

2022 Sustainable Development Goal Update

Snapshot of Sustainability at
Southern Cross University



Throughout the year, Southern Cross University has continued to embed sustainability principles across its teaching, research and operational domains. Embracing a holistic approach, the University remains steadfast in its commitment to advancing the [United Nations Sustainable Development Goals](#) (SDGs). In pursuit of creating a more equitable, just and environmentally conscious society, the University has been actively engaging in various initiatives and projects to address these goals. One such initiative is the continued rollout of the [Southern Cross Model](#), which aims to deliver superior student outcomes through immersive six-week terms, thereby making quality education more accessible to all.

The University’s involvement in the recovery efforts following the [2022 Lismore flood events](#) serves as a poignant example of its commitment to address urgent community needs and foster resilience in the face of adversity. The University mobilised resources and expertise, playing an integral role in the region’s recovery and rehabilitation. The [Vice-Chancellor’s Flood Recovery Project Scheme](#) funded seven projects through a \$165k investment. These projects included digital data repositories and mapping, community education resources, GIS model evaluation and community mental health analysis.

Within this report, we will explore the key accomplishments, ongoing initiatives and challenges faced by the University as it navigates the complex landscape of sustainable development. Through collaborative partnerships, innovative strategies and a resolute dedication to societal progress, the University is committed to [transforming tomorrow](#).

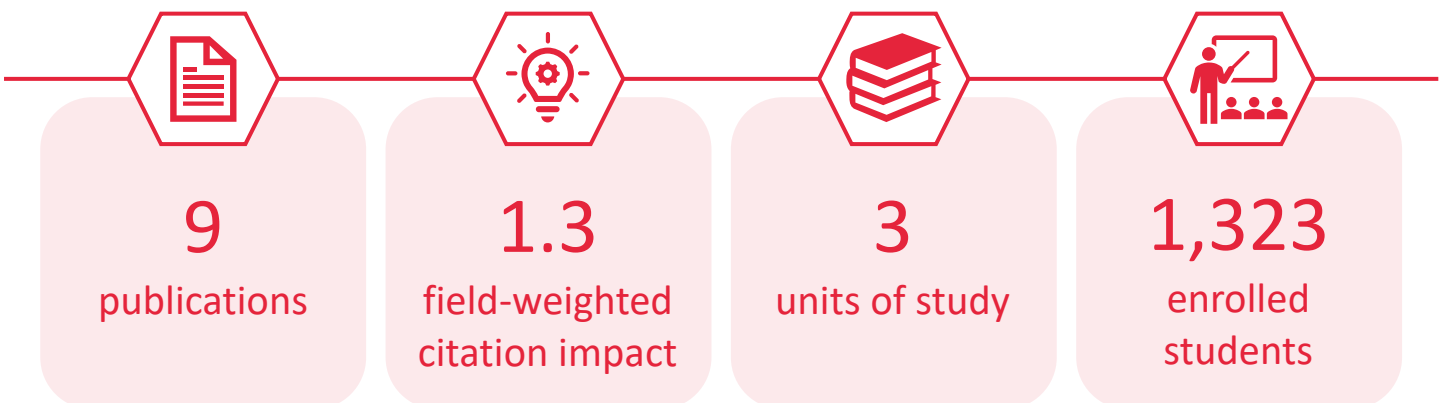




Gregory Peel Smith is a former director of [Anglicare North Coast](#) and currently a director for the [End Street Sleeping Collaboration](#), which evolved from a NSW Premier’s Priority to end street sleeping by 2030. He is also an ambassador for three homeless support service organisations: [Fred’s Place](#) (Tweed Heads), [Pete’s Place](#) (Coffs Harbour) and [Signal Flare](#) (South Brisbane). Gregory’s [own story](#) was immortalised in his memoir, [Out of the Forest](#), and featured in the ABC’s [Australian Story](#).

The University has also supported other charities through collaborations with staff. Robyn Keast worked as an advisor and critical friend at the [Gold Coast Youth Service](#), covering housing, homelessness integration and collaborative practice. Mandy Hughes has worked with [Anglicare North Coast](#) on a program supporting refugees locally through employment, education and equity.

The University is committed to making educational opportunities available to all, funding \$635k of equity and diversity scholarships that were awarded to 147 equivalent full-time students in 2022. The funds were disbursed through several schemes, including the [SCU Equity Scholarship](#), the [Indigenous Student Success Program](#), the [Lord’s Taverners Northern NSW Scholarship](#), the [Gilchrist Charitable Foundation Goori Stars Scholarship](#) and the [Northern Rivers Community Foundation SCU Bowen Education Fund Scholarship](#).

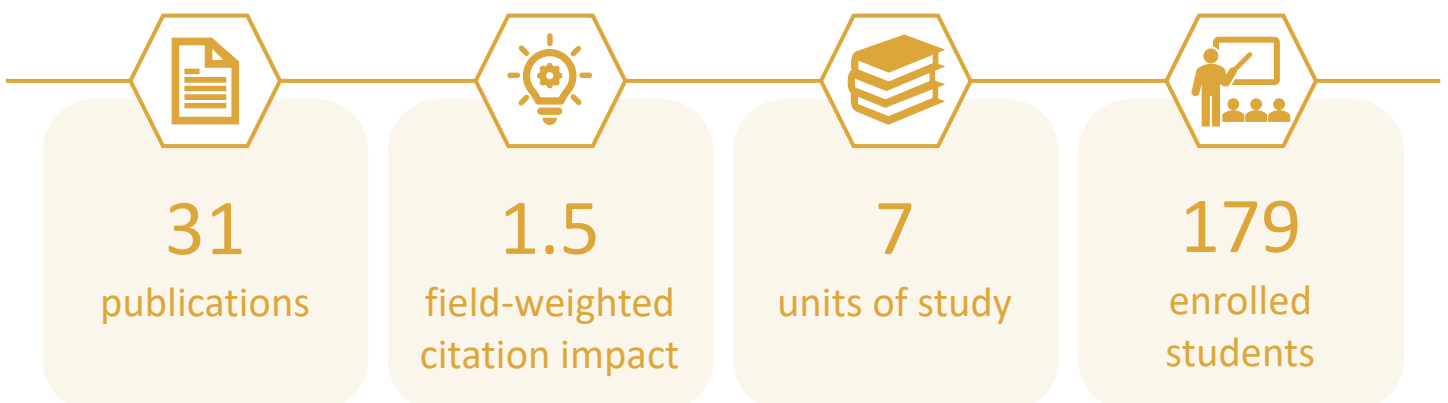




Beekeeping contributes to food security and nutrition by enhancing crop pollination, increasing agricultural yields and promoting biodiversity. We have partnered with Oxfam, CARE International, Surf Aid and other NGOs in Indonesia, Papua New Guinea and Fiji who have adopted our research informing best practices in beekeeping for development programs. We have also co-invested and implemented the first ever [Pacific Islands Beekeeping Congress](#), drawing 200 people across 15 Pacific nations.

Another important contributor to food security is phosphorus, which functions as an essential nutrient for plant growth, particularly in broadacre crop production such as wheat, canola and rice. Once the phosphorus is taken up by the plant from surrounding soil, it is transported to the grain or seed and eventually consumed, passing into sewage. Recycling bio solids, extracting phosphorus before landfill, breeding crops which minimise phosphorus transfer and assessing alternative fertiliser sources are all avenues of investigation within the [Cooperative Research Centre for High Performance Soils](#) to which SCU contributes.

Amid global demand for higher quality natural foods, an [SCU-led project](#) has been awarded \$530k over three years to help improve hempseed varieties for Australian requirements into the future. The project will characterise hemp germplasm for seed quality traits, including seed size and nutritional composition, and better understand the link between genetic makeup and visual or chemical traits.





3 GOOD HEALTH AND WELL-BEING



The University co-authored the inaugural [Recommendations for Culturally Safe Kidney Care for First Nations Australians](#). The new national guidelines were published in October 2022 and are the culmination of a four-year project which involved extensive community consultation. Compared with the general population, First Nations Australians are twice as likely to develop kidney disease and nearly four time more likely to die with kidney disease, with an absence of family and cultural considerations for Aboriginal people a barrier to achieving better patient outcomes.

The [Manna Institute](#) brings together leading researchers from seven universities in the [Regional Universities Network](#), along with industry and community partners to improve mental health and wellbeing in rural, regional and remote Australia. Funded by a \$3.7m Commonwealth grant, the Institute aims to foster relevant research, professional workforces and the translation of findings into practical, place-based programs.

As a member of the [Northern NSW Academic Health Alliance](#), established in 2022, the University secured the opportunity to deliver education, training and research services for the [Tweed Valley Hospital](#) through a consortium bid that includes Bond University, Griffith University and TAFE NSW. The NSW Government has invested \$723.3m in the establishment of the greenfield hospital with 430 beds and a range of expanded surgical, oncological, maternity and outpatient services.



97
publications



2.2
field-weighted
citation impact



58
units of study



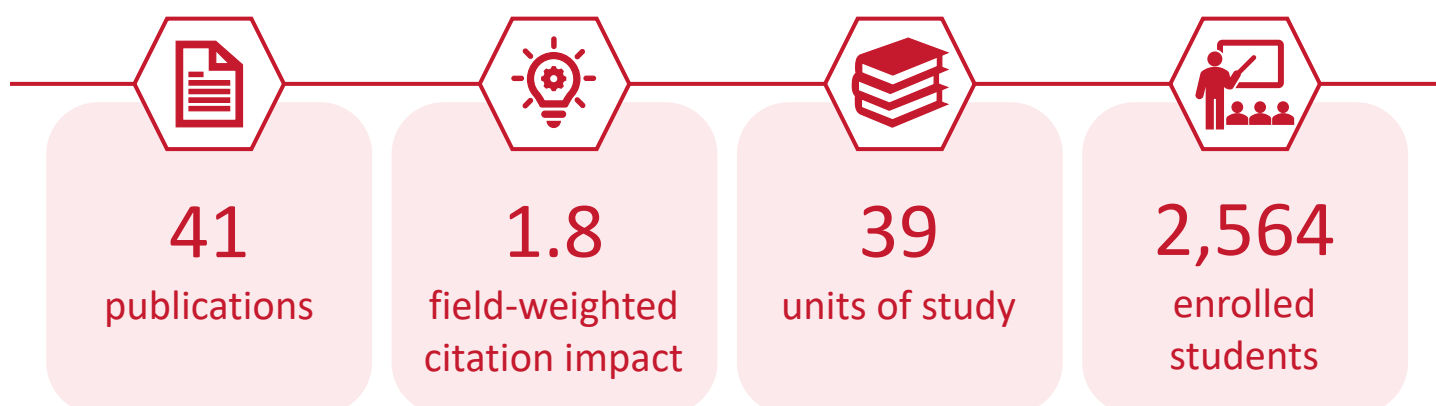
4,225
enrolled
students



In 2022, the University continued the staged rollout of its [Southern Cross Model](#), a major curriculum reform designed to provide students with a more focused, guided and active learning experience delivered through immersive 6-week teaching periods. The Model was introduced in response to sector-lagging student retention and success rates, but also to capitalise on the opportunity to reposition its practices, innovate in course delivery and renew focus on quality teaching and learning.

The University's [Centre for Children and Young People](#) published a [landmark study](#) that investigates which elements of school participation are most strongly associated with the wellbeing of children and young people. The key findings have since informed policy, programs and professional learning in NSW government and non-government schools. SCU researchers have also co-authored [impactful research](#) exploring the relationship between a sense of belonging at university, feelings of being valued, included and accepted, and motivation, academic self-confidence, academic engagement and achievement.

Through the [Sustainability, Environment and the Arts in Education \(SEAE\) Research Centre](#), University staff actively engage with schools, community, early childhood education and care settings, across a range of sustainability and environmental education programs. These programs are research-led and examples include [Climate Change and Me](#), [Nature Play](#), Learning with Land, YouthforSea and YouthforLandcare.





5 GENDER EQUALITY



The University is an ardent supporter of gender equality across its teaching, research and operations, receiving an [Athena SWAN Bronze Award](#) in 2020 and building on that milestone in successive years. Kirsten Benkendorff—a seafood sentinel marine scientist from Southern Cross University—has been selected as a 2023/2024 [Superstar of STEM](#), where she will act as a role model and promote the role of women in science through outreach activities with schools and the boarder community.

As part of [ongoing research](#) to improve the productivity, profitability and sustainability of the beekeeping industries in Papua New Guinea, SCU has been working with in-country partner organisations, including the Ministry of Agriculture Fiji and the Fiji Beekeepers Association, to improve opportunities for women in the Fijian beekeeping sector. Local trainers delivered 23 value-added bee product workshops, providing training to 208 trainees which included 150 women.

[The Australian Centre for International Agricultural Research bee project](#) has also worked closely with the Ministry of Agriculture to design and implement training on Fiji’s new Gender in Agriculture Policy. The workshop facilitated 28 managers and extension staff from around Fiji to come together in Suva to better understand, plan for and implement the policy in their work and activities.



17

publications



1.3

field-weighted citation impact



2

units of study



379

enrolled students



6 CLEAN WATER AND SANITATION



The University’s research agenda identifies deeper community engagement as a key to future practice in sustainable water management and ensuring human settlements are inclusive, safe, resilient and sustainable. By way of example, the University is [investigating nutrient cycling and wastewater treatment](#) pertaining to the future community and infrastructure needs of Sydney’s rapidly growing west, in partnership with Sydney Water.

Between 2001 and 2016, blueberry farming grew >400% in NSW with 90% of this growth centred around Coffs Harbour. SCU research identified significantly decreased water quality where more than 15% of land use in a given water catchment was under intensive horticulture. This work encouraged the development of the [Blueberry Code of Practice](#) by the industry’s peak bodies, emphasising a reduction of environmental impacts. A separate project [assessed the sedimentation and pollutants](#) entering Woolgoolga Lake and the potential for removal by leaf oysters, resulting in an intervention to install siltation barriers around a new sports field development.

The University partnered with Rous Water to deliver a [pilot recycled water supply scheme for the Parradenya Estate](#), providing funding and expertise needed to successfully deliver the scheme. Closer to home, the University works with Rous Water to achieve [improved water efficiency in its own operations](#), identifying over 17 megalitres of savings, which is the equivalent of almost seven Olympic swimming pools.



32
publications



1.5
field-weighted
citation impact



8
units of study



389
enrolled
students



7 AFFORDABLE AND CLEAN ENERGY



The [Electric Kombi program](#) has created curriculum materials to support STEM education with a specific focus on energy efficiency using the novel focus of the conversion of a 1970s Kombi to a fully functional electric vehicle. The lesson plans include a suite of purpose developed videos featuring speakers from industry and the University. There are also links to relevant educational resources including YouTube clips, interactive web applications, templates, background teacher information and more.

The University co-partnered to create the [Green Innovation Awards](#) to recognise learning and action for sustainability, in the form of an environmental competition for primary and high schools from the Gold Coast to Port Macquarie. Students are asked to demonstrate their innovative ideas at the nexus of STEM and sustainability, including ideas for the use of biofuels and renewable energy.

The University also partnered with youth social enterprise [Young Change Agents](#) to establish a pilot educational program [Planet A Schools](#), equipping students with entrepreneurial skills and knowledge to tackle climate change in their school environment. The four-stage program empowers young people to immerse themselves in environmental impact-related problems, including removing barriers to improved uptake of renewable energy in local communities.



9

publications



0.5

field-weighted citation impact



4

units of study



101

enrolled students



8 DECENT WORK AND ECONOMIC GROWTH



In 2020, the University was awarded the Athena SWAN Bronze Award from [Science in Australia Gender Equity \(SAGE\)](#), which recognises our commitment to gender equality, diversity and inclusion. The University is a proud ongoing participant in this accreditation program and has committed to the [10 principles of the Athena SWAN Charter](#).

Staff are given a training program during their onboarding process which, among other topics, provides education on the University’s [core values](#) at all levels of the organization. These values are mutually reinforcing and underpin our [commitment to diversity and inclusion in the workplace](#), encouraging applications from people of Aboriginal and Torres Strait Islander descent, women, people from culturally and linguistically diverse backgrounds, people with disabilities and people who identify as LGBTQI.

As part of its reporting obligations under the [Modern Slavery Act 2018](#), the University [prepared a statement](#) on the risks of modern slavery in its operation and supply chains, and actions taken to mitigate, lessen and remove risks where possible.

As part of its reporting obligations under the [Workplace Gender Equality Act 2012](#), the University also [reports information](#) about its pay by gender, workforce participation, women in leadership and actions to improve equality.



19
publications



1.0
field-weighted
citation impact



20
units of study



1,470
enrolled
students

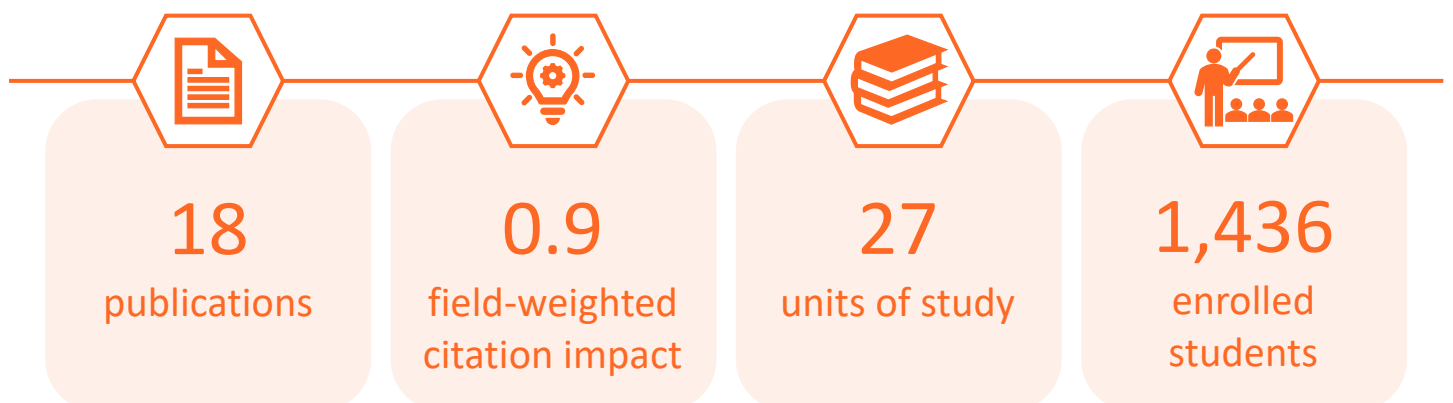


The University's [Live Ideas](#) program enables industry, community, researchers and educators to build entrepreneurial skills that can transform ideas to impact. Workshops, digital resources and professional development opportunities are provided to start-ups and established businesses. The [Impact Forum](#) attracted over 100 local businesses and community people, while the [Innovate Series](#) was also widely attended.

In response to the 2022 Lismore flood events, the University has also established a [Business Hub](#) in partnership with [Business NSW](#) to focus on sustainable recovery post disaster. The emphasis was on using the floods as a key reset moment to help business owners to reconsider the nature of their business in the context of regeneration, sustainability and resilience.

The [In Good Company](#) project was developed to keep business in the Northern Rivers region and attract new business to the region. In partnership with this project, the University has in the past been able to offer TechVouchers for R&D initiatives that have supported local businesses via funding from [Investment NSW](#).

The University's [Entrepreneurs Circle](#) provides a networking platform for practitioners, budding entrepreneurs, researchers, students and communities to understand the journey of an entrepreneur – from trials and tribulations through to triumph.

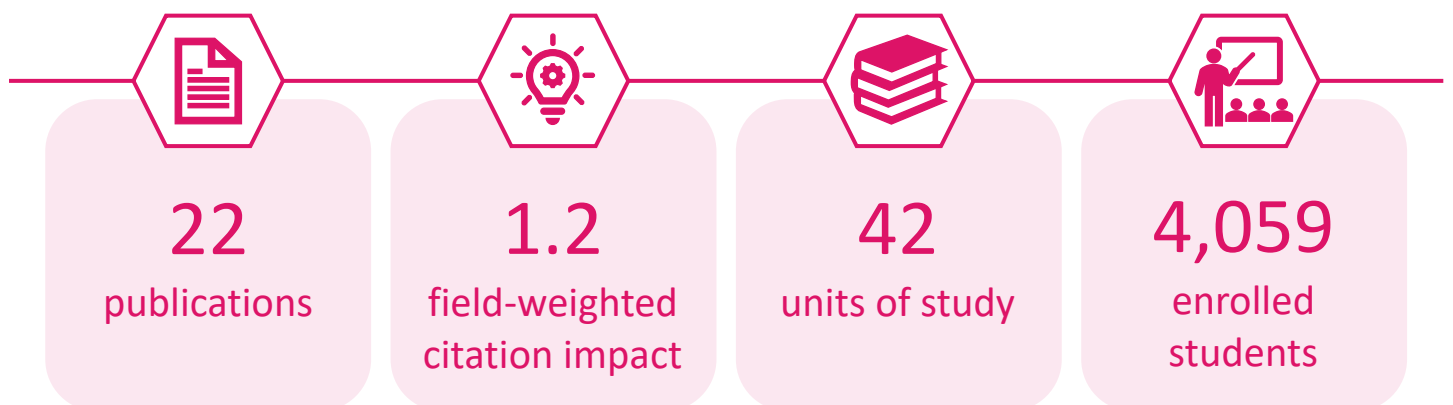




In 2022, the University awarded \$635k of equity and diversity scholarships to 147 equivalent full-time students across multiple schemes including: [SCU Equity Scholarship](#), [Indigenous Student Success Program](#), [Peter Gordon Jurd Memorial Scholarship](#), [Northern Rivers Community Foundation](#), [SCU Bowen Education Fund Scholarship](#), [Mayor of Lismore Scholarship](#), [Gilchrist Foundation Goori Stars Scholarship](#) and Lord’s Taverners [Indigenous Knowledge Honours Scholarship](#) and [Seawind Catamaran Indigenous Scholarship](#).

Additionally, 12.6% of our students commencing a degree in 2022 are first-generation students, meaning that they are the first in their families to attend a university. We provide pathways to study for students from underrepresented groups through [SCU College](#), and we [monitor their performance](#) to better serve the needs of these students. We have principled admissions to our courses based on [transparent academic standards](#).

Our research examines the significant integration challenges faced by Black Africans in Australia in comparison to other migrant groups. The University received \$450k under the Australian Research Council’s prestigious Discovery Early Career Researcher Award scheme to support a project investigating [racial dignity for African Australians](#). The project will apply a unique and innovative Afrocentric methodology to develop knowledge that will inform a tailored, culturally appropriate practice framework for human service organisations.





11 SUSTAINABLE CITIES AND COMMUNITIES



Throughout 2022, in response to the devastation of the twin Lismore flood events, the University [hosted a range of government agencies, community services and schools](#) on its Lismore campus. This included the region’s key Recovery Hub (which surpassed 10,000 client interactions) and a Business Hub supporting a substantial number of local enterprises to re-establish, and in some cases re-imagine themselves.

The University’s campuses remain a vibrant part of the towns in which they are located, hosting more than 15 arts performances each year through Graduation Ceremonies, Open Days and campus and off-campus events. These performances feature musicians, artists, digital media and visual arts programs. Community events include the [Lismore Lantern Parade](#), [Byron Writers Festival](#), [Kyogle Writers Festival](#), [Gold Coast Music Awards](#), [Northern Rivers Performing Arts](#) and even the global [Climate Change Conference in Egypt](#).

The University encourages students and staff to consider sustainable travel options where possible, in orientation programs and on the campus website. We also have an [electric vehicle charger](#) on the Lismore campus and incentivise carpooling for programs requiring transit between campuses. SCU has also partnered with local operators to provide sustainable transport alternatives, such as the [bus service](#) between the Lismore campus and the local TAFE, hospital and central business district under bus route 684.



30
publications



1.0
field-weighted
citation impact



12
units of study



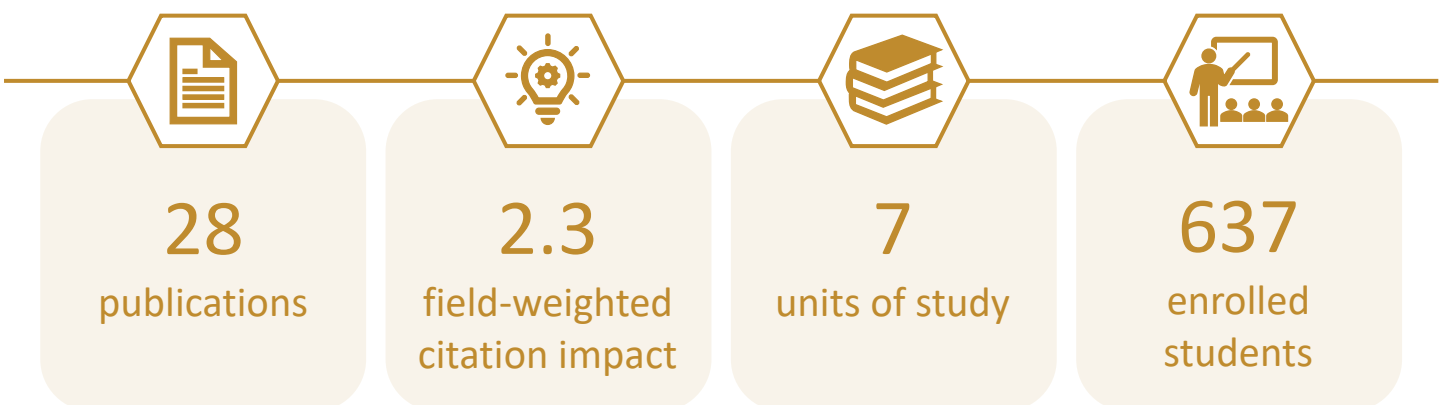
772
enrolled
students



The University has prioritised becoming a zero-waste institution and effectively translating into practice our existing research strengths in the circular economy. We have established the [ZeroWaste research impact cluster](#), which addresses the barriers associated with integrating wastes into the circular economy, where waste products from one process are turned into resources for another. Through the [ReCirculator program](#), a \$2m Federal Government-funded initiative, we are facilitating the development, prototyping, adoption and scaling up of circular business models, creating new economic opportunities in the Northern Rivers region of NSW.

In 2022, the University was awarded a [Sustainable Partnership Grant](#) through the Environmental Protection Authority to develop an educational program for businesses and schools. This program was designed to raise awareness and knowledge of the implementation of circular economy principles to support a reduction in plastics.

There are also efforts underway to minimise use of plastics on campus. CHEC Café uses sustainable takeaway items in lieu of plastics to reduce its footprint. The menu has been designed so that the same items can be reused in different ways. Separately, the University has curated a [selection of merchandise options](#) that ensure the materials used in production, the manufacturing environment and the item lifecycle are sustainably aligned.





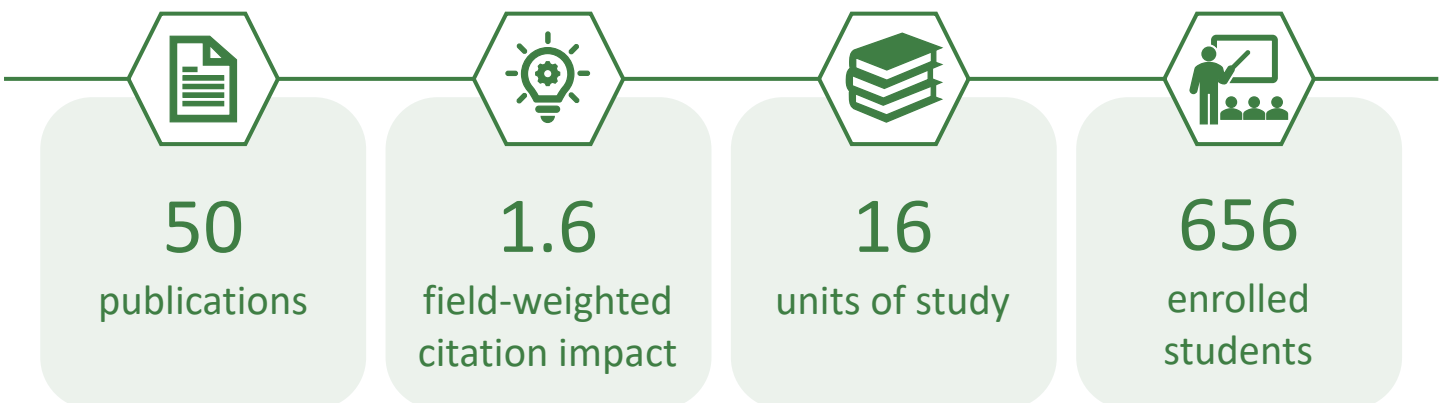
13 CLIMATE ACTION



We are working with industry partners to [assess carbon intensity in supply chains](#) to help reduce the emissions embedded in products and to meet net zero objectives. This includes establishing sustainability credentials for emerging industries such as hemp food and fibre processing that have the potential to displace conventional, carbon-intensive products. We are also exploring ways organisations can [report natural capital in their financial statements](#), to institutionalise investment in nature and grow carbon sequestration opportunities.

The [Northern Rivers Net Zero](#) project is an industry-led collaboration to make the Northern Rivers region in NSW one of the first carbon net zero regions in Australia. Current work includes baselining the agriculture sector and running a strong engagement program for primary producers. Mirroring these efforts within our own operations, the [University has committed](#) to net zero emissions from Scope 1 and 2 sources by 2035, and to source 100% of energy from renewable sources.

The University remains steadfast in its community outreach, releasing a short film, [The Patterns of the Past – The Promise of Tomorrow](#), which featured at the 2022 United Nations COP27 Climate Change Conference in Egypt. The film showcases changes to wetlands, river systems and salt lakes across Australia and Africa through time-lapsed satellite images.

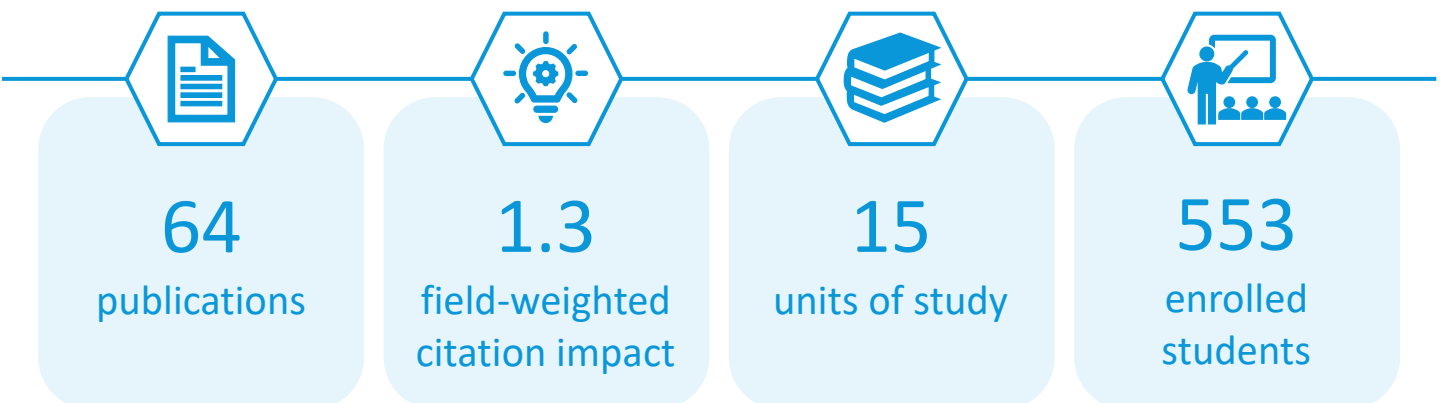




In 2022, the University launched four [research impact clusters](#) to strategically align its major interdisciplinary research strengths, two of which concentrate on Life Below Water. [Catchments, Coasts and Communities](#) focuses on freshwater and estuarine environments which host a diversity of marine life—including important fisheries species—and are the primary pathway by which anthropogenic pollution enters the marine environment. The [Reefs and Oceans](#) research cluster is focused on creating a sustainable future for our oceans with major themes including the protection and restoration of coral reefs and other valuable marine ecosystems, sustainably managing fisheries, and understanding and communicating the impacts of climate change on the world’s reefs and oceans.

Southern Cross University is a founding partner in the [Reef Restoration and Adaptation Program](#) unincorporated joint venture, the world’s largest R&D program to assist coral reefs to survive climate change. The University leads the [Cooling and Shading](#) and [Moving Corals](#) subprograms and contributes directly to other major subprograms. We lead the research and development of three of the intervention technologies being developed to mitigate damage from mass bleaching events and assist coral reef recovery following disturbance.

Scientists have estimated that [Coral IVF](#), for example, boosts coral survival rates up to 100 times the baseline. We have partnered with tourism operators in the Whitsunday Islands to [collect more than 80 million coral embryos](#) to grow coral larvae in rearing pools.



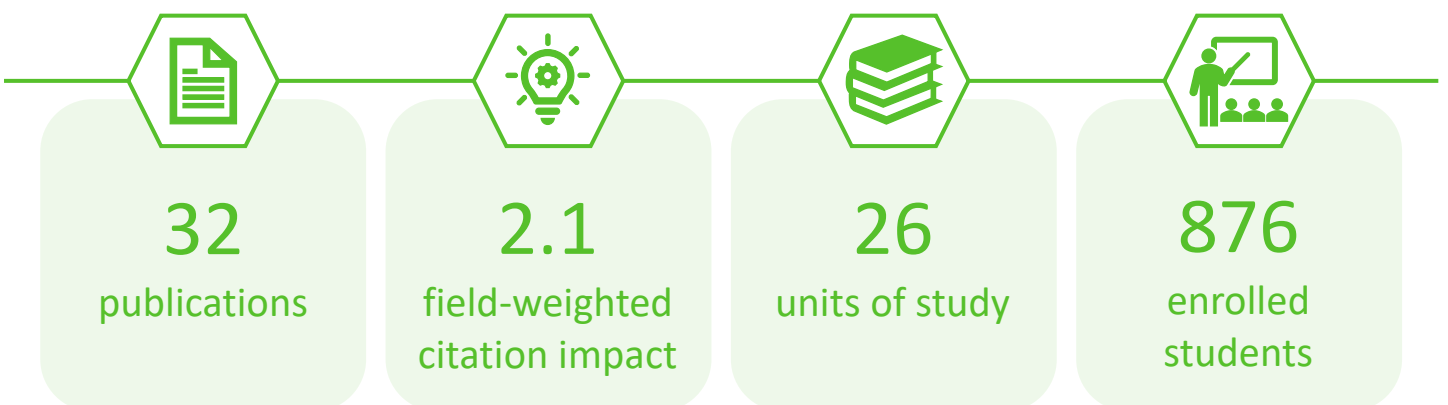


Through the [Farming Together](#) initiative, the University supports improved soil quality, farm productivity, food quality, biodiversity, training and climate change mitigation. These outcomes are achieved by sharing tools and resources, webinars, guest lecture presentations, videos, podcasts, articles and more with Australian farming communities.

The initiative includes the [Regenerative Agriculture Mentoring Program](#), which places farmers into groups with expert mentors to help them transition from conventional to regenerative farming principles and practices. With the NSW Government Environmental Trust as our key partner, we have seen significant successes with on-farm practice change and knowledge sharing.

The University has also partnered with the [Southern Queensland Northern NSW Drought Innovation Hub](#), with the Lismore node based on campus. Our goal is to apply and extend research on the ground to improve innovation and adoption across agriculture, industry and the community, in relation to building resilience to climate extremes.

Beyond our shores, the University has established a national honey bee pest surveillance program in Fiji, including the development of standard operating procedures and the training of 40+ government biosecurity and Ministry of Agriculture field staff.

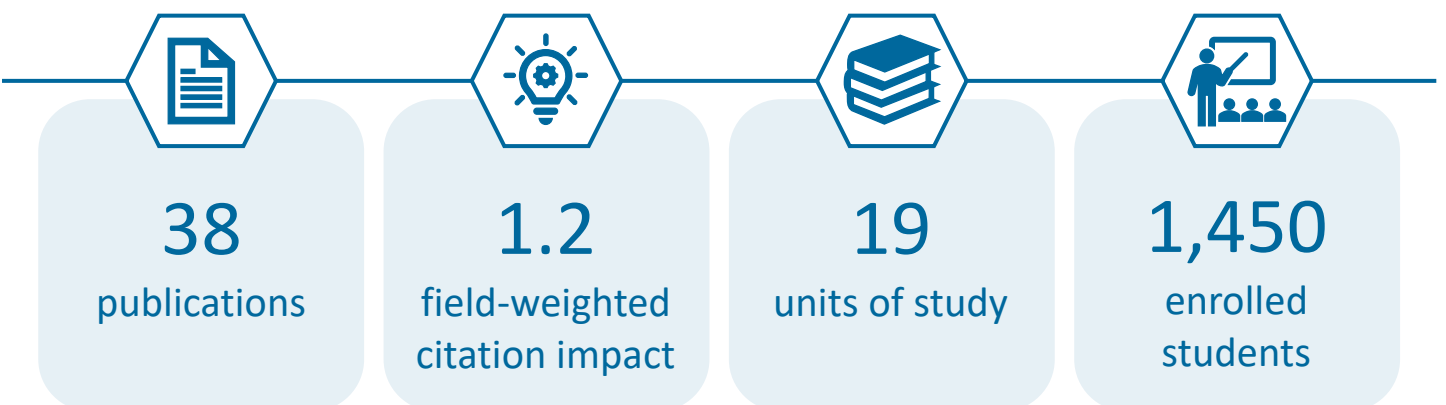




The University provides input to policy- and lawmakers on relevant topics at local, regional, national and international levels. One prominent example is that of the University’s [Submission to the Privacy Act Review Report](#), which recommended that the focus on children and young people’s right to privacy does not negatively impact other child rights and the ability to access critical services, particular when those services are provided online. One way this could be achieved is through legislation that maximises the ability of a child or young person to be involved in decision-making around their personal information.

The University also made a submission to the Parliamentary Joint Committee’s Inquiry into Corporate Insolvency in November 2022. The submission and evidence was cited 55 times in the [Final Report](#), which concluded that, to address the shortcomings of the corporate insolvency system, there is a need for an independent and comprehensive review that addresses the system as a whole.

Within the University’s operations, the [Gnibi Elders Council](#) plays an important governance role and meets with the University Council, providing vision, leadership and guidance to the University on Indigenous issues through joint yarning circles. Master planning activities have also undertaken significant engagement with Elders and community groups.





Goal 17 recognises that partnerships are the engine that drive change and deliver the Sustainable Development Goals as a whole. These partnerships are stronger when shared between governments, NGOs, industry and civil society. Universities have a critical role to play in improving global outcomes by connecting leading researchers and students with industry, government and local communities.

For instance, SCU partnered with the Ngiyambandigay Wajaarr Aboriginal Corporation in the [Sea Country Indigenous Protected Area](#), training the Gumbaynggirr Rangers in water quality and estuarine biodiversity assessment, and investigating mangrove die-off and restoration. The University also collaborates internationally to review comparative approaches and develop international best practice on tackling the goals. An example of this is a €331k [EU Horizons Marie Curie Staff Exchange Project grant](#) which is investigating “Solutions to Prevent and Mitigate the Impacts of Environmental Toxins in Aquaculture and Fisheries in the Context of Global Warming”.

Our [2030 Strategic Plan](#) positions the University to change lives. We educate first-in-family, women and indigenous students, and have revolutionised our curriculum to deliver immersive learning experiences. We produce globally significant research, with five SCU publications featuring in the latest [IPCC Climate Change Report](#). We are a small institution, but this does not preclude us from being world-leading.

