creating space for Indigenous leadership, the need for reliable and accessible data, and the coordination needed across scales of government to make key actions happen. A full recording of the panel discussion is available on the Ocean Decade Australia website.



Tayanah speaks on a panel at Questacon for an event hosted by Ocean Decade Australia.

STRATEGY AT THE 2021

COAST TO COAST CONFERENCE

To further socialise the Sustainable Oceans and Coasts National Strategy, Future Earth Australia presented at the 2021 Coast to Coast Conference in Cairns in July. Our team gave two plenary presentations to over 300 conference delegates, including a presentation on the strategy and its recommendations. We also held an implementation workshop on the first day of the conference that was well-attended and generated great interest in the strategy.

As a result of this socialisation, the conference delegates voted to formally endorse the strategy and urged the Australian Government to adopt and implement its recommendations. This endorsement was a welcome support for the strategy, as it was an organic movement by conference attendees who voiced great enthusiasm for the recommendations.

The delegates to the Coast to Coast Conference represented a diverse cross-section of leading marine and coastal experts, spanning government representatives, natural resource managers, community organisations, First Nations peoples, industry members, researchers, and consultants. This biennial conference is organised by the Australian Coastal Society, a not-for-profit organisation that promotes knowledge sharing and action in national coastal management.



Dr Taryn Laubenstein delivers a keynote on the Sustainable Oceans and Coasts National Strategy 2021-2030 at the Coast to Coast Conference in Cairns.

ONGOING SOCIALISATION

In addition to the socialisation opportunities described above, the Future Earth Australia Secretariat has been meeting with parliamentarians and their advisors, such as the Minister for the Environment, the Hon. Sussan Ley MP, to socialise the strategy with state and federal governments and discuss next steps for its implementation. These meetings are ongoing and taking place virtually, with tentative plans to meet in-person at the next available opportunity.

We thank the Expert Working Group for their contributions to the strategy, as well as the many stakeholders who participated in our consultation process and the high-level experts who contributed to our draft strategy roundtables. We are also grateful to the Lord Mayor's Charitable Foundation for funding this work.



NATIONAL STRATEGY FOR JUST ADAPTATION

Future Earth Australia is pleased to be dedicating our next decadal strategy to broadening and deepening the scope of Australia's climate adaptation agenda. The National Strategy for Just Adaptation will present a plan based on a reimagining of our approach to adaptation. As we explained in [The Conversation](#) this year, adaptation to climate change impacts could be more comprehensive and effective if we focus on leaving no one behind as the top-order priority.

This strategy will be developed by the Secretariat with the guidance of an expert working group that is co-chaired by Mr Bhaimie Williamson, Professor Petra Tschakert, and Dr Mark Stafford Smith. It will be the culmination of activities led by Future Earth Australia and collaborators over the past 12 months, which have included a state-by-state consultation process as well as the convening of the Reimagining Climate Adaptation Summit. With the IPCC Working Group II set to lay down the state of climate adaptation in February 2022, this strategy will progress a collaborative and constructive plan for meeting international benchmarks on best practices across Australia.

We would like to thank the Adaptation Working Group members for their consistent and thoughtful contributions and leadership in this space.

SUSTAINABLE CITIES AND REGIONS

The Sustainable Cities and Regions: 10-Year Strategy for Urban Systems Transformation launched in December 2019, and since then we have been engaged in socialising and implementing the strategy. The strategy garnered significant interest among federal parliamentarians and policymakers over 2020, though the onset of bushfires and COVID-19 had a significant impact on the policy agenda.

In 2021, we have engaged in lengthy discussions with philanthropic groups on their support for establishment of Urban Innovation Hubs and a network to connect their work, one of core recommendations of the Strategy.¹

1. Costanza-van den Belt, M., O'Donnell, T., Webb, R., Robson, E., Costanza, R., Ling, J., Crowe, S. and Han, H., 2021. Community Preferences for Urban Systems Transformation in Australia. *Sustainability*, 13(9), p.4749.



GLOBAL ENGAGEMENT

– SCIENCE FOR SUSTAINABILITY

SUSTAINABILITY RESEARCH & INNOVATION CONGRESS 2021

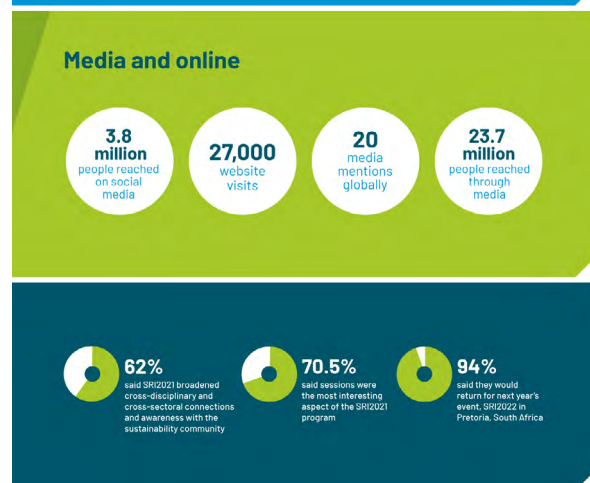
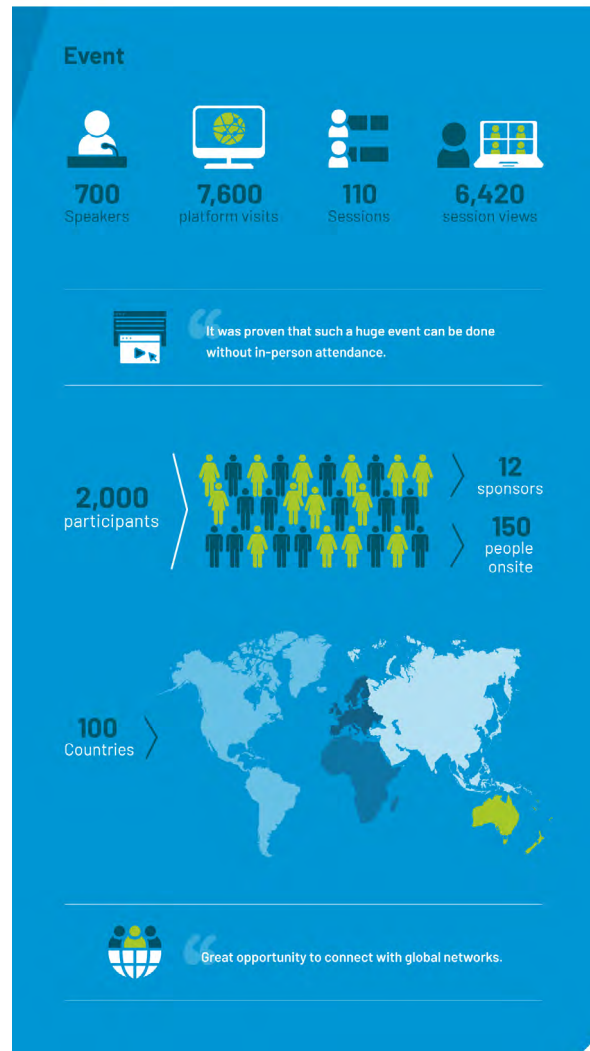
SRI2021 was the first global, transdisciplinary sustainability congress. It created a unique space to bring together people working across the sustainability landscape in different sectors, knowledge communities, geographies, and career stages. The purpose of the event was to establish a home for the sustainability community to foster knowledge sharing across fields, sectors, and communities, build capacity, undertake training, and forge networks and partnerships.

A consortium convened by Future Earth Australia and the Queensland Chief Scientist, comprised of five Queensland research entities (including Future Earth Australia members the University of Queensland, Griffith University, the University of the Sunshine Coast, and CSIRO), won its bid to host the inaugural Sustainability Research & Innovation (SRI) Congress in 2021. The congress was founded by the Belmont Forum and the global Future Earth program.

Initially scheduled for June 2020, SRI2021 was held 12–15 June 2021 as a hybrid event, with most programming taking place online due to the international cohort of attendees, while in-person events in Brisbane complemented the virtual elements. For instance, one in-person component was a Science and Sustainability Showcase hosted by the Office of the Queensland Chief Scientist on 12 June, which attracted over 3400 attendees.

SRI2021 had 2009 registrants, with 150 holding an on-site pass to convene in person. The largest portion of registrants hailed from Australia, but it was a truly international meeting with 100 countries represented among the attendees. Attendees were fairly evenly split across career stages, with even numbers of early, mid, and later career attendees. It was a cross-

SRI 2021



sectoral gathering, with over a third from academia, over a third from government, 12% from industry, and 11% from not-for-profits.

The program consisted of more than 100 formal sessions, 700 speakers, 20 project meetings, 20 social activities, and 13 on-site activities. Future Earth Australia worked hard to ensure that First Peoples' agendas and knowledge systems were centred and represented across the event, and additionally prioritised music and the arts.

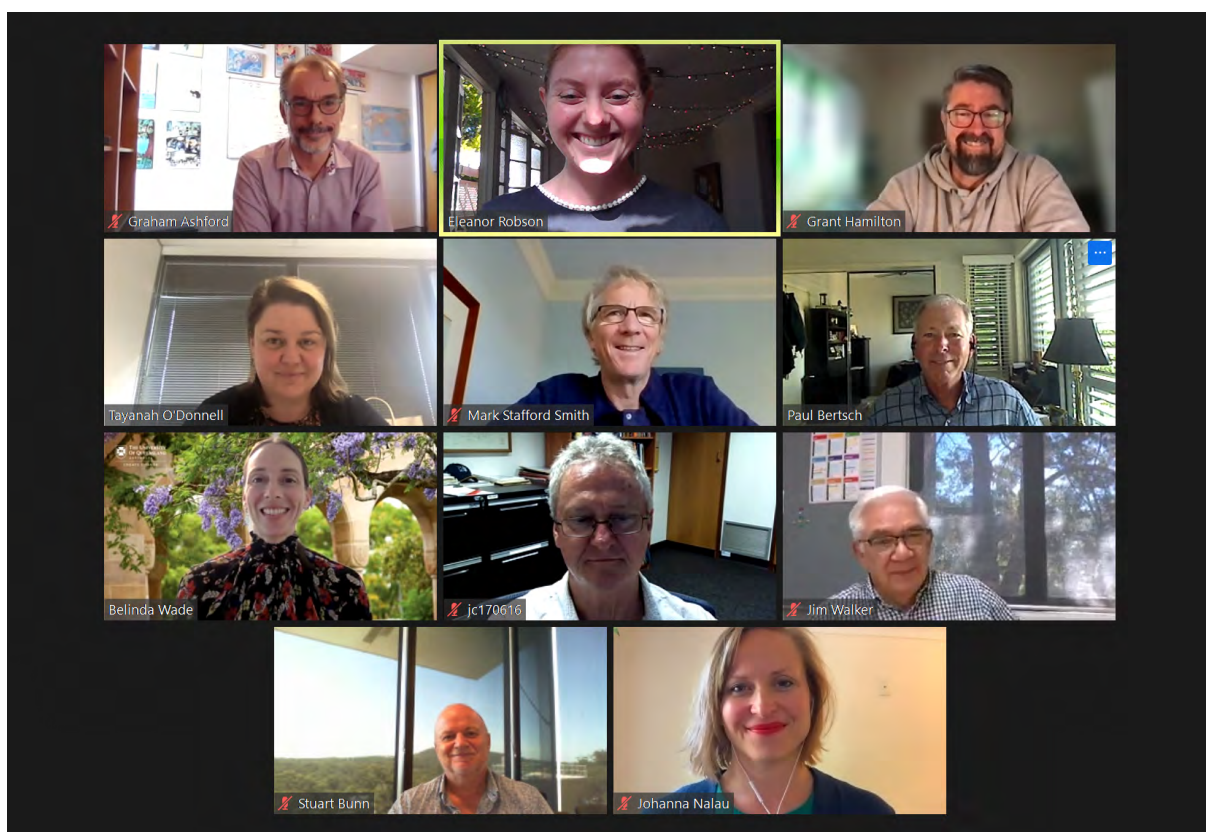
A key outcome of the event was the development of a Brisbane Message Stick. As the first hosts of an SRI Congress, the hosting consortium decided to create the Brisbane Message Stick. This is a collection of key actions to consolidate and implement major messages from the congress and invite a continuation of community-building and action across the world as SRI moves between hosts. Mr Jim Walker, a Jagera, Iman, and Goreng Goreng man, lecturer at the University of Queensland, and member of the SRI2021 Local Organising Committee, explained, "The Message Stick was used to convey messages throughout First Nations peoples here in Australia prior to the coming

of the Europeans and even after that event, until colonial rule made it a crime to practise culture and move freely on our own lands. The Brisbane Message Stick symbolically passes on learnings from one Congress to the next and offers an invitation for all peoples globally to the next event."

We were pleased to hear from a post-event survey that attendees overwhelmingly succeeded in broadening their cross-disciplinary and cross-sectoral connections and awareness, and most people said they forged new connections that they plan to maintain.

All programming from SRI2021 has been made freely available online until the end of 2021.

We thank our university partners, local organising committee members, sponsors, and international partners for their support and collaboration for over two years. Following the success of SRI2021, CSIRO and Future Earth Australia are exploring plans to host an Australian satellite event to coincide with SRI2022 in Pretoria, South Africa. We were pleased to hand hosting to another country in the Global South and look forward to attending next year!



The Local Organising Committee, one month away from SRI2021.



Welcome to Country by Aaron and Ash from Nunukul Yuggera.



The Future Earth Australia team visit the public sustainability science showcase.



Culture as the Fourth Pillar of Sustainability panel in Brisbane.



The Brisbane-based Accomplice Collective perform for a global audience.



SRI2021 Executive Committee welcome guests online and in Brisbane.



Local opening plenary speakers: Sharan Burrow, Josh Gilbert, Meg Parsons, and Stan Grant (moderator).



WORKSHOP FOR THE SCIENTIFIC AND TECHNICAL ADVISORY PANEL OF THE GLOBAL ENVIRONMENT FACILITY

Future Earth Australia, in partnership with the Scientific and Technical Advisory Panel of the Global Environment Facility (STAP/GEF), designed and facilitated a two-day workshop with social and behavioural scientists, systems thinkers, and project practitioners with the goal of providing guidance on the behavioural aspects of project design.

The workshop was attended by participants from a range of disciplines in the social sciences, environmental sciences, and physical sciences and representing a range of geographies. Highlighted findings from the workshop included:

1. Refine guidance at the project level to embed a holistic view of behavioural change based on social science and behavioural science.
2. Consider what information is needed to apply systems thinking in project design and implementation such that there is greater consideration of the interactions between social and behavioural sciences to foster behavioural change.
3. Undertake consultations to ensure long-term drivers of social change and environmental management are addressed by and through iterative learning flowing from project implementation.
4. Develop a process to ensure long-term capacity building with local peoples, empowering their self-determination and durable outcomes.



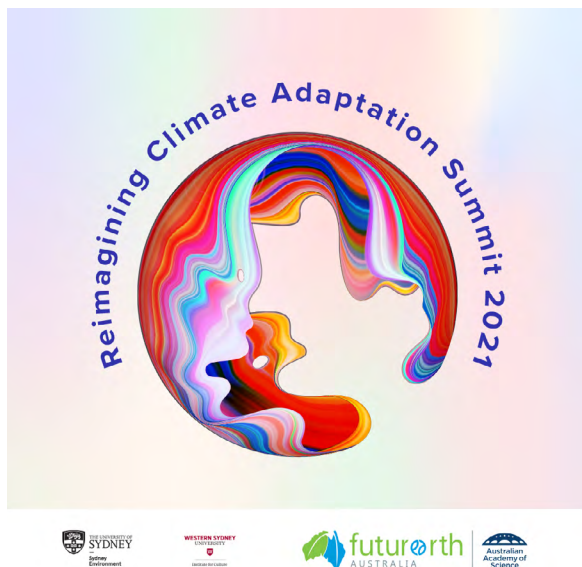
The full report is available on our website.
futureearth.org.au/publications/insights-how-social-and-behavioural-sciences-can-influence-project-outcomes



BUILDING COMMUNITY, CONVENING, AND OUTREACH

REIMAGINING CLIMATE CHANGE ADAPTATION

The Reimagining Climate Adaptation Summit was held 19–22 April 2021, led by Future Earth Australia and supported by the University of Sydney and Western Sydney University, and with the assistance of the Climate Adaptation working group (see members on page 34). Over the course of three days, participants engaged with several themes that explored how Australia's climate adaptation and resilience agenda can be made more robust, effective, and inclusive. The program was designed to incorporate a range of different types of knowledge and expertise across communities and sectors. The aim of the summit was to create clear pathways to developing adaptive actions across government, business, and on the ground.



Day 1 of the summit focused on the importance and opportunities associated with centring non-Western worldviews, knowledge, and practices for adaptation. Bruce Pascoe, author of *Dark Emu* and *Yuin*, Bunurong, and Tasmanian man, opened the summit with a keynote extolling the efficacy of cooperation as the basis of adaptation and sustainability. The following sessions explored the diverse knowledge systems of Australia's First Peoples, knowledge systems across Oceania, and how these knowledge systems can drive transformative adaptation.

Day 2 of the summit explored the key aspects of putting adaptation into action, through topics like community-led planning, cross-sectoral collaboration, and initiatives, and developing climate lenses for business and finance to use across their portfolios. In his keynote address, Dr Marcelo Mena, Chilean Minister for Environment 2014–18 and founder of the Coalition of Finance Ministers for Climate Action at the World Bank, said that “addressing climate change, building resilience, and promoting social equality is the growth story of the 21st century”.

Day 3 of the summit focused on transforming sectors and systems such as agriculture, coastal and marine systems, and cities and towns to prepare and adapt. Proper valuing of natural and social capital associated with healthy ecosystems and resilient communities in our governance and business planning is a major priority. Building the capacity of practitioners across sectors to work with uncertain and constantly changing conditions, which can be informed by quality research, is also a key step.

[Videos](#) for all sessions from the summit are available to watch on our website. [Read the summit program](#).

The summit was followed by the Empowering Future Leaders in Adaptation day, to build networks and capacity of early career researchers and practitioners in the field. Read more about the day in the early career section on pages 22.



Keynote speakers at the Reimagining Climate Adaptation Summit: Bruce Pascoe, Marcelo Mena Carrasco, and the Hon. Lily D'Ambrosio MP.

COMMUNITY SCIENCE FOR SUSTAINABILITY – OUR USA AND AUSTRALIA PARTNERSHIP

Future Earth Australia launched its Community Science for Sustainability initiative in 2020. This initiative convenes and manages partnerships between communities and researchers or specialists. For each project, communities and researchers work as equal partners to create research, guidance, or tools to progress the community's sustainability priority.

Future Earth Australia is well placed to lead a community science program by leveraging our extensive network of researchers and specialists working across disciplines and sustainability areas, as well as by employing our expertise in complex project management.

Two EOIs were accepted in 2020, from a highly competitive tranche of 10 applications from across the country. The Tallangatta Health Service in Victoria was matched with Professor Tim Cavaganaro and Dr Tanya Court from the University of Adelaide in

the development of a community garden after the 2019–20 bushfire season. The Warren Catchments Council in Western Australia was matched with Dr Kathleen Broderick (ANU-affiliated) to mentor a research student in community-led approaches to local fire management in the area as part of the local climate adaptation strategy.

Our Community Science for Sustainability initiative was prompted by Future Earth Australia's partnership with the Thriving Earth Exchange (a project of the American Geophysical Union), whose model has enabled over 100 successful projects. We are excited for our initiative to contribute to Australia's working legacy of community-based sustainability and management practice, while contributing expertise from the Australian experience back into the Thriving Earth Exchange model.

Future Earth Australia is currently working with Thriving Earth Exchange to plan next steps for developing the initiative and promoting it in the Asia-Pacific region, along with socialising the partnership and its results among the community of practice.



Cultivating connection in the wake of tragedy

In recent years, the tiny town of Tallangatta, Australia, has endured a severe drought, a global pandemic and some of the most destructive wildfires in memory. Now, the local health service is creating a community park and garden to offer a place of respite for the town's people and environment.

We spoke with Casey Fahey, who is spearheading the project with help from Thriving Earth partner [Future Earth Australia](#).

[Read the blog.](#)

Photo: The Tallangatta Community Garden working group at the project site.

The Tallangatta project is featured in the international newsletter for AGU's Thriving Earth Exchange.

TALLANGATTA COMMUNITY GARDEN

Following initial discussions about the project timeline and plan, Professor Cavagnaro engaged Dr Court to develop the park and garden.

The first step was designing the site's layout and functions. Dr Court and her students Lingfeng Huang, Shan Huang, and Wenxuan Zhang worked with Casey Fahey (community lead) and the community working group in Tallangatta to refine the design over four versions to arrive at a final plan. In working with the community, Dr Court's students were able to get real world experience in working with a rural community project. In July, the design was put into action with site works seeing soil excavation and other structural assets put in place. In August, soil sampling will take place with Professor Cavagnaro providing advice based on the soil data. This will inform the species chosen, their final placement, and other design aspects. Professor Cavagnaro has supported the project on an ongoing basis in an advisory capacity since matching.

COMMUNITY-ENGAGED FIRE MANAGEMENT IN SOUTHERN FORESTS REGION

Early 2021 saw members of the Warren Catchments Council, Dr Broderick, and Future Earth Australia develop materials and undertake outreach to recruit a research student to assist in the project. Environment and sustainability schools at Edith Cowan University, Murdoch University, and the Australian National University, along with professional networks, were engaged to promote the opportunity and this work is ongoing.

In the meantime, a number of engaged community members and practitioners involved in regional governance agencies have joined the working group to develop a 'community of practice' to share information relevant to the project.



Site plan for the Tallangatta community garden.



Community working group turns the first soil on the site.



CAPACITY BUILDING

– FUTURE SUSTAINABILITY LEADERS

EARLY-CAREER RESEARCHER AND PRACTITIONER PROGRAM

The Future Earth Australia Early-Career Researcher and Practitioner (ECRP) Program is a core pillar of Future Earth Australia's activity. It facilitates capacity-building and enables long-lasting relationships and opportunities for research and innovation collaboration among ECRPs associated with Future Earth Australia's member institutions. We define ECRPs as anyone who is either studying for their master degree or PhD, or those in their first seven years of research or practice, allowing for career disruptions.

In order to facilitate our desire to enable capacity building in the sustainability research and innovation field and to reduce barriers to entry, all Future Earth Australia ECRP events are free to attend for those applicants.

Anna Wintern (Monash University) continues as an ECRP representative on the Steering Committee. We welcome Jemma Purandare (Griffith University) who specialises in ocean sustainability as our newest ECRP member, with Chris Lewis (Geoscience Australia) having now rotated off. We would like to give our hearty thanks to Chris for his dedication and enthusiasm in his time representing ECRPs.



Dr Gayle Schueller of 3M Global spoke at the Empowering Future Leaders in Adaptation event.

EMPOWERING FUTURE LEADERS IN ADAPTATION

The Empowering Future Leaders in Adaptation early career day was held on 22 April 2021, supported by 3M. This day followed the three-day Reimagining Climate Adaptation Summit that convened a range of leaders to define important areas for progressing Australia's climate change adaptation governance agenda.

Thirty-five individuals from 10 institutions across both research and practice attended the day's activities. These began with a high-level keynote by Dr Gayle Schueller, Senior Vice President and Chief Sustainability Officer of 3M Global. Dr Schueller represented the perspective of a multinational corporation with extensive influence through its supply chain. Dr Schueller discussed 3M's sustainability approach based on the SDGs, through implementing circularity in its operations and moving to carbon neutrality by 2050. As someone with extensive corporate and research experience, Dr Schueller advised attendees to stay flexible and open to the opportunities given that they will likely work in areas that do not yet exist.

Participants came together in a workshop to develop the inputs for [an issues paper](#) on climate change adaptation capacity needs into the future. In small groups, attendees were asked to characterise the skills, knowledge, and capacity currently being demanded for climate adaptation, the areas we should prioritise for most effectively building Australia's adaptive capacity, and which institutions and sectors were seen as most apt for answering the capacity needs in particular areas.



A panel concluded the day, spurring discussion on barriers and opportunities for early career researchers and practitioners and their career progression. This included Zoe Whitton (Pollination Group), Dr Mark Stafford Smith (CSIRO), and Joanne Ludbrook (Peron Naturaliste Partnership). This was a casual and candid talk, with a number of attendees mentioning they had not had the opportunity during the pandemic to discuss their questions and concerns in such a free-flowing and interactive manner.

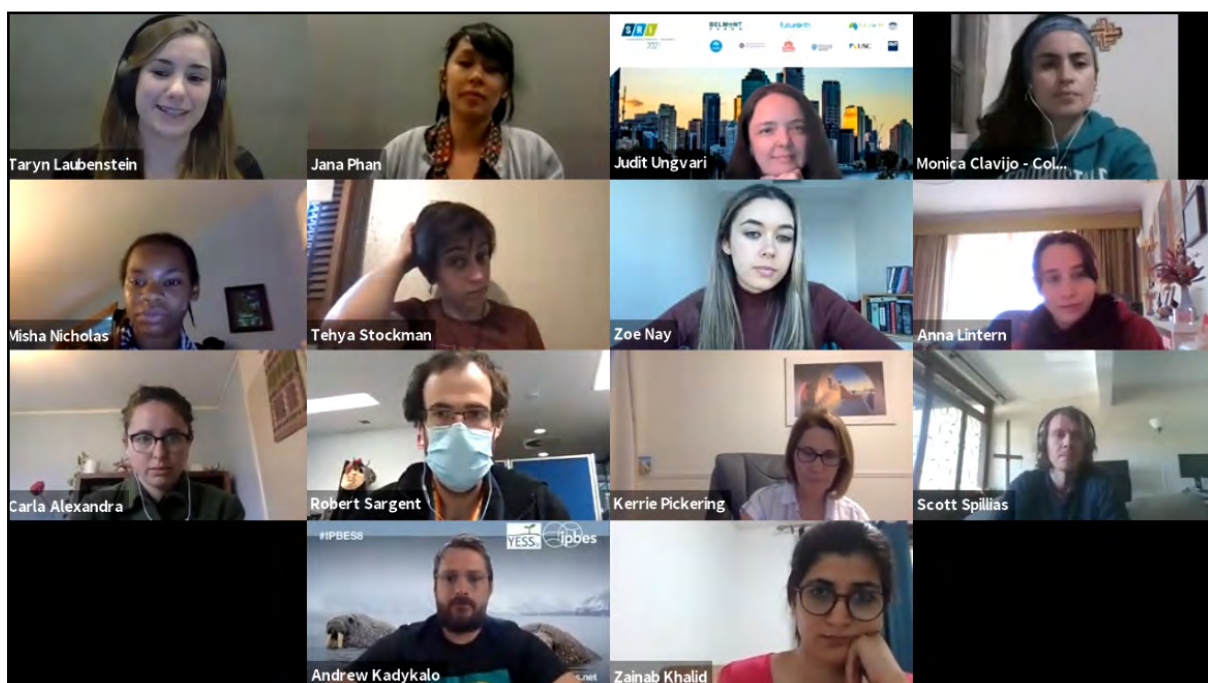
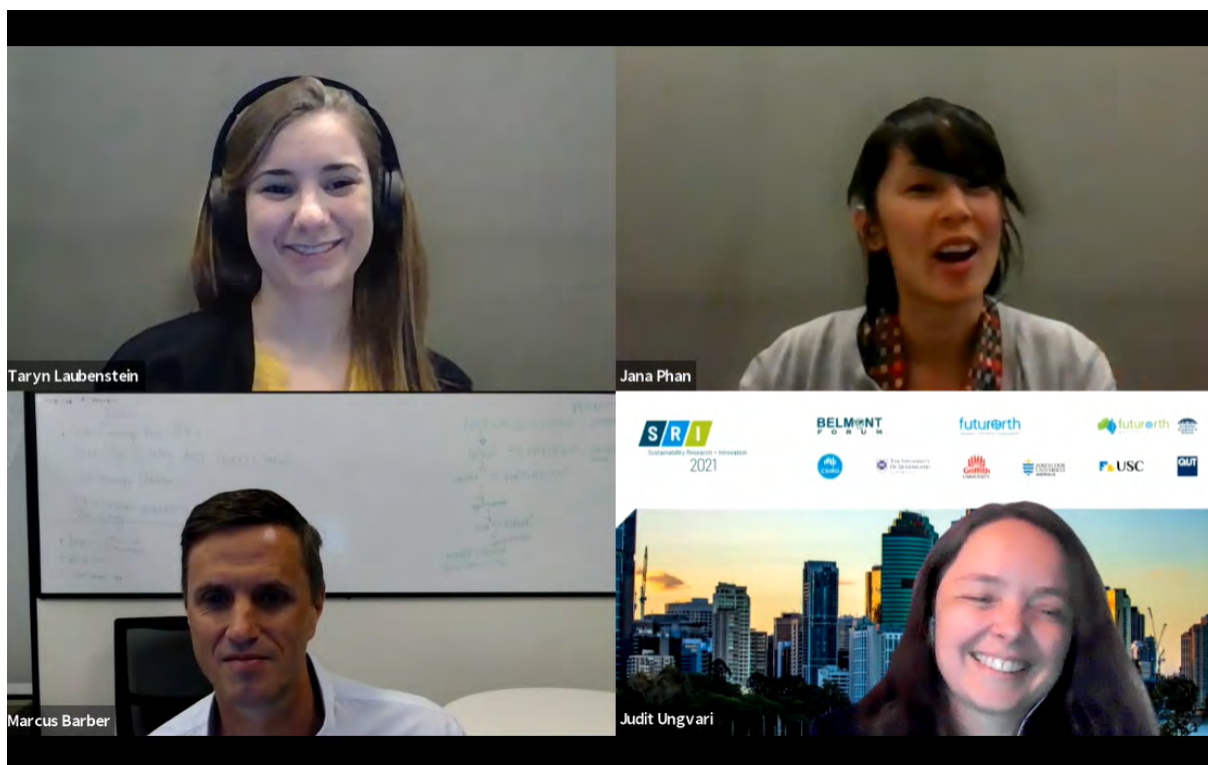
POLICY IMPACT IN SUSTAINABILITY

Early career attendees of the SRI2021 congress were welcomed to our 2-hour session on policy impact in sustainability. The session was fully booked months prior, and again after extending the number of places to 80. Participants hailed from across the world, with some saying that it was the first opportunity they had ever had to engage in professional capacity building. Around half of the participants requested membership in our ECRP LinkedIn group.

Attendees first had the opportunity to hear from specialists working across different policy arenas and in diverse sectors. Dr Marcus Barber, an environmental anthropologist at CSIRO who specialises in facilitating research and policy partnerships with Indigenous organisations and peoples, emphasised the importance of pursuing training in a couple of strengths and understanding what you contribute that others don't. He also outlined that supporting policy impact means we have to be open to stepping into supporting roles that

do not always directly involve policy development. Dr Jana Phan, specialist in plant genetics and Director of Stewardship and Sustainability Policy at CropLife, mentioned that education institutions do not always make opportunities to link science and policy, so individuals must be willing and aware to develop contacts and linkages themselves. Dr Judit Ungvari, a biologist now working in research innovation at George Mason University and Future Earth US Hub, spoke on the importance of taking on leadership roles and believing in one's abilities and perspectives even though one may be an early career researcher. The panel was followed by a workshop on how early career capacity can be built in international events for policy impact.

Participants spent their second hour in broader discussion about their experience and perceived opportunities in sustainability policy impact. Those who had the opportunity to attend international policy forums and conferences believe them to be highly useful for learning how negotiation of agreements unfurl, but noted that it can be difficult to get access where registrations for early career observers are limited. Short-term fellowships are also seen as useful training grounds but people pointed to the need for obligatory requirements to be designed to consider the circumstances and costs, which can be prohibitive. An example was requiring short-term fellows to move to a different city, creating considerable disruption and difficulty for those with caring requirements. Other participants suggested that policy impact skills development as part of postgraduate programs could focus on skills like science communication and policy development as opposed to purely academic skills training. One participant also noted that access to skills development can be scarce in global south countries and that merit-based access cannot always be assumed. This pointed to the value of enabling skills development at events like SRI2021 where some had their first opportunity to attend an early career event.



Panelists and some of the participants at the Policy Impact for Sustainability session at SRI2021.



IAN MCDUGALL BURSARY PROGRAM

In 2019, Future Earth Australia launched the Ian McDougall Bursary Program, made possible due to a philanthropic donation by the family of Professor Ian McDougall FAA.

This program aims to promote cross-institutional collaboration in ECRPs and seeks to integrate the SDGs for societal transformation. In its first year of operation, we allocated two grants, to Dr Cobi Calyx from the University of New South Wales and Scott Spillias from the University of Queensland.

In 2020, Cobi and her team used the funding to enable two early career researchers to travel to the Australian Science Communicators conference

at the Monash Sustainable Development Institute, for a session about science impact. Specifically, it highlighted the voices of Aboriginal Australian and Indonesian collaborators, articulating social impacts not only from their research, but through sharing lived experiences and exchanging knowledge with impacted communities. In 2021, and following her participation in the conference, Dr Summer Finlay led a paper in the *Journal of Science Communication* entitled 'From the margins to the mainstream: Deconstructing science communication as a white, Western paradigm.'²

Future Earth Australia would like to thank the family of Professor McDougall for making this important work possible.

2. Finlay, S.M., Raman, S., Rasekoala, E., Mignan, V., Dawson, E., Neeley, L. and Orthia, L.A., 2021. From the margins to the mainstream: deconstructing science communication as a white, Western paradigm. *Journal of Science Communication*, 20(1).

WHO WE ARE

FUTURE EARTH AUSTRALIA SECRETARIAT



DIRECTOR

Dr Tayanah O'Donnell

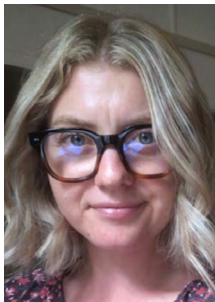
Tayanah is an experienced science leader, communicator and collaborator, having worked in research and leadership roles in private practice, government and academia for over 15 years. She has particular scientific expertise in legal, political and cultural aspects of climate change adaptation, coastal governance and management, and sustainability science and action.



RESEARCH AND POLICY OFFICER

Dr Taryn Laubenstein

Taryn is an experienced scientist and science communicator. Taryn is passionate about incorporating transdisciplinary and cross-sectoral knowledge sharing into Australia's ocean and coastal systems. She completed her PhD in marine biology at the ARC Center of Excellence for Coral Reef Studies at James Cook University, Australia.



RESEARCH AND POLICY OFFICER

Eleanor Robson

Eleanor is an experienced facilitator and analyst with particular interest and expertise in citizen and stakeholder engagement in environmental governance, and in enabling collaboration across sectors and at scale for a range of sustainability initiatives and outcomes. She has worked in academia, political advocacy, politics and outcomes-focused consultancies. She is a council member of the American Geophysical Union.



STEERING COMMITTEE

Joanne Chong	CSIRO
Professor Juan Francisco Salazar Sutil	Western Sydney University
Dr John Finnigan FAA	Australian Academy of Science
Professor Jago Dodson	RMIT University
Professor Brett Bryan	Deakin University
Professor Gabriele Bammer	Australian National University
Professor David Schlosberg	University of Sydney
Dr Belinda Wade	University of Queensland
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Professor Tony Capon	Monash University
Professor Anja Scheffers	Southern Cross University
Dr Anna Lintern	Monash University
Chris Lewis	Geoscience Australia
Jemma Purandare	Griffith University

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Howard Bamsey	Green Climate Fund
Simon Corbell	Former ACT Minister for Environment and Climate Change
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Virginia Haussegger AM	50/50 by 2030 Foundation Institute for Governance and Policy Analysis
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Dermot O'Gorman	World Wildlife Fund
Professor Will Steffen	Australian National University
Angharad Wyne-Jones	Arts Centre Melbourne

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FUNDERS





COLLABORATORS

Future Earth Australia thanks the following people for making our 2021 program a success.

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Professor Martin Nakata	James Cook University
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Dr Belinda Wade	University of Queensland
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* denotes that these individuals spoke in a personal capacity.



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EARLY-CAREER RESEARCHERS AND PRACTITIONERS PROGRAM

Policy Impact for Sustainability

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Dr Judit Ungvari	Belmont Forum; Future Earth
Dr Jana Phan	CropLife Australia

Empowering Future Leaders in Adaptation

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Professor Kate Auty	Environmental Protection Authority Victoria
Ketan Joshi*	
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Hillary Montague	Australian Youth Climate Coalition
Dr Sophie Webber	University of Sydney
Dep. Mayor Declan Clausen	City of Newcastle

* denotes that these individuals spoke in a personal capacity.

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