

Newsletter

July 2023

Cairns
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Welcome!

The Cairns Institute supports JCU's strategic intent to create a brighter future for life in the tropics world-wide through graduates and discoveries that make a difference. www.jcu.edu.au/about/strategic-intent.

The Cairns Institute's location in tropical north Queensland and proximity to neighbouring countries in the Pacific and South East Asia offers unique opportunities to enhance human life in the tropics and contribute to a brighter, more equitable and enriching future for its peoples. The Institute is committed to understanding and informing critical processes of social and environmental transformation in the tropics.

As the world's tropical zones face immense social, economic and environmental challenges, the Institute aims to provide innovative research with local, national and global applications. The Institute's core business of research, training and dialogue is embedded in commitments of excellence, social justice and engagement with the societies in which we work. Our unique profile is built on the following key concerns:

- Creativity and innovation
- Cultural and linguistical transformations
- Indigenous futures
- Social and environmental justice
- Sustainable development

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Rob Collins and Prof Sean Ulm



The First Inventors features JCU partnership research

The First Inventors is a ground-breaking 4-part documentary series exploring Indigenous knowledges and technologies across the Australian continent and extending for more than 65,000 years. The series follows story lines across the Country and across the skies. It explores how people transformed the continent through management and story. It covers navigation, aeronautics, kinship, memory, trade, communication and much more.

The First Inventors is presented by Tiwi Islander and Logie award winner Rob Collins, with an exciting team of Indigenous investigators including Karlie Noon, Chris Wilson, Ben Abbatangelo and Tui Raven.

The series is grounded in Country and speaks to how Director Larissa Behrendt so eloquently described as Indigenous knowledges guiding the creation of new knowledges. The series is also a celebration of how Indigenous knowledges come together with Western science in authentic research partnerships, revealing new knowledge and shaping what we know and how it can inform better futures.

The Australian Research Council Centre of Excellence for Australian Biodiversity and Heritage (CABAH) was the principal research partner for the series. Over the last 4 years they've been working closely with communities, directors, producers, production companies and



Dr Ariana Lambrides & Michael Kneppers

networks to bring the series to our screens. JCU research, researchers and members of The Cairns Institute are featured across the series.

In Episode 3, partnership research between JCU and Dingaal Traditional Owners on Jiigurru (Lizard Island) is featured across several segments, including an archaeological excavation led by Ariana Lambrides (*pictured above*) investigating ancient pottery and the use of reef resources and stone arrangements representing Dingaal totems being investigated by Joshua Connelly as part of his PhD research. Mike Kneppers (*pictured above*) is analysing the shellfish from the excavation as part of his PhD. Sean's work as part of a team using supercomputers to model the 'superhighways' that ancestors used to travel the continent is also featured.

At this time where Australia is engaging in defining national conversations about voice, truth, and treaty, The First Inventors presents Indigenous-led robustly-researched content that celebrates the complexity, deep knowledges and sophistication of First Nations societies across the country.

If you missed The First Inventors, all episodes are now available for streaming on TenPlay and SBS on Demand.

Sean Ulm, Ariana Lambrides, Joshua Connelly and Mike Kneppers





Aliyah Ravat



New TCI Research Services Manager

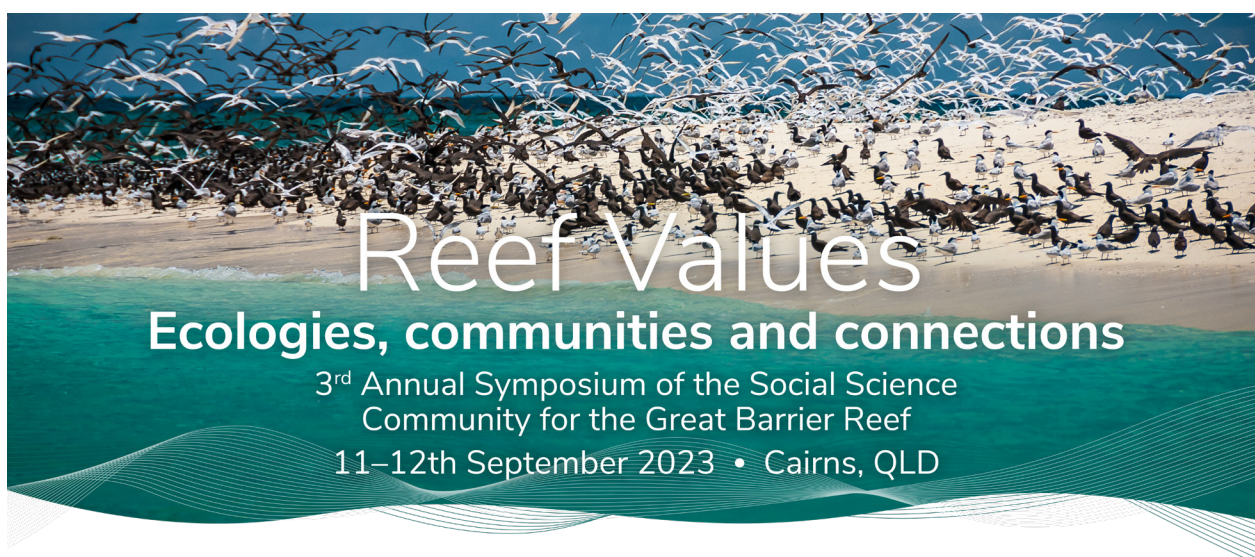
Her recent accomplishments include successfully managing a cross-institutional research project funded by a Department of Defence Strategic Policy Grant. Working alongside researchers from Griffith University, Australian National University, and The United States Studies Centre at The University of Sydney, Aliyah ensured the project's success and delivered outstanding outcomes.

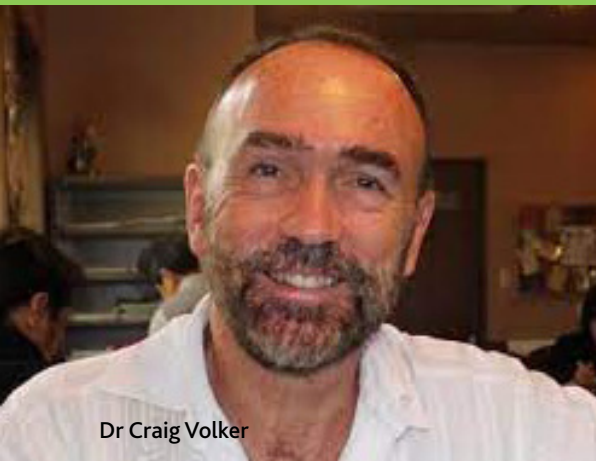
Aliyah's strong background in communications and engagement within the tertiary sector comes from her prior roles as an International Marketing Officer and Events Officer at Griffith University. Her academic qualifications in Business (Marketing) and Psychology, along with formal post-graduate training at QUT (Queensland University of Technology) in project management, further enhance her capabilities.

Passionate about building meaningful relationships and engaging with diverse communities, Aliyah is deeply interested in cultures, history, traditions, social change, and human agency.

As Research Services Manager, Aliyah's primary focus at The Cairns Institute is to identify and pursue strategic business development opportunities while ensuring long-term research objectives are met. She aims to foster strong working relationships with stakeholders to expand partnership and consultancy prospects. Additionally, Aliyah is adept at handling research contract-related matters and providing solutions when needed.

For further information, email aliyah.ravat@jcu.edu.au





Dr Craig Volker



Dictionary & Coffee Tuesdays in New Ireland, PNG

For the past year, Cairns Institute Adjunct Professor Craig Volker has been hosting “Nalik Dictionary Coffee Nights” every Tuesday at his home in Madina Village, New Ireland, Papua New Guinea. This is part of his work to compile the first dictionary of Nalik, an indigenous language spoken by between 4000 – 5000 people, but which is increasingly not passed on to children.

The nights are open to anyone from the community. Attendance fluctuates from two to twelve people, depending on the weather and conflicting community and clan events. The most regular attendees are elder clan leaders and matriarchs, but some younger people also attend. For the younger people, the sessions offer an opportunity to learn words that they would no longer hear in daily conversation, as elders reminisce about practices or events they remember from the past or talk about specialised vocabulary used in ceremonies.

The evenings started last year when Volker was asking people about vocabulary to include in the dictionary and several people suggested getting together as a group to verify words that they used or that they half remembered their grandparents using in the past. In the first evening, participants quickly learned that rather than teaching Volker words for him to include in the dictionary, the evenings provide an opportunity for people to learn from each other, not only about words, but about the traditional knowledge associated with the words.

The evenings usually start with questions by Volker about a particular topic, such as “How do you say X in Nalik?”, “When you do X, how do you describe it to someone in Nalik?”, or “What’s the name of this bird in Nalik?”.

The participants then take up the topic and start to tell stories about it or argue about the correct pronunciation of a word. Volker says that he is often hard pressed to keep up with the new words in the conversation and sometimes has to call for time out to catch up. He says that as anyone who is familiar with New Ireland culture would expect, the evening quickly turns to laughter and jokes, which provide a rich source for even more words for the dictionary.

A draft version of the dictionary, which includes the many questions that still exist for some words, appears on the Cairns Institute Language Archive website. It is updated regularly. A final print version of the dictionary will be developed from this draft once elders agree that enough words have been collected and Volker has been able to analyse the grammatical and semantic characteristics of all the words. Volker estimates this may take another five years.

For further information, contact craig.volker@jcu.edu.au





Dr Greg Burnett



Educational development assistance in the Republic of Nauru

The Cairns Institute Research Fellow Dr Greg Burnett from JCU's College of Arts, Society and Education, has recently returned from Nauru in the Central Pacific, where he spent twelve months as an Education Advisor to the Nauru Government. The advisory role, supported by the Australian Department of Foreign Affairs and Trade's (DFAT) Australia-Pacific Partnerships Platform, was to begin implementation of the Nauru Education Programme (NEP), a 10-year, \$40 million development aid project, funded by Australia.

The NEP's four end of project outcomes are: to improve school enrolment and attendance, particularly in the early years; improve learning outcomes for all children, particularly in terms of literacy; new and improved secondary to post-secondary school learning pathways; and strengthened and more inclusive education system delivery generally.

Nauru has had a long-running, sometimes fraught, relationship with Australia beginning as a UN Trust Territory administered by Australia after World War Two, through to being a source of cheap phosphate for Australia's agriculture sector over several decades, to more recently as an offshore processing and detention centre for those arriving by boat in Australian waters seeking asylum.

Over this time Australia has also been the main source of educational expertise flowing into Nauru, either via employment of Australian teachers in the early years through to current more formalised development aid arrangements, such as the NEP. Development assistance to Nauru must be understood in terms of Australia's foreign policy concerning the Pacific - in regard to Australia's own border protection and the rising assertiveness of China in the Pacific region.



Image: A working lunch around the lazy susan with Nauru Department of Education staff, from left to right: Josephine Dame, Fay Itaia, Chavannah Dowobabo, Lovita Detabene, Joel Joram, Kutan Ribauw, Greg Burnett, Bob Agio, Priscilla Seymour, Rosario Taumea and Osanna Jeremiah.



Educational development assistance in the Republic of Nauru continued



Images: (top inset) Students from Nauru College, the junior secondary school (Years 6 to 8) at a morning assembly. Above are Sacred Heart College Primary school staff, from left to right, Melania Matai, Eigoda Aiyunge, Laisa Ratunaisa and Prospina Stephen, workshopping new approaches to teaching literacy. Credit: G. Burnett



Image: (above) are Elvira Hubert (left), Inclusive Education Manager with Elmina Quadina (middle) and Queenie Teabuge (right), from the Able/Disable Centre, working on Individualised Education Plans (IEPs) for students. Credit: G. Burnett.

Initiatives led by Greg and Nauruan colleagues over the twelve months include, among others: changes to early years literacy teaching, with a greater focus on phonemic awareness; the establishment of an Inclusive Education Advisory Group, consisting of the Ministries of Education and Health to better support learners with a disability; and moves toward more culturally aligned Pacific approaches to schooling. The latter has emerged from key Pacific regional policy from the Pacific Islands Forum (PIFS) and the Pacific Community (SPC).

Despite ongoing Australian influence, Nauru education is beginning to align itself with instrumentalities such as PIFS 2050 Strategy for the Blue Pacific Continent, the Pacific Regional Education Framework (PacREF) and the work of SPC's Educational Quality and Assessment Programme (EQAP), all of which encourage Pacific nations to first look to island neighbours to meet development challenges. For those in Nauru education this is a new direction for positive change. For more information, please contact greg.burnett@jcu.edu.au



Dr Henry Bartelet



Collaboration Networks Help Asian-Pacific Reef Tourism Operators Adapt to Climate Change

The rapid pace of climate change over the last century has affected ecosystems and people across the globe. Coral reefs are one of the most heavily impacted ecosystems.

Many industries, like fisheries and tourism, rely on coral reefs; but little is known about how reef-dependent industries are adapting to climate change and whether they have the capacity to continue to respond effectively.

A recent study led by Henry Bartelet from Cairns Institute, James Cook University, addressed these questions by surveying 231 reef tourism operators in the Asia-Pacific (APAC) region, which is home to nearly 80 percent of the world's coral reefs, to understand their responses to climate impacts and the role of adaptive capacity in helping them adapt. The findings provide valuable insights and recommendations that both tourism operators and the public can use to foster resilience to climate change.

Understanding Operator Responses:

The study investigated how APAC reef tourism operators responded to climate disturbances like coral bleaching and cyclones, which are becoming more severe due to increasing ocean temperatures. Through surveys, researchers identified three clusters of responses: coping (doing nothing or looking for relief), adaptive (minor adjustments that can potentially buffer the impacts of climate disturbances), and transformative responses (actions that could affect long-term social-ecological outcomes in the context of change). For example, relocating to new, less degraded reef sites and changing operational

procedures were adaptive, while reef restoration and climate action were seen as transformative.

Social Organization Enables Transformative Action:

Adaptive capacity here describes the potential for a tourist operator to respond successfully to challenges raised by climate change. It was measured using 15 indicators, divided over six domains (agency, assets, flexibility, learning, social organization, and socio-cognitive constructs). The study tested whether the specific details of a reef operator's adaptive capacity had a meaningful effect on the type of responses the company prioritized in response to a climate disturbance. An important finding was the significance of the adaptive capacity domain of 'social organization' in driving transformative action. It showcased that strengthening collaboration among tourism operators, research institutions, and government agencies is instrumental in implementing valuable measures to address climate change. By working together, sharing knowledge, and making collective decisions, stakeholders are better equipped to create long-term sustainability and resilience in the face of climate disturbances.

Barriers To Transformative Action:

Operators that were more confident in their company's ability to adapt to climate change were less likely to prioritize transformative action. This finding was unexpected because most prior research has shown that people's self-efficacy is an essential determinant of their overall ability to respond to climate change. In this case, adaptation confidence might be associated with an operator's perception of the (future) severity of climate change.

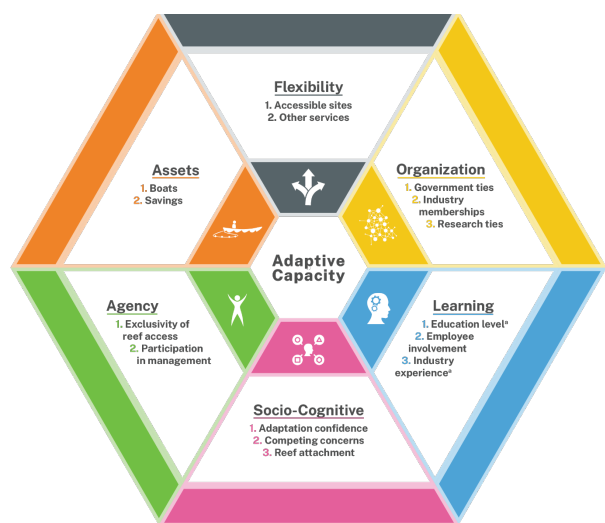


Collaboration Networks Help Asian-Pacific Reef Tourism Operators Adapt to Climate Change. cont'd

Operators that are less worried about climate change may be less inclined to prioritize transformative actions such as coral restoration and reducing carbon emissions. Surprisingly, operators in countries with lower government effectiveness, like Indonesia, were more likely to prioritize transformative action than operators in countries with higher government effectiveness, like Australia. We did not find support for the so-called 'adaptation deficit' hypothesis, which argues that people in less-affluent countries have a lower capacity to adapt to climate change. Instead, people in countries with less government support might rely more on self-organization to address common challenges, while people in more-affluent countries might expect their governments to take the lead in transformative action.

Re-evaluating Adaptive Capacity:

The study also indicated that an operator's adaptive capacity may not be a reliable indicator for prioritizing adaptive responses (minor adjustments to buffer impacts). Instead, the severity of climate impacts on operators emerged as the primary driver that led operators to prioritize adaptive measures such as the spatial diversification of their reef sites. This finding indicates that the prioritization of adaptive measures in response to severe climate impacts might be necessary for all operators, even those with relatively low levels of adaptive capacity. However, whether the different types of implemented adaptive actions 'successfully' reduced climate vulnerability, the potential to be adversely affected by climate change, is a question for future research.



Implications for Tourism Operators and Beyond:

To address climate change challenges, our research suggests that policymakers and reef tourism operators should proactively improve collaboration efforts and networks. Strengthening partnerships between industry associations, research institutions, and (local) government agencies can enhance adaptive and transformative capacity. These collaborations can help to make accessing valuable knowledge and resources, aligning agendas, and supporting effective climate adaptation possible and financially feasible.

For further information, email henry.bartelet@jcu.edu.au

Figure 1 (above) Indicators of Adaptive Capacity, based on prior conceptualization of Adaptive Capacity along six interrelated domains. a Education level and industry experience are associated with the manager of the reef tourism operator.

Credit: H. Bartelet

Image (top inset): Reef tourism in the Okinawa Islands, Japan. Photo shows tourists enjoying the coral reefs around Cape Maeda, one of the many reef tourism locations included in our study. The Ryukyu Islands (including Okinawa) were one of the many locations in the Asia-Pacific Region that were affected by a mass coral bleaching event in 2016. Credit: H. Bartelet.



Emily Harrington



TNQ Drought Hub Scholarships

The hub recently offered scholarship opportunities to JCU students who were interested in undertaking an Honours or Masters project that would contribute to drought resilience and the current and future agricultural needs of Tropical North Queensland.

Congratulations to the TNQ Drought Hub drought resilience scholarship recipients. Eight students were awarded up to \$5,000 each for one year to conduct regionally focused drought resilience projects that will build academic knowledge in the agricultural sector. These went to:

Elora Baird: Systematic interrogation of groundwater sampling techniques, equipment, and analytics to constrain their impact on water metrics and refine best practice sampling for North Queensland

Declan Cargill: Optimising Drone Surveying for High Resolution Digital Terrain Mapping in Gullied Savanna Rangeland.

Sarah Cassells: The influence of social identity on water conversation behaviour in Australia during periods of drought: A pilot study.

Damon Colman: The effects of beef stocking strategies on ant community composition and seed removal in northern Australia: a study from the Wambiana experiment.

Alex Dodge: Quantifying Small-Scale Rainfall-Runoff Processes on Gullied Savanna Rangelands of Northern Queensland.

Lucy Gardner: Rapid Assessment of Mitchell Grass Tussock Density on Southern Gulf Rangelands Using High Resolution Drone Imagery and Machine Learning.

Fredrick Holden: Carbon dioxide removal and sugarcane yield improvement through enhanced weathering of basalt in acidic soil.

Jacob Valley: Bush food enterprises and business opportunities for Indigenous community development.

These projects were required to align with the TNQ Drought Hub's priorities that encompass drought and climate change adaptation, land management, innovation and technology, enhancing skills and human capacity, and Aboriginal and Torres Strait agricultural enterprise.

These priorities help guide the key challenges and opportunities for agricultural businesses, their towns and communities and regions within Tropical North Queensland to build drought resilience and preparedness.



To follow our student's journey, click [here](#) or [subscribe to our newsletter](#)



Linde Draaisma



Decolonizing HDR Network

On 1 August, The Cairns Institute hosted a small, informal symposium for HDR students working with Aboriginal and Torres Strait Islander peoples in Far North Queensland. It brought together Indigenous and non-Indigenous students from various universities and colleges, including Oxford University, the Australian National University, JCU College of Medicine and Dentistry and The Cairns Institute.

The theme of the symposium was The (Im)possibility of Decolonial HDR Projects. The participants each presented their research in broad terms and shared how they navigate the sometimes conflicting timelines, practices and ethics that come

with decolonization in academic contexts. Helpful literature, inspiring experiences and words of encouragement were shared.

The group will continue into the future as an informal and supportive network for HDR students grappling with practical as well as moral questions around academic research with Indigenous peoples. Due to the success of the first symposium, a second session will be organized, most likely in October 2023. All HDRs who are interested in these topics can join the Decolonizing HDR Network.

For further information, contact linde.draaisma@jcu.edu.au



Image (above): Ellie Bock, Kate Bellchambers, Rebecca Beutel, Sara Mohamed, Linde Draaisma, Danielle Nembhard and Rachel Quigley. Credit: V. Wong



Dr Kearnin Sims



JCU RED's Public Lectures

The Cairns Institute Fellow Dr Kearnin Sims coordinates the JCU Research Ethical Development Symposium, now in its second year. It will be held 27-29 September at The Cairns Institute.

This year will feature three notable keynotes; Associate Professor Susan Engel, Ng Shui Meng and Sekai Holland. These keynote addresses will be made available to the public.

Associate Professor Susan Engel is Co-Director, Future of Rights Centre, and Associate Professor, Politics and International Studies, University of Wollongong. Her research is on the impact of neoliberalism on the theory and practices of development and development finance. The title of her paper is 'Australia and the Third World Project'. This public lecture will be streamed on 27 September at 10.00 am [here](#).

Shui-Meng Ng holds a MA in Sociology from the University of Michigan in 1973, and a PhD in Sociology from the University of Hawaii in 1979. Over the span of more than 40 years, Shui-Meng Ng accumulated a broad range of experience working in different countries and in different fields. From the Institute of Southeast

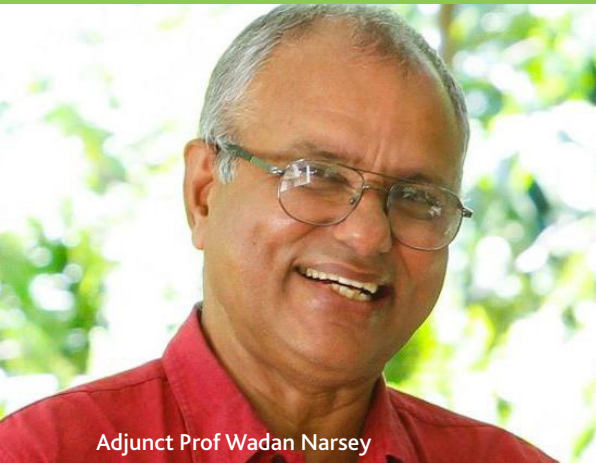
Asia Studies, to UNICEF in Lao then later in Timor-Leste. In 2012, her husband, Sombath Somphone, a respected and well-known development leader, was disappeared in Vientiane. The title of her paper is 'The Education of the Heart is the Heart of Education: Path to compassionate social transformation'. This public lecture will be streamed on 28 September at 4.30pm [here](#).

Dr Sekai Holland is a member of the Zimbabwean government and formerly Zimbabwean Co-Minister of State for National Healing, Reconciliation, and Integration. She has dedicated her life to campaigning for human rights, democracy, and the empowerment of woman. Her courageous spirit was recognised in 2012 with the Sydney Peace Prize, Australia's only international prize for peace. Sekai was a founder of Australia's Anti-Apartheid Movement in the late 1960s and also helped to establish the Murrawina Child Care Centre in Redfern and was active within the Aboriginal community during the land rights movement. The title of her paper is 'Zimbabwe Peacebuilding Initiative' and it will be streamed on 29 September at 4.30pm [here](#).

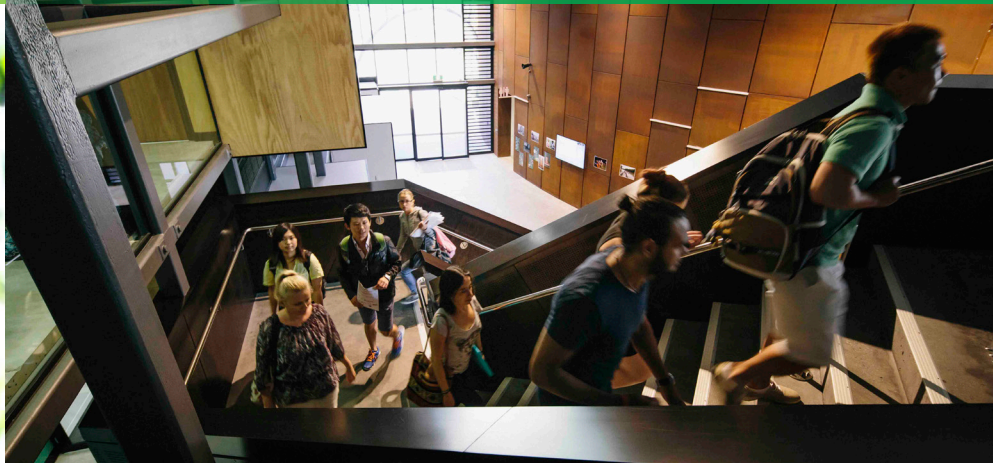
For further information, contact kearrin.sims@jcu.edu.au



Images above feature Susan Engel (left), Shui-Meng Ng (centre) and Sekai Holland (right).



Adjunct Prof Wadan Narsey



Economic Empowerment of Fiji Women and Girls

A ground-breaking Report ("Beyond 33%: The Economic Empowerment of Fiji Women and Girls") by Adjunct Professor Wadan Narsey was launched in March by the Australian High Commissioner to Fiji Mr John Williams for the Fiji Women's Rights Movement (FWRM).

The Report is solidly based on official data sources such as the Fiji Bureau of Statistics, Fiji Revenue and Customs Services and Fiji National Provident Fund. The Report documents that women and girls in Fiji are 34% of the Paid Labour Force, they do 73% of Unpaid Work and 54% of all work by hours, paid and unpaid. While Females are 34% of the Paid Labour Force, they receive

only 30% of Total Incomes because of a large gender gap of -14% in average incomes. Females own only 35% of Total Superannuation funds in Fiji. The Report documents how women and girls have fewer hours to devote to leisure activities.

The Report shows that some progress is being made, but far too slowly. The Report gives a wide range of Recommendations for Women and Girls to close the gaps in paid work, in unpaid household work and in leisure activities like sports. The Report was supported by the Australian Government through the 'We Rise Coalition'. The full Report may be downloaded [here](#).



Image (above) l-r: Nalini Singh (Director FWRM), Kiran Nath (Assistant Minister for Women), His Excellency John Williams (Australian High Commissioner to Fiji) and friends of Fiji Women's Rights Movement (FWRM). Credit: Wadan Narsey



Hon. Penelope Wensley AC



The National Soils Advocate visit

The TNQ Drought Hub recently hosted the National Soils Advocate, the Honourable Penelope Wensley AC for a whirlwind two-day field trip visiting numerous soils restoration and rehabilitation sites to learn about the soils health work of JCU, NQ Dry Tropics, JCU's partner Terrestrial Ecosystem Research Network (TERN) and Queensland Department of Agriculture and Fisheries (DAF).

Ms Wensley visited an alluvial gully remediation project at DAF's Spyglass Research Station that has several undergraduate and post-graduate JCU students working on it to gain first-hand experience collecting and translating data into knowledge for improved land management. Several of these students were able to talk directly to and spend time with Ms Wensley where she highlighted the value of the students work within soil health.

The group also visited JCU's Fletcherview Research Station where the TERN SuperSite project is measuring the exchange of water,

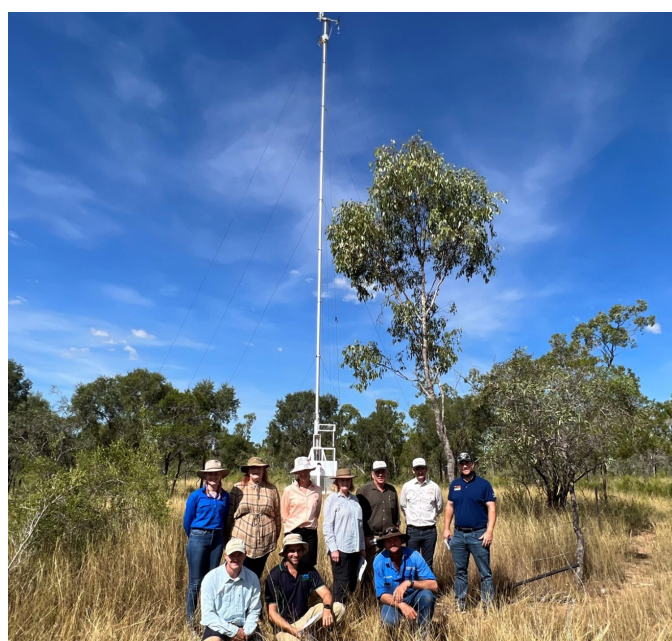


Image: The group in front of the TERN SuperSite project at Fletcherview Research Station. Image supplied

carbon and energy between the atmosphere and the Earth's surface with environmental monitoring sensors. TERN sites aim to provide model ready data that enable researchers to detect and interpret changes in land ecosystems.

Ms Wensley then travelled onto McKinlay, to launch JCU and Southern Gulf NRM's Resilient Soils and Landscapes Project which is focussed on restoring consistent bare ground and rehabilitating Mitchell Grass downs soils and the surrounding landscapes over many seasons through a range of restoration techniques determined by the unique factors of each site.

To learn more about the hub, [subscribe to our newsletter](#) or find us on [Twitter](#), [LinkedIn](#) and [Facebook](#).



Image: The Honourable Penelope Wensley AC, Jack Koci and Bob Shepherd at the Spyglass Research Station alluvial gully remediation project site.



Dr. Mohammad Farjoo



Sandpit to Seed

The TNQ Drought Hub is excited to be working with James Cook University researchers to help them move their research ideas that could improve agricultural adaption, sustainability and resilience towards Proof of Concept, Prototype or Minimum Viable Product (MVP) development.

Sandpit to Seed funding aims to support projects, technologies and developments that will have a genuine impact on building resilience within Tropical North Queensland.

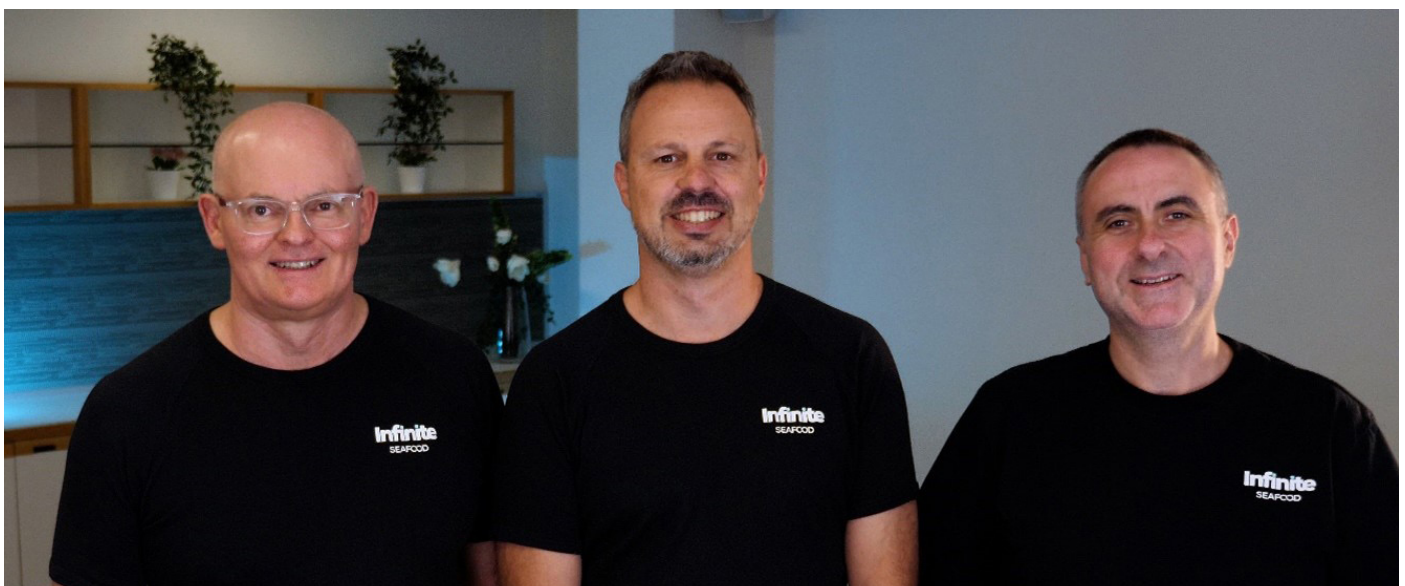
So far in partnership, they have provided over \$200,000 of funding to the following research projects including:

1. Clean Meat: Accelerating clean fish-meat production at scale in the lab
2. Bug Radar: A radar capable of detecting pests and small birds approaching a farm
3. AutoFish: An automatic fish phenotyping tool for sustainable aquaculture and smart fisheries

Associate Professor Lionel Hebbard says "The Sandpit to Seed fund has been critical for our team to further develop our business model. It has enabled the team to acquire important infrastructure and to conduct crucial experimental work to improve the Technology Level Readiness of our potential products. Through Sandpit to Seed support, we have been able to identify potential collaboration partners and customers. This will hold us in good stead to be successful in commercial funding from traditional grant funding and/or start-up investment funding".

For more information on Sandpit to Seed funding opportunities contact the hub's Commercialisation Manager, Dr Mohammad Farjoo on mohammad.farjoo@jcu.edu.au

Image: (below)l-r: A/Prof Lionel Hebbard, Luke Deacon and Dr Craig McFarlane. Credit: E. Harrington





Prof. Allan Dale



DNA Conference 2023

The Developing Northern Australia Conference returned to Darwin this year in 2023. In 2021, the conference converted to an online event an hour before the program was due to begin due to a sudden NT COVID-19 lockdown. Participants echoed how great it was to return to Darwin and connect in person.

Professor Allan Dale, who leads the Development in the Tropics Team (DiTT), was the Conference Chair for the 9th year. This year's major theme for the conference was Leading the Way: Empowering Northern Australian Business and Industry for Growth and Innovation. With the recently announced refresh of the northern Australia White Paper, this year's conference presented a renewed opportunity to examine progress and craft new directions and refinements.

The Conference attracted 596 registrations and featured some 46 speakers. Professor Hurriyet Babacan of DiTT and Chair of RDA Tropical North, was a keynote speaker in the first session of the Conference and Jaime Gane from Weipa Town Authority gave a presentation of the Western Cape Futures Symposium; a major TNQ Drought Hub partner.



Image: Allan Dale chairs a ministerial panel Credit: J. McHugh and DNA Conference.



Allan Dale, Hurriyet Babacan (pictured above) and Jen Mchugh chaired a sessions related to Enabling Northern Australia Infrastructure and Jim Turnour, also with the DiTT group, chaired a session on Population, Jobs and Skills.

Ministerial and keynote speakers in the conference included:

- Minister Madeleine King: Minister for Northern Australia (Pre-Recorded Virtual Presentation)
- Minister Glenn Butcher: Queensland Minister for Regional Development, Manufacturing and Water
- Minister Nicole Manison: Deputy Chief Minister of the NT Government
- H.E. Dr Siswo Pramono: Ambassador of Indonesia to Australia
- Julianne Lambourne: Queensland Indigenous Business network
- Michele Deshong: Interim CEO, Supply Nation
- Joanna Howes: Ministerial Advisory Council on Skilled Migration
- David Connelly: General Manager of Tipperary
- Tennant Read: Principle National Advisor of Public Policy at AI Group
- Amanda Cahill: CEO the Next Economy



DNA Conference 2023

Part of the conference is the final of Croc Pitch. It is open to global, national or local participants who have created an innovation that provides a direct economic benefit back into Northern Australia. Participants are allowed to pitch for up to \$1 million in venture capital.

Participants can be a growing business or entrepreneur that has a scalable innovation, product or technology. After the rigorous application process, only selected innovators were given an opportunity to pitch at the DNA conference. The winners of the \$1 million investment in 2023 was Agricultural Robotics, which in partnership with Central Queensland University, has been working on the world's first robot to pick mangoes. The technology has been developed and trialled over several months and it is anticipated that it will help reduce resolve workforce shortages.

This year's DNA was very successful and again helped to put a spotlight on the future of Northern Australia. Next year the Conference will be held in Karratha. <https://northaust.org.au/>
For further information, contact Jen.mchugh1@jcu.edu.au



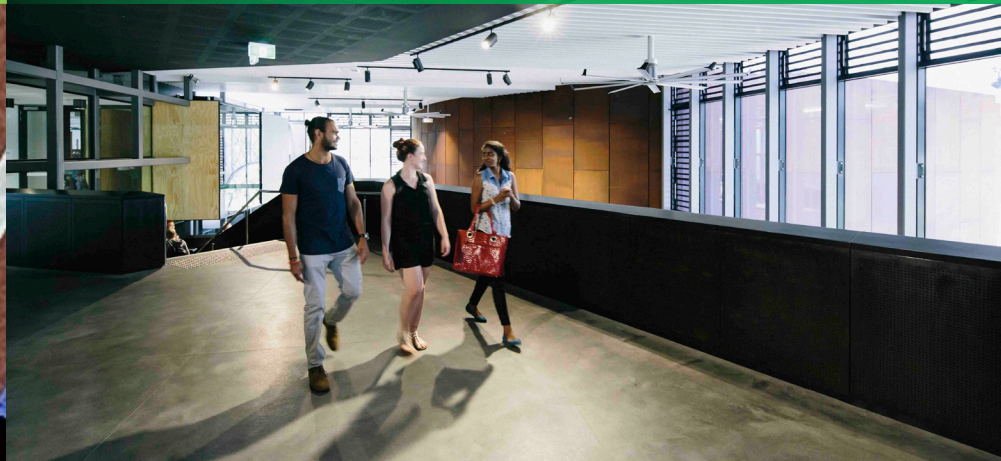
Images: Dr Ana Carla Leite De Almeida (above left) and Emeritus Professor Ian Wronski (above right). DNA Conference 2023 session (below).



Images: Croc Pitch Judging Panel (top inset), Dr Alice Cairns (above) and Dr Amanda White representing Agricultural Robotics as the Croc Pitch Winner 2023.



Sara Mohamed



PhD Intro: Sara Mohamed

Sara is an Egyptian-Canadian PhD candidate who has found her way back to James Cook University. After completing a Bachelor of Arts Degree majoring in Sociology and minoring in Business, Sara came to Australia in 2018 to undertake a Master's project at JCU Townsville under the supervision of Dr. Theresa Petray. Finding JCU to have been a great experience and learning environment she wanted to continue her studies and is now with The Cairns Institute.

Although the Australian climate is vastly different than Canada's, having transition from -40 to +40, Sara has taken to the Cairns heat amicably. She is excited to be back and looks forward to exploring more of Australia in the future. Presently she is in the early stages of developing her PhD research within Environmental Sociology supervised by Distinguished Professor Stewart Lockie, Dr. Theresa Petray, and Dr. Nick Osbaldiston.

Having grown-up in Canada's beautiful and diverse landscape, an appreciation for nature developed into a strong desire to conserve and protect those nature resources. As she continued along her studies in Sociology, she discovered a way in which her multiple interests coincided. Sara is taking her PhD as an opportunity to further explore the intersections between race, identity, and environmental behaviours.

Her research interests also include self-presentation, social media, social movements, inequality, capitalism, and environmental responsibility. Sara primarily utilizes qualitative research methods working to engage, understand, and facilitate voice for individuals participating in research. She strives to focus on empowerment and service to underrepresented environmental perspectives in the goal of diversifying the narrative around sustainability which may work to support social and environmental justice and a more sustainable future.





Prof Allan Dale



Science to Practice Forum

TNQ Drought Hub's Professor Allan Dale, Doctor Jane Oorschot and Ms Kara Worth were invited to speak at the Science to Practice Forum and share their experience on innovative tools and practices that build peoples and communities capacity to prepare for future drought.

The event, organised by the Department of Agriculture, Fisheries and Forestry Future Drought Fund, brought hundreds of farmers, researchers, government, industry and communities together online for an interactive, educational and inspirational three days. The forum was facilitated by Pip Courtney.

Professor Dale spoke on the work his hub program Sustainable Aboriginal and Torres Strait Islander Enterprise (SATSIE) is doing to provide support for Traditional Owners to realise their rights and interests in land and water. These activities are focused on building the resilience to drought through real engagement by standing beside and behind indigenous people, business, organisation and communities.

Doctor Jane Oorschot presented the work she is doing to build human capacity and improve profitability through engagement and outreach within Tropical North Queensland. Jane has



Image : Pip Courtney and Jane Oorschot. Credit E.Harrington
delivered scholarship opportunities, produced educational videos and has partnered with organisations to pilot programs and events that are not normally run within the regions including governance, succession and school/industry tours.

Digital Agriculture Innovation Consultant Kara-Glenn Worth shared her work on understanding the right technology tool for the right job, where she has been developing an agtech readiness analysis that will empower producers to easily understand what agtech tools are available, if they are ready for them and where they are best applied.

The hub also showcased an innovative breath testing pregnancy tool for cattle that has been recently trialled at James Cook University's Fletcherview Research Station. The purpose of the trial was to ensure the technology would suit the challenges of North Queensland cattle and conditions.

To view Allan and Jane's presentations click [here](#), to view Kara's presentation click [here](#) and to watch the breath testing pregnancy tool video click [here](#).

To learn more about the hub, [subscribe to our newsletter](#) or find us on [Twitter](#), [LinkedIn](#) and [Facebook](#).



Image from Agscent Trial. Credit E.Harrington

What's happening in the Institute?

Details for these events can be found at: www.cairnsinstitute.jcu.edu.au/upcoming-events/

Event	Date & location
50 Treasures Revisited Cairns Historical Society and the Cairns Museum Dr Daniela Vavrova	24 June to 28 October Cairns
Terrestrial cultural landscapes changed inshore marine ecosystems: Eight centuries of shellfish harvesting from the Kawela Mound site, Hawaiian Islands CABAH/TARL Seminar Ashleigh Rogers	25 August Cairns
Coastal Adaptation and the Maritime Skills of Early Modern Humans in Island Southeast Asia from the Terminal Pleistocene to the Mid-Holocene: A Comparative Study CABAH/TARL Seminar Clara Boulanger	1 September Cairns
Dwarfs, Giants and KnifeTeeth: The Evolutionary History of Crocodyliforms in Australia CABAH/TARL Seminar Jorgo Rivstevski	8 September Cairns
Social Sciences For The Reef Symposium 2023 Social Science Community for the Reef Prof Stewart Lockie	11-12 September Cairns
Papua New Guinea's Cultural Exhibition and Films The Cairns Institute Prof Rosita Henry and JCU Wantribe PNG Students Association	14 September Cairns
The Pacific Matildas Research Project: Three Years On – How We Are Putting the Pacific Back on the Map CABAH/TARL Seminar Emilie Dotte-Sarout	15 September Cairns
Cowries and the Monsoon: An archaeology of Early Globalisation in the Maldives CABAH/TARL Seminar Dr Mirani Litster	22 September Cairns
RED Symposium 2023 JCU Research Ethical Development Dr Kearnin Sims	27-29 September Cairns
A/Prof Susan Engel Australia and the Third World Project JCU Research for Ethical Development group Dr Kearnin Sims	27 September Cairns
Shui Meng Ng The Education of the Heart is the Heart of Education: Path to compassionate social transformation JCU Research for Ethical Development group Dr Kearnin Sims	28 September Cairns
Dr Sekai Holland Towards Synergies for Peace with Justice, Safety, Security, Happiness & Prosperity JCU Research for Ethical Development group Dr Kearnin Sims	29 September Cairns
Ozboneprot: Building Reference Sequences to Develop Australian Ancient Bone Proteomics CABAH/TARL Seminar Sofia Samper Carro	6 October Cairns
Living with cataclysmic events: Volcanic activity in Vanuatu with particular focus on Kuwae CABAH/TARL Seminar A/Prof Stuart Bedford et al	13 October
Everything, Everywhere, Everyday: The Undisciplining of Archaeology and Heritage CABAH/TARL Seminar Tracy Ireland	27 October