

# (SUSTAIN)<sup>us</sup>

**Creating sustainable  
change together**



**Acknowledgement of Country**

Macquarie University acknowledges the Traditional Custodians of the lands on which the University is situated, namely the Wallumattagal peoples of the Dharug nation and the Gadigal peoples. Recognising the deep connection that Aboriginal peoples have with the land and water, and their role as educators for thousands of years, is an important step towards building a more inclusive and culturally respectful academic environment.

By acknowledging the enduring role of Elders and Knowledge Holders, the University not only pays respect to their legacy but also emphasises the value of the First Nations peoples’ ongoing contributions to the educational journey. Placing First Nations knowledges at the centre of educational priorities reflects a positive commitment to diversity, sustainability, wellbeing and social responsibility. This holistic approach to education, research and health not only benefits students but also contributes to the preservation of Indigenous cultures and the overall wellbeing of society.

Our Wallumattagal Campus has been designed with careful consideration given to its long history, the natural surroundings and creating a successful educational space. Promising to continue the legacy of caring for Country and prioritising the advancement of future generations through education aligns well with the University’s role in fostering positive societal change.

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# Introduction by the Vice-Chancellor

In a world facing rapidly changing environmental and social landscapes, Macquarie University is uniquely positioned to have real impact.

The University is committed to undertaking world-changing, impactful research that contributes to solving and addressing global challenges, ensuring students leave the University prepared to contribute as active citizens to an environmentally healthy and equitable society, and actively seeking to meet changing social, environmental and economic conditions and reduce the negative impact of our actions upon our environment and society.

We are developing a vibrant and sustainable campus at the heart of a rapidly changing neighbourhood, while ensuring stewardship and connection to Country on the Wallumattagal land on which the University stands. The University is committed to the responsible consumption of energy, water, food, products and transport, actively supporting sustainability in our local community and region and building its reputation for being the place to learn, to work and to connect with the local and global community.

Achieving these objectives will be guided by the *Macquarie University Sustainability Strategy 2024–2030*. Underpinned by four core commitments – with Indigenous knowledge embedded within all four commitments – the strategy is aligned with the United Nations Sustainable Development Goals (SDGs).

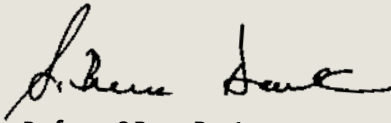
The University is already recognised for its commitment to sustainability, placing 24th in the world overall – as well as sixth for Clean Water and Sanitation, 12th for Life below Water and 25th for Partnerships for the Goals in the *Times Higher Education* Impact Rankings, 2024. This recognition follows many years of work to improve sustainability on campus – and often taking an innovative approach to achieving our goals.

Macquarie was among the first Australian universities to commit to 100-per-cent renewable electricity, driven by our dedication to developing a sustainable campus. A combined generating capacity of 746 kilowatts of installed solar panels across the Wallumattagal Campus, combined with our energy efficiency initiatives, have achieved a 90-per-cent reduction of Scope 1 (direct emissions on campus) and Scope 2 (emissions from using electricity on campus) since 2019.

Our innovative Sustainability Financing Framework – launched in 2018–19 – funded the construction of our 5-star Green Star Student Accommodation, Central Courtyard and Lincoln buildings. The naturalisation of Mars Creek was also funded through the bonds and has encouraged the return of aquatic and bird life to the revegetated riparian area.

In 2023, the University achieved a new sustainability milestone by establishing a five-year Sustainability-Linked Loan Framework, linked to six key performance indicators (KPIs). Most loan facilities of this kind are linked to a maximum of three KPIs, but Macquarie is determined to do better. This facility is already the largest of its kind for the higher education sector in Australia, and the University has committed that all savings made over the life of the loan facilities will be directed to disadvantaged students through scholarships. The framework was honoured as the global winner of the Sustainability-linked loan of the year award, the second Environmental Finance award for the University, after it won Sustainability Bond of the Year in 2019.

Our achievements so far only encourage us to reach higher. Guided by the *Macquarie University Sustainability Strategy 2024–2030*, our research will continue to help solve the world’s social and environmental issues, while the skills our students are developing at university will help them to have a meaningful impact in their future jobs.

  
**Professor S Bruce Dowton**  
VICE-CHANCELLOR AND PRESIDENT

# Strategic vision and alignment with University Strategy

- VISION**  
To create sustainable futures together
- CORE PRINCIPLES**  
We want to lead the way towards a regenerative future for Macquarie University, where our environmental, social and economic areas thrive in harmony.
1. Transitioning to net zero greenhouse gas (GHG) emissions across our campus and supply chain
  2. Playing our role as a steward to support ecosystem restoration and connection to place and Country
  3. Building the resilience of our students, staff and communities to respond to a changing world
  4. Conducting and sharing impactful education and research that supports the global sustainability agenda

Transparent governance and respect for Indigenous knowledge is the foundation of our commitments and enables us to implement our Sustainability Strategy in an ethical, effective and culturally respectful way.

The Sustainability Strategy is guided by our strategic frameworks *Our University: A Framing of Dynamic Futures* and the Senior Leadership Framework as well as the University’s Operating Plan. Critical mission-based documents covering education, research, health, professional staff and University capabilities inform the Sustainability Strategy, which is also supported by our Diversity, Inclusion and Belonging Framework, Gender Equity Strategy, Indigenous Strategy, Sustainability-Linked Loan Framework and Sustainable Linked Bonds Framework and Impact Reporting.

We want to lead the way towards a regenerative future for Macquarie University.



# Our journey to date

Macquarie University has been on a long journey of sustainability through education, health and research and through the stewardship of the Wallumattagal land on which the main University campus is located. This journey has been recognised with Macquarie placing 39th in the world in 2023 in the *Times Higher Education* Impact Rankings, including placing first in the world for UN Sustainability Development Goal (SDG) 14 – Life Below Water – and fourth in the world for SDG6 – Clean Water and Sanitation.

## Ranked 24th in the world

#6 for Clean Water and Sanitation  
#12 for Life below Water  
#25 for Partnerships for the Goals  
*Times Higher Education Impact Rankings, 2024*

## WGEA Employer of Choice

Athena SWAN Bronze Award

## Teaching

- Bachelor of Environment
- Graduate Certificate of Environment
- Graduate Diploma of Environment
- Master of Environment
- Bachelor of Environment and Bachelor of Laws
- Graduate Certificate of Environmental Planning
- Master of Sustainable Development

## Cross-disciplinary research centres

- Transforming Energy Markets Research Centre
- Lifespan Health and Wellbeing Research Centre
- Smart Green Cities Research Centre
- DataX Research Centre
- Future Communications Research Centre
- Astrophysics and Space Technologies Research Centre
- Ethics and Agency Research Centre
- Hearing Research Centre
- Motor Neuron Disease Research Centre
- Performance and Expertise Research Centre

## 2009–2015

**Sustainability Strategy**  
The first major sustainability strategy for Macquarie University

## 2015–2019

**Sustaining Our Future – Sustainability Strategy**  
Centred on research priority areas and initiatives to embed sustainability in curriculum, as well as continuous improvement in environmental protection and management

## 2018–2019

**Sustainability finance**  
World’s first dual-tranche sustainability bond, world’s longest tenor sustainability bond and Winner, Global Sustainability Bond of the Year in 2019. A\$500 million ‘use of proceeds’ allocated to green buildings, sustainable water and wastewater management and access to essential services

## July 2020

**Renewable energy**  
Total greenhouse gas emissions cut by 90 per cent, with 100 per cent of campus electricity sourced from renewable energy providers

## July 2023

**Sustainability finance**  
A\$450-million Sustainability-Linked Loan Facility largest in the higher education sector. Six ambitious KPIs. All margin adjustments benefit disadvantaged students. Winner, Sustainability-linked Loan of the Year, International Sustainable Debt Awards 2024

## 2024–2030

**(Sustain)<sup>™</sup> Sustainability Strategy**  
Four pillars:

- Net zero university
- Stewards of place
- Education and research for impact
- Resilient students, staff and communities



# Our foundations

### INDIGENOUS KNOWLEDGE

Guided by our existing Indigenous Strategy, we will weave Indigenous knowledge into the *Sustainability Strategy 2024–2030* through regular engagement with Aboriginal and Torres Strait Islander communities and gain their insight and advice to respectfully contribute to improved sustainability outcomes for Country.

We will continue to build on our relationships with local Aboriginal and Torres Strait Islander communities and engage in regular forums to develop and guide the Indigenous knowledge that underpins our strategy.

The University offers Manawari cultural safety training to staff and students. It seeks to give all staff a meaningful understanding and respect for Aboriginal cultural values, histories, beliefs, practices, knowledges and philosophies.

The training is underpinned by the Macquarie University Indigenous Strategy and Reconciliation Statement and focuses on creating a better understanding of cultural values, knowledges and perspectives that will lead to greater engagement and social responsibility.

### TRANSPARENT GOVERNANCE

By setting achievable sustainability goals and tracking their progress, the University will establish ethical governance that uses appropriate structures and processes to report against performance.

This will be achieved by:

- Defining sustainability actions that are guided by science-based, credible standards such as those developed under the Science Based Targets initiative (SBTi) and United Nations Sustainable Development Goals (SDGs).
- Measuring progress towards our sustainability actions and tracking sustainability data on an ongoing basis. We commit to reporting annually publicly on progress on this strategy.
- Ensuring Macquarie University has appropriate environmental, social and governance (ESG) policies, structures and processes in place to uphold the highest standards.

Macquarie University  
research is developing  
more sustainable  
horticultural practices.

In August 2018, Macquarie issued the world’s first dual-tranche and the longest tenor sustainability bond, when it launched a A\$250-million transaction on the Australian market. It won global recognition, including recognition by Environmental Finance as the 2019 Sustainability Bond of the Year.

The bond was governed by a sustainability financing framework that guided transactions with proceeds earmarked to finance projects that deliver positive environmental and social outcomes. These include construction of the Central Courtyard and student accommodation buildings, remediation of Mars Creek, establishment of additional endoscopy suites at MQ Health, and the construction of the new Law School and Astronomy and Engineering precinct.

With impact reporting across green, social and sustainability bonds still in its relative infancy in Australia, the transaction provided the opportunity to show leadership in this area. These efforts gathered pace with the launch of our innovative Sustainability-Linked Loan facility in 2023, which received global recognition as the winner of Environmental Finance’s 2024 Sustainability Linked Loan of the Year – Other. Not only will this help achieve important environmental and social goals, savings made over the life of this loan will fund scholarships for disadvantaged students to ensure that the benefits of sustainability are shared by the wider community.





# Our future focus

As a university – a place of future-focused research and education that generates real-world impact – Macquarie is uniquely positioned to advance a sustainable future.

Our understanding of sustainability is aligned with the United Nations Sustainable Development Goals (SDGs). The SDGs are 17 interlinked goals designed as a global blueprint to achieve a better and more sustainable future for all.

Our commitment to the principles of sustainability in all we do includes:

- undertaking research that contributes to solving global challenges
- ensuring students are able to actively contribute to an environmentally healthy and equitable society
- reducing the negative impact on our society and environment
- consuming energy, water, food, products and transport responsibly
- actively supporting our local community and region.

This strategy builds on the objectives outlined in our *Sustainability Strategy: 2015–2019*. These objectives centred on research priority areas and initiatives to embed sustainability in our curriculum, as well as continuous improvement in environmental protection and management. They led to a significant reduction in landfill, greenhouse gas emissions and potable water consumption, in addition to the protection of flora and fauna biodiversity on campus.

Learnings from the COVID-impacted years demonstrated the positive impact community and people can make by focusing on an issue and working together to drive change. In response, this strategy has been developed to multiply the impact of the University’s research and stewardship of the land through education, empowerment, action and recognition of our students, staff and the external community.

In framing the new strategy and seeking feedback on its development, we established three key working groups – Wallumattagal Campus, Community and People, and Research and Education, with Indigenous knowledge and the SDGs embedded across all areas. Through the development process, the interconnectedness between each pillar became clear, underscoring the importance of connectivity between the land, people and research and our impact on society and the environment.

Intended outcomes of the strategy include providing stewardship of the land on which the University stands, preparing graduates for the workforce, empowering our community to collaborate and act on sustainability initiatives and helping solve the world’s issues through research by the University. These commitments are outlined in the following pages of the document.

Our previous strategy led to a significant reduction in landfill, greenhouse gas emissions and potable water consumption.





# Overview of our commitments

**NET ZERO UNIVERSITY**

- Scope 1 Emissions: net zero by 2025
- Scope 2 Emissions: net zero by 2024
- Scope 3 Emissions: measure and set reduction target by 2026 in line with Science Based Targets Initiative (SBTi)
- Electrification of campus: aspirations to achieve zero fossil fuel use by 2035

**STEWARDS OF PLACE**

- Caring for Country: Indigenous campus design principles launched by 2026
- Travel: Develop and launch a green travel plan by 2026, reduce on-campus parking by 2030
- Ecosystem restoration: Tree planting to achieve 30% mature canopy cover by 2028
- Waste management: Reduce waste by 15% by 2030 (from 2022 baseline).

**EDUCATION AND RESEARCH FOR IMPACT**

- 80% of graduating students and new staff to have completed SDG and Manawari Aboriginal cultural safety training by 2025
- Embed sustainability into all faculty curriculums by 2027
- Commence utilisation of our campus for research-on-display initiatives by 2026
- Research informed voices for change by 2026 through building strong links with industry, government, non-government organisations and community.
- Establish a new SDG module for students and staff in 2024

**STUDENTS, STAFF AND COMMUNITIES**

- Safety and Wellbeing action plan implementation by 2026
- Indigenous procurement strategy implementation by 2026
- Sustainable procurement strategy implementation by 2027
- Increase safe and affordable on-campus accommodation by 50% by 2030.



The rehabilitation of Mars Creek has seen significant growth in biodiversity on campus.



# Achieving our commitments



**SCOPE 1 EMISSIONS:**  
Emissions as a direct result of an activity on site such as burning of natural gas for heating



**SCOPE 2 EMISSIONS:**  
Emissions released into the atmosphere from the generation of purchased electricity



**SCOPE 3 EMISSIONS:**  
Emissions as a result of activities that are part of the upstream and downstream supply chain (emissions associated with goods and services as well as travel)

The Living Seawalls project creates healthier oceans by improving the ecological performance of seawalls and other marine built structures.



1.

COMMITMENT 1:  
NET ZERO UNIVERSITY

For Scope 1 emissions, our headline target is zero by 2025 through the use of quality carbon credits. Our sub target is 14 per cent absolute reduction in emissions by 2028\* and 35 per cent by 2030 through electrification of equipment on campus. We aspire to zero fossil fuel use on campus by 2035.

Commitment	Impact area	Outcome	Actions
NET ZERO UNIVERSITY	Scope 1 emissions	Reduce Scope 1 emissions to zero by 2025.	Target net zero for Scope 1 emissions by 2025, assisted by offsets, while we continue to work on removing fossil fuel use on campus to decrease any future offsetting requirements. Our short-term target is 14 per cent absolute reduction in emissions by 2028* and 35 per cent by 2030 through electrification of equipment on campus. We aspire to zero fossil fuel use on campus by 2035.
	Scope 2 emissions	Reduce Scope 2 emissions to zero by 2024*.	Purchase renewable energy certificates to meet this target in line with Science Based Targets initiative (SBTi) guidelines.
	Scope 3 emissions	Reduce Scope 3 emissions in line with SBTi.	Establish and measure our Scope 3 emission reduction target by 2026 (will be aligned with SBTi guidelines)*.
	Built environment	Reduce impact from our built environment.	Demonstrate year-on-year improvements in the energy efficiency of existing and new buildings through measuring energy use per square metre of building space (gross floor area).

GREEN ENERGY THAT POWERS OUR FUTURE

In April 2020, Macquarie signed a seven-year contract to switch to a renewable electricity source for the Wallumattagal Campus. The move saw our total greenhouse gas emissions cut by 90 per cent, with the majority of campus electricity sourced from the Snowy Hydro, supported by other renewable energy sources. From 2024, 100 per cent of power is supplied by the Snowy Hydro. Under the contract, we purchase approximately 54,422 megawatt hours of clean energy per annum, saving the equivalent of 8500 households’ worth of emissions each year and helping us to surpass our original aim of reducing emissions by 40 per cent by 2030.

This partnership is also creating new collaboration opportunities in sustainable energy research that benefit the wider community. These include a research project investigating electric vehicle charging infrastructure and Macquarie students undertaking work-integrated learning placements with Snowy Hydro that provide unique practical experiences and insights they can carry forward into their careers.

USING CAR PARKS AS POWER PLANTS

Research by Macquarie has revealed that electric vehicles could become a significant part of the grid with large car parks providing storage, helping smooth out generation from other sources while the cars’ owners shop or go to work.

A typical car park at a large shopping centre with 4500 electric vehicles plugged into the grid could store almost twice the power of the Tesla battery in South Australia (currently one of the world’s biggest lithium-ion batteries), effectively becoming a power plant in the heart of the city.

While most people only think about vehicles draining energy, the research revealed they are actually a huge storage resource, especially if cars continue to be used the way they are now to commute to work or to the shops and back, where they are stationary 95 per cent of the time. Embracing electric vehicles presents a golden opportunity for Australia to cut its carbon footprint: by converting all our fossil-fuelled transport to electric transport we could reduce all our greenhouse gas emissions by about 20 per cent.



The Snowy Hydro provides renewable energy to the University.



Electrification of the campus is reducing scope 1 Emissions.

ADDRESSING SOLAR PANEL DISPARITY IN THE RENTAL MARKET

With rent stress prevalent in Australian capital cities, research conducted by economists Dr Rohan Best and Dr Andrea Chareunsky, Macquarie Business School, and Dr Madeline Taylor, Macquarie Law School, revealed a significant gap in solar panel access among tenants in Australia.

Their study shows that more than 90 per cent of tenants lack direct access to solar panels in the rental market. This research, considered the first of its kind, highlights that wealthy renters disproportionately benefit from properties with solar power, leading to more disposable income and widening the gap between high- and low-wealth renters.

The research suggests targeting landlords through policy instruments is the most effective means of addressing this disparity. Incentives encouraging landlords to install solar panels could result in savings that are then partially passed on to tenants.

Additionally, means-testing renters could ensure those with the fewest resources receive the most support, enabling access to solar panels and reducing electricity bills to ease cost-of-living pressures.

\* Sustainability Linked-Loan commitment



2.

COMMITMENT 2:  
STEWARDS OF PLACE

The Wallumattagal people of the Dharug nation were the first carers of the country that Macquarie University sits on. Since our foundation in 1964, the University has been on a journey to restore the land and waterways after they were extensively cleared for market gardens, notably through the recent restoration of Mars Creek to provide habitat for aquatic life and waterbirds. Our actions protect local biodiversity and provide space for students, staff and the local community to connect to nature, enjoy its mental health benefits and find room to breathe in the rapidly densifying Macquarie Park area.

Many areas of research and education at Macquarie University use the campus as a living lab. Our commitment to act as stewards of the land on which the Wallumattagal Campus sits builds on past restoration work on 3.5 hectares containing endangered Turpentine-Ironbark Forest on campus, to increase the connection between education, research and the campus.

Commitment	Impact area	Outcomes	Actions
STEWARDS OF PLACE	Natural ecosystem improvement	A: Increase and improve our forested areas including the Sydney Turpentine-Ironbark Forest.  B: Increase canopy cover across campus to 30%, reducing the heat island effect and supporting the mental health benefits of connecting to nature on campus.	A: Restore 3.5 hectares of habitat by 2028, increasing to high and very high the integrity of the forest (three layers of a forest with no major weeds) by 25%, to reach 74%`.  B: Plant trees to achieve 30% canopy cover on maturity by 2030.
	Travel	Green travel	Develop and launch a green travel plan by 2026 with a target of 10% reduction of on-campus parking by 2030.
	Water management	Reduce creek peak-flow during storms to care for the Lane Cove River.	Install smart basins to manage peak water flows through the catchment by 2030.
	Caring for Country	Caring for Country	Launch Indigenous campus design principles by 2026.
	Waste management	Reduce waste generation.	Reduce waste generation by 15% through prevention, reduction and re-use by 2030 (from 2022 baseline), while ensuring recycling rates are maintained.

ENHANCING THE POWER OF PUBLIC SPACES

Researchers from Macquarie’s School of Social Sciences are collaborating with Transport for NSW on the Australian Research Council Linkage Project ‘The power of public spaces’. This innovative collaboration involves government, university and community partners to explore and co-create new approaches to public space design, management and use.

The project will deepen our understanding of how public spaces contribute to social connectivity and mitigate challenges such as climate change. It will also broaden our knowledge of diverse community connections to public spaces by promoting Indigenous leadership in place design.

SMART GREEN CITIES RESEARCH CENTRE

Globally, cities face enormous challenges with rapid population growth; extreme heat and increasing climate variability; air, soil and water pollution; loss of natural habitat; and declining mental health. However, the advancement of new technologies, including sensing, Internet of Things (IoT), AI and machine learning, and growing international interest in nature-based solutions, have created tremendous opportunities to deliver transformational change that will create healthy, liveable, nature-rich cities that deliver long-term societal and economic benefits.

The Smart Green Cities Research Centre brings together more than 60 academics from across the University with combined expertise in urban ecology and biodiversity, climate change adaptation, environmental science, remote sensing, sensor development, sustainable energy, IoT, data analytics, sustainability, health and wellbeing, urban planning, governance, finance, strata and community title.

UNDERSTANDING LEAF LIFE SPANS

Groundbreaking research by an international team, led by Honorary Professor Ian Wright and Emeritus Professor Mark Westoby, on tree leaf life spans has transformed ecology.

Over two decades of investigation, this global effort explains vegetative distribution and moves ecology into a predictive science. This advancement promises to improve the accuracy of global and regional climate modelling, refine forest and vegetation management practices, forecast ecosystem responses to climate change, and enhance assessments of crop yields.

MARS CREEK REMEDIATION

Mars Creek is one of two creeks traversing the Macquarie Park campus. In 2019 and 2020, a major rejuvenation project was undertaken to improve restoration of the natural landscapes and wetlands.

The Mars Creek rehabilitation project has reduced the impact of storm flows for the Macquarie community and has improved flood mitigation both on campus and for the downstream flows of the Lane Cove River. It has also brought about significant enhancement of native plants along the project’s creek edge.

To focus on improving the habitat of the creek, a naturalised channel has been recreated alongside a section of the creek that has been piped underground for more than 50 years.

The project has created a new naturalised surface channel through a section of the original creek bed, which reinstates a riparian corridor of approximately 20 metres in width.

Additional habitat features offer native freshwater eels a new migration route from their existing habitat in the University’s lake to the rehabilitated upper reaches of Mars Creek.



The Mars Creek remediation project brought to the surface a section of creek that had been piped underground for 50 years.

\* Sustainability Linked-Loan commitment



3.

COMMITMENT 3:  
EDUCATION AND RESEARCH FOR IMPACT

As a university, we play an important role in addressing global challenges - through research that helps solve the world’s social and environmental issues, through giving students the skills to make a meaningful impact in their future jobs, and through teaching the next generation of leaders.

Commitment	Impact area	Outcome	Actions
EDUCATION AND RESEARCH FOR IMPACT	Impactful education on sustainability	Teach the next generation of leaders.	Establish a new SDG module for students and staff in 2024`.  Ensure that by 2025, 80% of graduating students and new staff have completed the SDG training and Manawari cultural safety training`.  Embed sustainability into all faculty curriculums by 2027, create better opportunities for students and enhance students’ employability.
	Knowledge sharing	Share the sustainability knowledge we develop internally with the wider community to allow us to have a greater impact in the world.	Research informed voices for change by 2026 through building strong links with industry, government, non-government organisations and community.  Showcase our research on campus by 2026 to share our achievements with the broader University, partners and the community.  Use our webpage to showcase our research through the SDG lens by 2027.

LIVING SEAWALLS

The world is in the midst of a marine construction boom. However, concrete seawalls, pilings, pontoons, marinas, recreational and energy generation structures lack the complexity required for a biodiverse marine environment, resulting in reduced marine life and lower water quality.

Recognised as a finalist in the international Earthshot environment prizes in 2021 and recipient of the 2023 NSW Coastal Management Award for Innovation, the Living Seawalls project creates healthier oceans by improving the ecological performance of seawalls and other marine built structures. Modular, three-dimensional panels are attached to flat seawalls and other ocean-facing structures to provide habitat for seaweeds and marine animals, with studies showing biodiversity levels 36 per cent greater than on unmodified structures. The modular design allows Living Seawalls to be tailored to each site – and expanded vertically to keep pace with rising sea levels. Sydney’s Barangaroo underwater garden at Waterman’s Cove represents the team’s largest installation to date, with 384 specially designed marine habitat panels.

WHICH PLANT WHERE?

Mature trees and plants play an important role in helping turn down the thermostat in urban areas by providing shade and evaporative cooling. But as temperatures rise, many plants are struggling to cope and will either fail to reach their full potential or die. To help plant for the future, Which Plant Where provides the resources needed for local governments, landscape architects and urban greening professionals to select the plants that will best survive in various locations, over the next 50 years.

The world-first species selection tool provides information on more than 2500 plant species, provides maps highlighting changes in climate suitability for plants under predicted climate change scenarios, and planting palettes – harmonised collections of trees and other plants to suit particular locations and their predicted longer-term climates. Information on biodiversity, carbon and shade value is also provided to support the development of resilient, sustainable plantings.

SAVING ANIMALS DISPLACED BY NATURAL DISASTERS

Emergency refuges for wildlife after bushfires will form part of standard disaster recovery protocols in the future.

Conservation ecologist Dr Alexandra Carthey, School of Natural Sciences, developed biodegradable habitat pods that protect ground-dwelling animals from predators after bushfires. These pods, which won Taronga Zoo’s HATCH Accelerator Program in 2023, provide a simple, effective solution to wildlife and habitat degradation and threats posed to biodiversity and wildlife internationally.

A stockpile of habitat pods will be readily available for rapid deployment. This initiative supports population recovery efforts and promotes the regeneration of habitats. A second, biodegradable habitat unit is also a valuable tool for broadscale landscape restoration.

HELPING END SLAVERY IN THE CHOCOLATE INDUSTRY

Children have been harvesting cocoa in West Africa for at least two decades, with more than 1.56 million children as young as five years old carrying heavy loads, using machetes or being exposed to chemicals in Cote d’Ivoire and Ghana in 2018–19.

Macquarie Business School Professor John Dumay leads a collaboration with the charity Be Slavery Free to produce the annual Chocolate Scorecard, which acknowledges those companies working to end the cycle of child slavery and exploitation of people harvesting cocoa in West Africa.

The Chocolate Scorecard study surveys chocolate traders, processors and manufacturers, and creates a league table of 38 of the world’s top chocolate companies, ranking their overall progress across several areas – including supply chain transparency, sustainable farming practices and whether or not children are used in the production process.

Following the Chocolate Scorecard’s launch more than a decade ago, there have been significant changes in the industry, with Ferrero now tracing the origins of its cocoa, Lindt adopting a bean to bar approach where they know every farmer, and Mars developing alternatives to using pesticides.



Helping end slavery in the chocolate industry

\* Sustainability Linked-Loan commitment



4

COMMITMENT 4:  
RESILIENT STUDENTS, STAFF AND COMMUNITIES

We recognise that we will achieve much more together as a community than individually. To have the greatest impact on society and the environment, we will bring students, staff and the external community together to act as one. We believe this will help create an intergenerational legacy, with students who feel empowered to continue to drive change in their lives and careers, and a community that values and cares for the natural world.

Commitment	Impact area	Outcome	Actions
RESILIENT STUDENTS, STAFF AND COMMUNITIES	Inclusive university	Students and staff involved in University-led sustainability and wellbeing initiatives	Establish an Australasian Campuses Towards Sustainability Green Impact Program, comprising a learning and awards program that showcases environmentally and socially sustainable practices by 2026.
			Implement a safety and wellbeing action plan by 2026.
			Increase the amount of safe and affordable University-operated on-campus accommodation by 50% by 2030.
		Expand our Junior Science Academy programs to meet the needs of under-represented groups.	Establish a blind and visually Impaired program by 2026. Expand the Deaf and Hard of Hearing program by 300% by 2028*. Expand the STEM program for girls and women by 300% by 2028*.
		Achieve fair gender representation in senior roles at the University (Associate Professor and Professor level).	Roll out staff gender equality training program across the University*. Achieve >35% of senior academic positions filled by women or gender diverse people by 2025*. Align with the Workplace Gender Equality Agency 40:40 Vision across senior academic levels and recruitment by 2030*.
	Sustainable supply chain	Our supply chain creates positive impacts and minimises harm to communities and the planet.	Implement Indigenous procurement strategy by 2026. Implement sustainable procurement strategy by 2027.

ENHANCING OUR SUPPORT FOR STUDENTS

We have introduced a range of new scholarships to further support students, including relocation grants for regional and remote students, cost-of-living bursaries for equity students and an extra accommodation scholarship. Additionally, each year a number of students from across all faculties receive the Asylum Seeker Fee Waiver Sponsorship.

To further alleviate financial burden, existing scholarships have been increased to better align with the rising cost of living. More offer rounds and heightened publicity, along with a streamlined application process, aim to improve uptake by students from disadvantaged backgrounds. The expansion of the scholarships program will be financially supported by savings achieved through our Sustainability-Linked Loan Framework.

HEARING HUB SCIENCE CAMPS FOR CHILDREN WHO ARE DEAF OR HARD OF HEARING

Children who are Deaf or hard of hearing generally attend mainstream schools, and opportunities to meet other Deaf peers are rare.

Wanting to spark change in a small but significant way was the reason the Australian Hearing Hub Junior Science Academy for children who are Deaf or hard of hearing was created in 2018. The school holiday camps brought together key Australian Hearing Hub stakeholders, such as the Parents of Deaf Children, with Macquarie University academics and clinicians, and educators at the Junior Science Academy.

The camps provide opportunities for children who are Deaf or hard of hearing to engage with their peers in an accessible communication space through hands-on science activities designed for their needs. Class sizes are capped at 12 children to reduce noise and provide a higher educator/volunteer-to-child ratio. Educators use assistive listening devices, captioning for videos and print outs for instructions. Auslan interpreters provide access for children who use Auslan, which also enables everyone to learn new signs.

The camps nurture a love for learning by making science fun, accessible and inspiring, while providing a chance for parents to connect with other parents in similar situations and build their own support networks.

DEVELOPING THE BUSINESS SKILLS OF MIGRANT WOMEN

The Food Moves Skills into Migrant Women program, an initiative by Macquarie Business School, is paving the way for former refugees to acquire vital business skills.

The innovative collaboration, between Macquarie University Centre for Risk Analytics and Food Next Door Co-Op, is changing lives by imparting financial literacy, social entrepreneurship and leadership skills to former refugee women via online learning.

All of the women who participated in the program came from farming backgrounds and had their own farms in Africa. They were growing food in Australia for self-consumption but aspire to transform their own market gardens into sustainable businesses.

In a culturally sensitive and trauma-informed learning environment, they have acquired knowledge in budgeting, financial literacy, project initiation and mentoring. The program adapted to participants’ interests, incorporating content on investments and buying shares.

BROADENING THE REACH OF CLINICAL TRIALS

We are bringing international standard clinical trials to regional, rural and remote Australia with the support of cancer charity Love Your Sister. People in these areas typically experience poorer outcomes with common cancers, a disparity particularly pronounced in Indigenous people.

The ONTRAC project, spanning three years, aims to make cutting-edge cancer treatments accessible to vulnerable populations by establishing fully equipped clinical trial units in regional healthcare centres. Local people will receive training in clinical trials delivery to staff these units.

Patients will be able to receive the latest treatments closer to home and family, reducing the burden of long-distance travel. Macquarie is collaborating with Dubbo hospital, the newly formed Western NSW Clinical Trials Support Unit, and NSW Health.



Hearing Hub science camps engage children who are Deaf or hard of hearing.

\* Sustainability Linked-Loan commitment



# Glossary

**SBTi**

The Science Based Targets initiative (SBTi) enables organisations worldwide to use science-based targets to define a path to reducing greenhouse gas emissions to limit global warming to 1.5°C. They define how much and how quickly a business must reduce its emissions to be in line with the Paris Agreement goals.

**SDGS**

The 2030 Agenda for Sustainable Development was adopted by the United Nations in 2015. At its heart are the 17 Sustainable Development Goals (SDGs), which are a set of priorities and aspirations to guide all countries in tackling the world’s most pressing challenges. These goals include ending poverty and hunger; protecting the planet from degradation and addressing climate change; ensuring that all people can enjoy prosperous, healthy and fulfilling lives; and fostering peaceful, inclusive societies that are free from fear and violence. Universities occupy a unique position within society. With a broad remit around the creation and dissemination of knowledge, universities are powerful drivers of global, national and local innovation, economic development and societal wellbeing. As such, universities play a critical role in achieving the SDGs and benefit greatly from engaging with them.

**ESG**

The environmental, social and governance framework helps stakeholders understand how an organisation is managing risks and opportunities related to environmental, social and governance factors. ESG takes the holistic view that sustainability extends beyond just environmental issues.



The multi-award winning Macquarie University Incubator is a sustainable timber building that minimally impacts the local environment.



