

**WESTERN SYDNEY
UNIVERSITY**



JUST SUSTAINABILITY

**SUSTAINABILITY REPORT
2019**



THE UNIVERSITY IMPACT RANKINGS WORLD-LEADERS

THE UNIVERSITY IMPACT RANKINGS 2019 TOP 20



5 GENDER EQUALITY

1st

worldwide for
SDG 5: Gender
Equality



10 REDUCED
INEQUALITIES

2nd

worldwide for
SDG 10: Reduced
Inequalities



11th

worldwide and 1st
in Australia in the
THE University
Impact Rankings

The University Impact Rankings are a new initiative by the highly-influential Times Higher Education (THE) and the only global performance ranking that assess universities against the United Nations' Sustainable Development Goals. In 2019 these rankings measured more than 450 universities from 76 nations for their research, outreach and stewardship on social, ecological and economic impacts.

ACKNOWLEDGMENT

With respect for Aboriginal cultural protocol and out of recognition that its campuses occupy their traditional lands, Western Sydney University acknowledges the Darug, Gundangara, Tharawal (also historically referred to as Dharawal) and Wiradjuri people and thanks them for their support of its work in their lands (Greater Western Sydney and beyond).

SUSTAINABILITY REPORT 2019

FOREWORD

'Just Sustainability' refers to the importance of ensuring "a better quality of life for all, now and into the future, in a just and equitable manner, while living within the limits of supporting ecosystems."

(Agyeman et al, 2003)

Just Sustainability, our 5th Annual Report, showcases our achievements over 2019 and considers the challenges for an equitable and sustainable future for Western Sydney. The year began with world recognition in the Times Higher Education Impact Rankings and ended with unprecedented bushfires across the country.

In April 2019 Western was globally acknowledged as a University of Impact in our pursuit of the SDGs, according to the inaugural Times Higher Education University Impact Rankings. Western was ranked 1st globally for our work in addressing gender equality and 2nd globally for our contribution to reducing inequalities, through our education, research and partnerships. We gained an overall world ranking of 11th place for

performance with SDGs, and the highest ranked university in Australia in this regard.

Despite over two decades of economic growth the gap in income inequalities continues to increase. Postcode, particularly in Western Sydney, can determine access to health and education services. Climate change impacts, long forecast by our scientific community: higher temperatures, extended and more widespread droughts and more extreme fire behaviours and events, have arrived. It remains the University's responsibility as a leading regional anchor institution to mobilise our significant human and intellectual resources to address these complex and unpredictable sustainability issues. Climate change adaptation and mitigation, poverty abatement, improving public health and supporting environmental sustainability must be addressed in new and systemic ways. Developing a resilient research institution and region that generates successful graduates with an understanding of socio-political and ecological complexity is critical. These graduates will contribute to meaningful transitions locally, regionally and globally as an urgent and

central priority.

Drawing on our significant historic and ongoing connections in this region and the international recognition of our sustainability leadership and impact, the University accepts this challenge. How we respond as a campus, a community and a country is more important than ever.



Professor Barney Glover AO
Vice-Chancellor and President

SNAPSHOT: WESTERN SYDNEY UNIVERSITY

49,262*

Western Sydney undergraduate and postgraduate students

78%

of our domestic students come from Greater Western Sydney

64%

of all our domestic students are first in family to come to university

SUSTAINABILITY AT ITS CORE

OUR CORE FRAMEWORK

The University has a distributed governance framework that is responsible for supporting the delivery of sustainability initiatives across Curriculum, Operations, Research and Engagement (CORE). These areas align to various overlapping Sustainable Development Goals (SDGs) and we acknowledge the cross-cutting themes of education (SDG 4) and partnerships (SDG 17) that underpin our work in all CORE areas.

CURRICULUM

OFFICE OF THE DVC (ACADEMIC), SUSTAINABLE FUTURES

Sustainable Futures is situated in PVC Learning Futures portfolio, led by Ms Jen Dollin. The team focuses on curriculum renewal and on leading strategic teaching and engagement initiatives internally and externally.

Key responsibilities:

- Curriculum development and academic support
- Student experiences, both local and global
- Engagement and partnerships
- Secretariat to international RCE network
- Host of United Nations Academic Impact SDG 10

OPERATIONS

OFFICE OF THE VP (FINANCE AND RESOURCES), ENVIRONMENTAL SUSTAINABILITY

The Office of Estate and Commercial sits within the Division of Finance and Resources, and includes Estate Planning and Strategy, Infrastructure Services, Commercial Development Services and Governance, and Environmental Sustainability, all of which contribute to sustainable campus operations. The Environmental Sustainability team is led by Dr Roger Attwater, whose key responsibilities include:

- Living Lab initiatives
- Environmental sustainability action planning
- Operations of the Hawkesbury Farm

RESEARCH

OFFICE OF THE DVC (RESEARCH, ENTERPRISE & INTERNATIONAL), RESEARCH THEME CHAMPIONS

Sustainability is a key focus of research across many schools and research institutes. Established in 2016, the Research Theme Champions initiative has developed an overarching vision for sustainability to increase research impact in complex and interdisciplinary research areas. Our research is wide-ranging, applied and interdisciplinary. The environment and sustainability research theme champions are Professor Juan Salazar and Associate Professor Sarah Zhang, with senior research fellow Dr Sebastian Pfautsch.

ENGAGEMENT

A SHARED APPROACH

The role of engagement is shared by many parts of the university with specific units dedicated to core engagement activities. These include:

- Office of Engagement
- Equity and Diversity
- Widening Participation
- Student Representative Council (SRC)
- Student Experience Office
- Directors of Engagement (representing various Institutes, Schools and The College)
- Whitlam Institute

THE SUSTAINABLE DEVELOPMENT GOALS

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. The 17 Sustainable Development Goals (SDGs) are an urgent call for action to end poverty, improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. (United Nations, 2016)



SUSTAINABILITY DATA OUR PROGRESS

We aspire to be in the top 10 overall globally for The Times Higher Education Impact Rankings by 2030.

2019 AT A GLANCE...



11th

in the global Times Higher Education University (THE) Impact Rankings for our work and progress on the SDGs



31,907

breakfasts were served to students on 7 campuses 3 days per week via Student Experience Office.



1,566

students graduated from health professions (medicine, nursing and midwifery, and health sciences) across all levels of study.



1,300

students engaged with the 21C Sustainability Bootcamp curiosity pod, with the first digital badge sent out in Spring 2019.



45%

of our senior academic staff and more than half of our students are women.



700 Megalitres

of water reuse on Hawkesbury through the Hawkesbury Water Recycling Scheme. This includes recycled water and stormwater harvesting.



5,814

students are first in family to start their first degree this year, with almost 900 international students first in family from developing countries.



85%

of our total waste produced on campus was recycled, with only 15% of waste ending up in landfill.



3

critically endangered Cumberland Plain Woodland vegetation communities on our campuses supported by Vegetation Management Plans.

AIM OF THE GOALS

SDG 2 - Zero Hunger: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

SDG 3 - Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

SDG 4 - Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

SDG 5 - Gender Equality: Achieve gender equality and empower all women and girls.

SDG 6 - Clean Water and Sanitation: Ensure availability and sustainable management of water and sanitation for all.

SDG 10 - Reduced Inequalities: Reduce inequality within and among countries.

SDG 12 - Responsible Consumption and Production: Ensure sustainable consumption and production patterns.

SDG 15 - Life on Land: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

SUSTAINABILITY HIGHLIGHTS 2019

CURRICULUM



OPERATIONS



OUR COMMITMENT

“We take seriously the mission to educate our graduates about the critical importance of the Sustainable Development Goals so that they may make a significant difference in the world.”

Professor Simon Barrie, Deputy Vice-Chancellor Academic and Vice-President (Academic)

OUR COMMITMENT

“Estate and Commercial are proud of our work as a leader in the Higher Education sector in delivering Green Star accredited buildings that are focused on sustainability metrics.”

Mr Peter Pickering, Vice-President (Finance & Resources)

HIGHLIGHTS



1st

digital badge award to Western students. This badge was in recognition of completion of the 21C Sustainability Bootcamp.

HIGHLIGHTS



8

Green Star accredited buildings constructed on our campuses, with more underway.



finalist

for the national HE Green Gown Award Australasia 2019
‘Benefiting Society’ for the RCE SDG Youth Challenge.



living labs

underway addressing campus redevelopment, climate change, sustainable energy, water cycle management, and natural and cultural ecology.

SUSTAINABILITY HIGHLIGHTS 2019

RESEARCH



Environment and sustainability research theme

ENGAGEMENT



OUR COMMITMENT

"The University is undertaking a significant role in spearheading research with impact across environment and sustainability; health and wellbeing; education and work; and urban transformations, on a national and international scale. These guide our responses to global grand challenges and ongoing and emerging crises."

Professor Deborah Sweeney, Deputy Vice-Chancellor and Vice-President (Research, Enterprise & International)

HIGHLIGHTS



researchers working under environment and sustainability theme, collaborating with government, industry and partner institutions.

OUR COMMITMENT

"We are deeply committed to improving access to education and addressing inequality. Access to higher education and promoting aspirational pathways for students is something that is so central to the University, along with our long-established equity and diversity policies that are embedded in the University."

Professor Barney Glover AO, Vice-Chancellor and President

HIGHLIGHTS



students with disability supported with the launch of our new formal Academic Integration Plan which includes almost 800 specific support activities or adjustments.



Professor Belinda Medlyn from the Hawkesbury Institute for the Environment was named the 2019 ARC Georgina Sweet Australian Laureate Fellow.



supporting 3 PhD scholarships (valued at \$50,000 per year) for Aboriginal and Torres Strait Islander students undertaking higher degree research — one of the largest in the sector.



Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

TAKING STEPS CLIMATE ACTION

“Currently there is a significant gap between the aggregate effect of the global signatories’ mitigation pledges under the Paris Agreement in terms of global annual emissions and attempts to keep the rate of warming below 2 degrees. Failure to achieve such a goal will make worldwide efforts to end poverty and reverse inequalities more difficult or impossible.” KCCA organisers

RESILIENCE PLANNING FOR CLIMATE CHANGE RISKS

A Preliminary Resilience Assessment has been developed to address the risks of climate change on Western campus infrastructure and communities. A series of campus-based workshops identified opportunities for cross-disciplinary engagement and student recognition, adaptation opportunities and integration through Living Labs, communication strategies and best practice.

KNOWLEDGE, CULTURE, CLIMATE ACTION (KCCA) 2019 SOCIAL CRISES AND CLIMATE EMERGENCY - BEYOND THE PARIS AGREEMENT

With the support of the Australian Embassy in Chile and Ecuador, a team from the Institute for Culture and Society, led by Dr Fiona Cameron and Professor Juan Salazar, co-organised a two-day symposium with Chilean partners including the Center for Climate and Resilience University of Chile, the Millennium Center in Energy and Society and the Research Center for Integrated Disaster Risk Management. Speakers represented research institutions, cultural organizations, and NGO's from 12 countries. With over 300 attendees, mostly young people, the symposium was planned as a COP25 activity, to discuss the interconnection between social crises and the climate emergency. The exchange of experiences, scientific evidence, traditional knowledge and youth perspectives underlined the importance of addressing social demands along with environmental and climate challenges. The ultimate goal was to contribute to acceleration of climate action as stipulated in the 2015 Paris Agreement.

WESTERN SUPPORTS GLOBAL #CLIMATESTRIKE

“We have the most students of any university in NSW from Aboriginal and Torres Strait Islander, Pasifika, refugee, and low SES backgrounds. We are therefore especially aware of the need to care for the country on which Western Sydney was built, to act urgently to protect those nations in the Pacific most immediately at risk of rising sea levels, to open our arms to those that the climate crisis inevitably will displace, and to ensure there is a secure and just transition of the workforce to a sustainable economy.”
Climate Caucus Student Group

Over 300 students and staff signed the petition to support the global climate strike, and over 50 Western staff and students attended the strike in Sydney city. Western students and staff gained collegial support to attend this year’s global climate strike. This movement was led by student group Climate Caucus and the Western Sydney NTEU branch, with support from the Student Representative Council, the student Environmental Collection, the Chaplaincy and others.

PROTEST FOR A FUTURE: SYDNEY

Associate Professor Philippa Collin of Western’s Young and Resilient Research Centre is leading a team researching Australian student leadership and participation in the Global Climate Strikes aligned with a global study in 19 countries. The project researches and analyses participation in the SchoolStrike4Climate, looking at participant demographics, organising tactics and new intergenerational solidarities for action on climate change. From the September 2019 protests, the research found that while the movement is youth-led and most participants were school students, younger people were strongly supported by Millennials and GenXers, women, and people identifying as working or lower-middle class. Sydney protester motivations included pressuring politicians to act on climate change, raising awareness and showing solidarity with others. They felt that governments should play a lead role and that global justice must be advanced via climate change action. Importantly the climate protests mobilised people with little or no experience with demonstrations.

HAWKESBURY CLIMATE FORUM

“From farmers to residents to businesses and environmentalists, from grandparents to their grandchildren, we all have an interest in our climate... This is about Council, MESCA, climate related experts and the community talking together so we can build a resilient and adaptable community, and secure a better climate future.” Deputy Mayor, Hawkesbury City Council

The Hawkesbury Climate Forum, organised by the Macquarie Electorate Student Climate Activists (MESCA) and supported by Hawkesbury City Council, aimed to raise broad discussions about climate change with the local community. Speakers included Dr Neil Perry from the School of Business who discussed the ‘cost of climate action vs the cost of doing nothing’, as well as local educators, students from the MESCA and the Deputy Mayor, and was moderated by a member of RCE Greater Western Sydney. Earlier in the year Hawkesbury City Council declared a climate emergency that calls for urgent action by all levels of government, pushed by local high school students.

PARRAMATTA LIGHT RAIL GREEN TRACK RESEARCH

“Our research confirms that green track will perform important environmental functions that improve the amenity and ecology of the local area. These benefits are particularly interesting for a city like Parramatta, where summer heat and more general heat island effects are of concern for public health and integrity of infrastructure.”

Dr Sebastian Pfautsch, Environment and Sustainability Research Theme Fellow

Western Sydney University research has verified the viability of green track in Western Sydney, in a study commissioned by Transport for NSW for the Parramatta Light Rail project. The NSW Government will deliver Australia’s longest stretch of “green track” as part of the Parramatta Light Rail project. Parramatta Light Rail will feature up to one kilometre of green track, which involves planting grass or shrubs between and beside light rail tracks instead of asphalt or concrete, across three main areas, namely Cumberland Hospital, Robin Thomas Reserve and Tramway Avenue.

SPOTLIGHT: HOW HOT IS OUR CAMPUS?

“I found it enjoyable, and useful. I’ve not done this sort of activity before and understood what surfaces would be higher or lower in temperature, but didn’t realise the intricacies of the same surface.”
Sustainability Bootcamp student

As part of the on-campus workshop for the 21C curiosity pod, the Sustainability Bootcamp, 45 Western students investigated first-hand how hot our campuses (Parramatta South and Kingswood) are and the effects of urban heat. Students took surface heat readings in various locations around the campuses, before coming up with a creative poster campaign to share their findings. On a warm Spring day, some spots on campus recorded readings between 50 - 60 degrees Celcius, with 67°C in full sun car park on Parramatta South being the highest student data recorded. Students were also asked to reflect on what actions they could take for a cooler future for Western Sydney.

The Urban Heat workshop builds on and features work from Dr Sebastian Pfautsch’s research on urban heat in Western Sydney, as well as the Western Sydney Regional Organisation of Councils (WSROC) Turn Down the Heat Strategy.

URBAN HEAT IN WESTERN SYDNEY



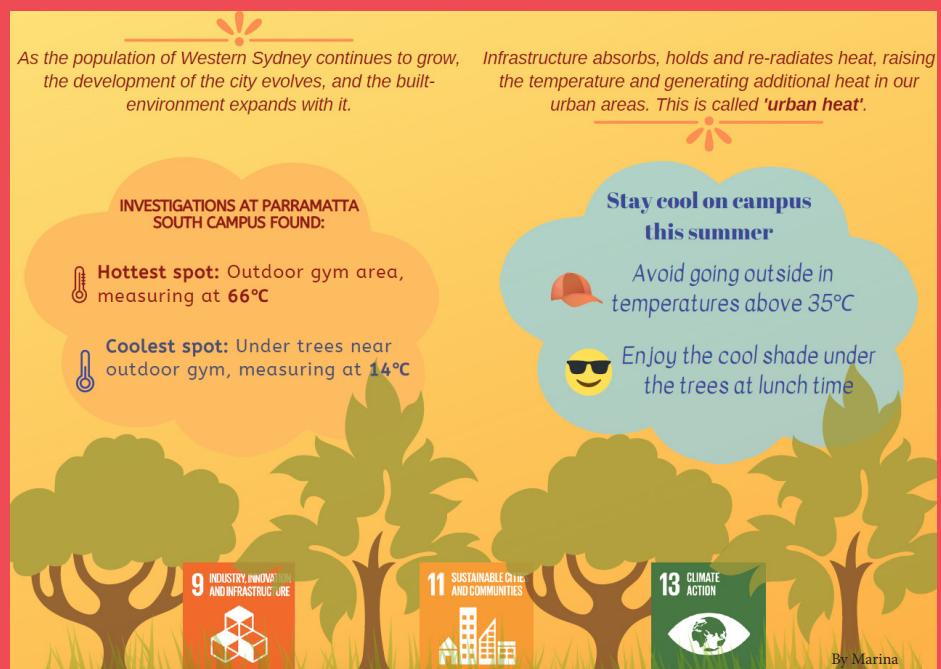
days above 35°C ('hot day') recorded in 2018-2019 in Penrith, 19 days recorded in Parramatta and 20 days in Bankstown. This is compared to 6 days in the Sydney CBD. (Greater Sydney Commission, 2019)



100%
higher energy consumption for cooling purposes in western Sydney than in the eastern suburbs during hot days.
(Sydney Water, 2018)



35°C
is the threshold for a 'hot day' because the human body's ability to cool itself reduces, making it a common benchmark temperature.
(HeatWatch, 2018)





Target 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development including, among others, through education for sustainable development.



THE UNIVERSITY
IMPACT
RANKINGS
SDG 4 QUALITY EDUCATION
TOP 20

A DISRUPTIVE FUTURE 21C LEARNING

“21C is Western’s response to two big things - a disruption in the future of work for our graduates and also a disruption in the future of society. We need to equip our graduates as leaders and advocates for change and recognize that students need to leave university with a set of hybrid capabilities – not only a single set of disciplinary capabilities.” Professor Simon Barrie, Deputy Vice-Chancellor Academic and Vice-President (Academic)

OUR TEACHING

Sustainability thinking provides learning breadth to our programs and equips our students with hybrid capabilities. At Western, students from all disciplines can undertake units and degree specialisations (sub-majors or majors) that support transformative teaching towards the SDGs, further enhancing our educational impact.

In our new Global Sustainability Program we ask our students to consider the following:

How can we create a sustainable society? What is your understanding of ethics, rights, justice and democracy in society? How can we tell we are in the new epoch of the Anthropocene?

How can we develop new ways of thinking and learning that enable us to recognise the connections between environmental concerns, social patterns and individual actions?

What is the value of animals, rivers and mountains?

Should we destroy rainforests to make way for housing or agricultural development?

21C: SUSTAINABILITY BOOTCAMP

The Sustainability Bootcamp is a trans-disciplinary experience that introduces students to the concepts of Sustainable Development through systems awareness, worldviews and futures thinking. Available to all Western students, the 15-hour Bootcamp profiles inspiring local initiatives and research across Western Sydney that contribute to addressing our global challenges. Students who complete the Sustainability Bootcamp, which includes online interactive learning and an on-campus workshop, are awarded a digital badge – the first of its kind at Western. The Sustainability Bootcamp is one part of the Global Sustainability Award Program, which includes the Global Sustainability sub-major. The jointly badged award is supported by the Regional Centre of Expertise on Education for Sustainable Development network and is acknowledged by the United Nations University.

NCP: SUSTAINABILITY IN ACTION

“The moment you get to the destination and realise just how much your research project could impact the people living there, it is an unreal experience and a fantastic learning opportunity. This NCP trip definitely opened my eyes to the opportunities I could have in the future. After taking this trip, I have decided to apply for my Master of Research.” Science student, NCP Philippines trip

Forty-five Western Sydney students from anthropology, science, communications and social science undertook an international mobility program with Sustainable Futures. Funded by the Australian Government New Colombo Plan (NCP), the programs focused on perspectives of sustainability to critically examine themes of community development, rural livelihoods and tourism impacts. These immersive programs took place in Papua New Guinea, the Philippines and rural China. Students were given the opportunity to work on real-world projects, undertaking first-hand research as part of an intensive internship or their academic program.



Western supports *transformative teaching* for the Sustainable Development Goals 2020



NEW COLOMBO PLAN

Connect to Australia's future - study in the region



SCHOOL OF NURSING AND MIDWIFERY: FROM MILLENNIUM DEVELOPMENT GOALS TO THE SDGS

"Sustainability is essential when discussing Primary Health Care - business as usual is no longer an option." Dr Fiona McDermid, Director, Student Engagement, School of Nursing and Midwifery

For Western Nursing students the SDGs build on the framework of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. Primary Health Care in Action is a core unit in the Nursing program that introduces students to Primary Health Care as a social model of health and a World Health Organization (WHO) strategy for achieving just and humane health care. In both the undergraduate and postgraduate programs the 21C Sustainability Bootcamp has been embedded into this unit. As Western graduates our Nursing students graduate with hybrid capabilities for a changing world. These include:

- an anticipative perspective and future orientation;
- an ability to think critically, creatively and systemically;
- an action competence;
- an ethical sensibility; and
- an ability to manage in conditions of change, uncertainty and risk.

THERE IS NO CHANGE WITHOUT LEARNING AND NO LEARNING WITHOUT CHANGE.

A large, semi-transparent background image of a man with dark hair and a full beard, wearing white-framed glasses and a white patterned shirt. He is looking down at a map or blueprint spread out on a table. The scene is set in a warm, indoor environment with blurred lights in the background.

SCHOOL OF THE BUILT ENVIRONMENT: REDESIGNING INDUSTRIAL DESIGN - THE CIRCULAR ECONOMY

"The brand new industrial design offerings will have explicit reference in unit content to the United Nations Sustainable Development Goals. Two of the new units have a Circular Economy focus centred around SDG 12 (with linkages to SDG 11, 13, 17), and the other one is in design thinking and strategic decision-making around the SDGs. Several other existing units support SDG principles in part. There shouldn't possibly be a unit that does not respond to the goals in some way." Dr Sasha Alexander, Director of Academic Program (Industrial Design), School of Built Environment

Design thinking has become widely adopted as a novel problemsolving mechanism and asset to market growth, resource utilisation, and competitiveness. These new units will allow Western undergraduate students to develop ideas that are user and environmentally considerate, with life cycles that are restorative rather than depletive, embracing the power of circular production systems. They will allow students to explore hands-on future possibilities and motivate them to contribute to local and international efforts, informed by global challenges as represented through the SDGs. These units are available university-wide to Industrial Design, Technology, Engineering, Architecture, Science and Business students.



SCHOOL OF ENGINEERING: ENGINEERS TAKE ON THE GLOBAL GOALS

The School of Engineering has mapped links with a number of SDGs in their teaching and extra-curricular programs. These are underpinned by SDG 4 and SDG 17, and include:

- **SDG 7:** The Western Sydney University Solar Car Project, an extra-curricular student led project. The School also offers a series of core and elective units in key programs like their 'Electrical' specialisation which includes power quality and systems, smart grids and sustainable energy systems.
- **SDG 9:** The Formula SAE-A project and the Robotics Challenge are both extra-curricular student-led projects looking at technological innovations. Students are also offered summer scholarships and industry-based research projects.
- **SDG 11:** The Engineering without Borders project, embedded in a first year multi-disciplinary unit, aims to address many of the world's problems and improve the well-being of communities through sustainable measures.
- **SDG 13:** The Sustainable House Project, embedded in a final year multi-disciplinary unit.
- **SDG 17:** Industry partnerships for teaching, as well as research.



ENGAGED STUDENTS TAKING ACTION

"I gained invaluable exposure to soils and landscapes unlike those in my local region, whilst engaging with other students and professionals united by a love of land and science. We met some incredibly passionate individuals demonstrating real-world efforts in soil and land reclamation, which has fostered a sincere passion for Soil Science and a desire to focus on soil use and management in my future learning and career goals." Sustainable Agriculture and Food Security student

LIVING SCIENCE: ALL-FEMALE TEAM TAKE ON THE NATIONAL SOIL COMPETITION

The National Soil Judging competition, sponsored by Soil Science Australia, is an annual event in Australia and New Zealand. University teams compete to accurately describe and assess a series of soil types and determine their constraints and capability for several land uses including agriculture. Western has competed nationally and internationally over the past five years. This year the teams competed in South Australia against 15 teams across 10 Universities from Australia and New Zealand. Coached by Dr Jason Reynolds from the School of Science, the only all-female team in the competition was comprised of undergraduate science students. After two practice days and a fiercely contested "competition day", the Western team secured 5th place in the teams competition with all of the Western students ranking in the top 20 as individuals.

THE ACADEMY: THINK BIG! IGNITE. INNOVATE. INITIATE.

Inspired by our students and their insights and considered visions of how to shape our future, The Academy hosted 'Think BIG!' in December. This hackathon style event allowed students, from both Western and a local high school, to come together to explore current and emerging challenges from local and global perspectives. In the process they developed creative thinking and entrepreneurial skills to innovate and initiate change. Over 100 students participated in this fast-paced challenge. A winning team in each theme area aligned to 21C Curriculum Challenges - Future Thinkers, Global Citizens, Innovative Entrepreneurs and Sustainability Advocates - was selected by a judging panel and these teams will be voted on by fellow students. In addition to a mentoring opportunity the winning team will receive a leadership opportunity valued at up to \$1,000. This event was supported by the 21C Project.



For the second year in a row, The Academy students were awarded Millennium Fellowships by the United Nations Academic Impact working on campus-based SDG projects.



STUDENT SPOTLIGHT: MICHELLE BOYLE

This year has been awe inspiring, having been ignited by the RCE network. It has spurred me on to collect 230kg of donations [stationery, hygiene items, material goods and children's clothing] - which went back to students travelling to Lucknow this year, the same trip I took in 2018. I am looking forward to what the future holds and doing more work with the SDGs."

Inspired by a New Colombo Plan trip with The Academy to Lucknow in India and as part of the 2019 RCE SDG Youth Challenge and 2019 Millennium Fellowship, Mrs Michelle Boyle has been creating concepts around innovating female hygiene and education for young girls in rural India, contributing back to the communities she visited.





Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resource

ENVIRONMENTAL SUSTAINABILITY LIVING LABS

"Living Labs are collaborative partnerships for utilising campus assets as a focus of teaching, research, demonstration and engagement. The essential components of Living Lab initiatives are that they are multidisciplinary in focus and have some broader strategic opportunities. Initiatives developed to date include applications to broad societal issues of urban development, natural and cultural heritage, renewable energy, urban heat, water recycling, and peri-urban food systems." Dr Roger Attwater, Senior Manager, Environmental Sustainability

RESILIENCE ROADSHOWS

Building upon the Preliminary Resilience Assessment (PRA) for climate change risks to campus infrastructure and communities, a series of Resilience Roadshows were undertaken with staff and students on Kingswood and Hawkesbury campuses. These workshops began with a brief summary of the PRA recommendations of:

- Embedding resilience in strategy and planning, through enhancing capacities across the CORE areas; promoting citizen scholarship and Living Labs; and developing resilient precincts through Green Star Communities.
- Enhancing integrative infrastructure strategies, including sustainable energy and water strategies, strategic asset planning, and design for thermal tolerance and protection.
- Implementing adaptation strategies for design and operations, such as heating and cooling (HVAC) demands and passive thermal design, thermal comfort through shading and refuges, and readiness for increasing bushfire risk and storm damage.

Each roadshow then comprised a series of short presentations by academic champions on local Living Labs to inform our strategies for mitigation and adaptation. On Kingswood these included local renewable energy, urban heat mitigation and environmental education around urban bushland. On Hawkesbury, initiatives included peri-urban agriculture, cooling plants, and water recycling. At both events, representatives of the Student Representative Council's Environmental Collective also outlined their key student engagement initiatives.

NUTRIENT OFFSETS AND STORMWATER WETLAND TREATMENT

This initiative builds upon the established water recycling scheme at Hawkesbury Campus which incorporates wetland treatment of stormwater used for campus irrigation. Dr Chris Derry from the School of Science in partnership with Sydney Water Corporation has established a research partnership agreement to set up a system of monitoring nutrient removal processes of the mature 20 year old stormwater wetland system to inform Sydney Water operations in relation to the NSW EPA's nutrient offset program.

WERRINGTON LIVING LAB

The redevelopment of the Werrington Estate has been identified as a focus for multidisciplinary Living Labs. Along with a Reference Group of senior staff, the research component of this initiative will be led by Prof Nicky Morrison from the School of Social Sciences. A series of workshops were convened with staff from the Environmental Sustainability Research Theme, and broad ranging academic and operational interests, to identify preliminary opportunities across our research themes of Urban Living, Health and Well-being, Education and Work, and Environment and Sustainability. Future environmental initiatives planned for the precinct include:

- Building a carbon negative precinct demonstrating sustainable infrastructure, building energy monitoring and modeling.
- Creating solar panels and solar car parks.
- Achieving principles of a circular economy.
- Supporting wildlife and biodiversity through bush regeneration and environmental education.

VINEYARD CREEK CULTURAL ECOLOGY

Separated from the main Parramatta South campus by a rail corridor, Vineyard Creek is an area of significant natural and cultural heritage. A series of transitional ecological communities from the mangroves of the edge of Parramatta River upstream support a range of native species, including Burramatta eels. Elders have been observed on the spring tides returning up into the creek, completing a lifecycle out to the Coral Sea and back. The area may have had significant use by the local aboriginal groups, though disturbances have included quarrying for sandstone in the colonial era, and subsequent impacts of rail development. Dr Maryella Hatfield and a group of students from the School of Humanities and Communication Arts have undertaken videography sessions, with discussion of related issues and opportunities. Dr Brenda Dobia has also taken groups of education students out on site. Bush regeneration efforts are ongoing, in a manner consistent with a Bushland Management Strategy.



CAMPUSES AS LIVING LABS

A range of established Living Lab initiatives continue to develop, including:

- The Centre of Excellence for Peri-Urban Futures has been established as a collaborative arrangement on Hawkesbury campus with the School of Science, Richmond TAFE and the proposed Centre of Excellence – Richmond Agricultural College, for educational pathways, innovation, engagement and resource sharing.
- Growing Chinese Medicinal Herbs with the collaboration of Dr Shaoshu Zhu from the Traditional Chinese Medicine group in the School of Health Sciences and Prof. Priti Krishna from the School of Science.
- Demonstrating an Internet of Things (IoT) application for precision agriculture in a commercial grazing operation, with collaboration including Dr Richard Thomas from the School of Science, as well as staff of the Hawkesbury Farm and The Yield.
- Investigating building energy behaviour enhanced by solar technologies, such as panels and batteries, with Dr Ali Hellani School of Engineering and Dr Tosin Famakinwa from Technical Support Services.
- Benchmarking urban heat in car parks before the installation of solar car park structures with Dr Sebastian Pfautsch, Environment and Sustainability Research Fellow.
- Use of CO₂ concrete for biosecurity structures on Hawkesbury Farm, and building energy modelling, with Prof. Vivian Tam from the School of Built Environment.

534

buildings across our main campuses

50%

of buildings use a 'hybrid' lighting system, combining sunlight with artificial light.

15%

of buildings have been fitted or retrofitted with energy efficient LED lighting

50%

of buildings have been retrofitted with energy efficient heating and cooling systems.

OUR CAMPUS FOOTPRINT



HAWKESBURY

Land area	1,327 hectares
Buildings	272
Gross floor area	89,095m ²
Students	1,942



PENRITH

Land area	192 hectares
Buildings	84
Gross floor area	118,428m ²
Students	4,533

BLACKTOWN (NIRIMBA)

Land area	78 hectares
Buildings	36
Gross floor area	23,017m ²
Students	2,252

WESTMEAD



PARRAMATTA (SOUTH AND NORTH)

Land area	29 hectares
Buildings	44
Gross floor area	56,105m ²
Students	10,197

PARRAMATTA CITY

Style Students	Vertical campus
	4,328

SYDNEY OLYMPIC PARK



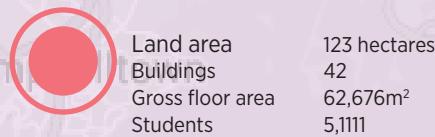
LIVERPOOL CITY

Style Students	Vertical campus
	1,477

BANKSTOWN

Land area	23 hectares
Buildings	53
Gross floor area	47,481m ²
Students	4,150

CAMPBELLTOWN



Land area	123 hectares
Buildings	42
Gross floor area	62,676m ²
Students	5,111

Main campuses: Bankstown, Blacktown (Nirimba), Campbelltown, Hawkesbury, Liverpool City, Parramatta (South and North), Parramatta City, and Penrith (Kingswood, Werrington North and Werrington South) and Sydney City.

Other campus sites: Bathurst, Blacktown Clinical School, Lismore, Lithgow, Liverpool (Hospital), Macarthur Clinical School (Campbelltown), Sydney Olympic Park and Westmead. **Offshore campus sites:** Hong Kong and Vietnam.



Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

CAMPUS OPERATIONS INITIATIVES

ENVIRONMENTAL SUSTAINABILITY ACTION PLAN

During 2019, progress was made to adapt the established Western Environmental Management System into an Environmental Sustainability Action Plan incorporating compliance through management systems, expanded risk management and resilience planning, as well as Living Lab engagement initiatives. Oversight of this is through an advisory group with representatives associated with sustainability across the CORE domains (curriculum, operations, research and engagement), and the Student Representative Council.

Strategies and initiatives, compliance requirements and risks, interdependencies and targets, and related sustainable development goals, have been drafted for the following key themes:

- Resilience planning for climate change
- Sustainable energy
- Water cycle management
- Green Star buildings and precincts
- Waste and the circular economy
- Biosecurity
- Biodiversity conservation
- Peri-urban agriculture
- Transportation and travel
- Social and corporate responsibility

SUSTAINABLE ENERGY STRATEGY

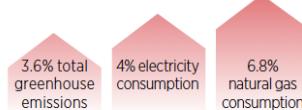
A Sustainable Energy Strategy has been developed, based upon analysing WSU's carbon and energy footprint and assessment of targets for emissions reduction and renewable energy. Pathways to achieve these targets have been modelled, with action plans developed in relation to: leaderships, grid decarbonisation, buying clean energy, on-site generation, energy efficiency, sustainable transport, waste management, supply chain management, and carbon neutral strategy.

ENERGY, EMISSIONS AND SUSTAINABLE SOURCES

GREENHOUSE GAS EMISSIONS AND ENERGY USE

Our yearly compliance reporting for NGERS (National Greenhouse and Energy Reporting Scheme) focuses on fuels and gas (Scope 1) and electricity (Scope 2) used on campus sites. The 2019 report reflected:

- Total increase

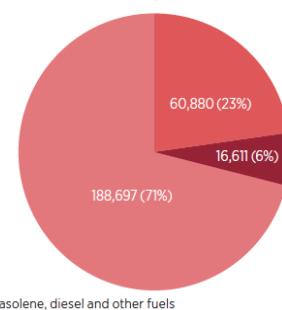


→ Contributing factors identified included student accommodation coming under operational control (8% of total GFA), the first year of operation of Liverpool campus, and the reopening of Westmead campus.

- Total emissions increase



- Energy consumption in Gigajoules (GJ) 2018-2019 Financial year



Impacts of changes in the gross floor area (GFA) across the campus portfolio will be investigated further. Green Star rated CBD vertical campuses such as Parramatta City are clearly more energy efficient.

→ All campuses average almost triple energy consumption (CO₂ equivalent/1000 m² GFA), compared to Parramatta City campus per annum.



TOWARDS CARBON NEUTRALITY

As part of the Sustainable Energy Strategy underway, additional quantified emission sources (Scope 3) include a range of additional supply chain sources, such as waste and business travel. Standard metrics and data collection for these are being identified.

WASTE

- Total waste reduction



- Current recycling rate



→ Diversion is achieved through waste compaction technologies and separation at Materials Recycling Facilities (MRFs).

→ A developing focus is on diversion of food and green waste.

TRAVEL

→ Business travel, employee commuting, and related travel components are being investigated for key metrics and available data.

→ Opportunities for the provision of electric vehicle (EV) charging stations is being investigated.

This information was supplied by Dr Roger Attwater and Mrs Jennylee Green, Environmental Sustainability



Target 9.5: Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

MEANINGFUL CHANGE RESEARCH

“Sustainability underpins healthy urban environments. Collaborative approaches are the foundation of successful research partnerships and provide significant advantages in catalysing industry-relevant research. Collaborative research partnerships are crucial for responding to the urgently needed global transitions to a shared and lasting prosperity as identified in the United Nations Sustainable Development Goals and to mobilise partnerships across universities, local governments, businesses, and civil society.” Professor Juan Francisco Salazar, Environment and Sustainability Research Champion

INSTITUTE OF CULTURE AND SOCIETY: A JUST FUTURE FOR AUSTRALIAN MANUFACTURING

“Our research has found convincing evidence that a successful future is possible for Australian manufacturing when shaped by a culture that maintains a firm’s viability while providing decent jobs in an inclusive society, and producing with a smaller ecological footprint. This manufacturing culture is making a vital contribution to Australia but it is not well-known or publicly visible. Policy must change to strengthen and support this just and sustainable approach.”

Professor Katherine Gibson, Institute for Culture and Society

New research by Western Sydney University and the University of Newcastle has identified examples of a just and sustainable culture of manufacturing in Australia with calls for policy changes to safeguard the sector's future. Manufacturing in Australia must move 'beyond business as usual' to overcome current and future challenges. It is more important than ever to support manufacturers with commitment, integrity, problem-solving capabilities and future orientation.

SCHOOL OF BUILT ENVIRONMENT WITH SCHOOL OF ENGINEERING: HIGH- GRADE CONCRETE FOR LOW LIFE- CYCLE COSTING

“We have developed CO₂ Concrete by injecting carbon dioxide into recycled aggregate for recycled concrete production under specific conditions. A preliminary application of this material has been used in a biosecurity structures needed for the Hawkesbury Farm as a living lab initiative.” Associate Professor Khoa Le

Researchers and students, including Professor Vivian Tam and Associate Professor Khoa Le, have developed a recycled concrete product which is enhanced through pressurised carbon dioxide (CO₂). The pair were winners of the Sustainable Developments, RISE (Research, Innovation, Sustainability, Enterprise) 2019 Awards. Professor Tam was also awarded runner up in the Scopus Researcher of the Year 2019 for Excellence in Research Impacting a Sustainable Future.

INSTITUTE OF CULTURE AND SOCIETY: YOUNG AND RESILIENT RESEARCH CENTRE, STATE OF THE WORLD’S CHILDREN

“Despite progress in the past two decades, one third of children under age 5 are malnourished – stunted, wasted or overweight – while two thirds are at risk of malnutrition and hidden hunger because of the poor quality of their diets. Poor diets have lifelong impacts on their physical growth and brain development. That is why they must be at the heart of our thinking about food systems. If food systems deliver for children, they are delivering for us all.” UNICEF, 2019

UNICEF's 2019 State of the World's Children report focused on child and maternal diet and nutrition. Using a unique, participatory, workshop-based method developed by the Young and Resilient Research Centre, a team led by Professor Amanda Third made a significant contribution to this year's report conducting consultations with adolescents and new mothers in 18 countries, primarily in the Global South. Contributions to the report included expertise from nursing and health were led by Professor Virginia Schmied and Dr Catharine Fleming.



SISTER-HUB: CREATING MEANINGFUL CHANGE FROM WESTERN SYDNEY TO THE WORLD

The Sustainable Transitions Engaged Research Hub (SISTER-Hub) was established in 2019 as a partnerships platform bringing members from across the Greater Sydney region to work together to co-produce new knowledge for sustainability transitions. The SISTER-Hub focuses on three thematic clusters that respond to the SDGs.

→ Urban Climates: Urban heat mitigation and clean air

Improve liveability in climate-ready cities by optimizing strategies and practices to ‘future-proof’ our cities in contexts of extreme climates, with a focus on urban heat mitigation and air pollution reduction.

→ Regenerative Landscapes

Integrate environmental ethics, evidence-based science, urban design, and Indigenous knowledges to protect and enhance urban landscapes, water management, biodiversity hotspots and green/blue corridors across urban and metropolitan rural areas.

→ Planetary Health

Safeguard the health and well being of Western Sydney citizens through good stewardship of the region’s unique natural systems, embracing more sustainable food systems, affordable energy and housing, and acting in more integrative ways to respond effectively to existing and new health challenges.

ENVIRONMENT AND SUSTAINABILITY RESEARCH THEME: COOLING THE SUBURBS

“We know that the urban heat island effect is especially striking in Western Sydney, with an increasing number of hot and very hot days. However, no air temperature data is available for the Campbelltown City Council area as official weather stations can only be found outside the local government area. The heat sensor project allows us to gauge detailed information into the micro climate of the region.” Dr Sebastian Pfautsch, Environment and Sustainability Research Theme Fellow

Researchers launched a heat sensor project to measure the air temperature in 110 locations across Campbelltown LGA. The project uncovered a significant warming trend from forested to urbanised locations. On average, landscapes that were dominated by grey infrastructure were 1.5°C warmer compared to landscapes where grey infrastructure was absent. Although landscapes dominated by hard surfaces heated up slower during the morning, they cooled down less during the night, leading to heat island effects. The research will inform new policies aimed at reducing urban heat.

SPOTLIGHT ON: WATER RESEARCH SYMPOSIUM

Held during Research Week in October, Western hosted a Water Research Symposium led by Associate Professor Sarah Zhang, Environment and Sustainability Research Theme Champion. The symposium developed a dialogue and built partnerships with local government, industry representatives and Western researchers to address the grand challenges of water and discuss industrial opportunities and solution. Greater Sydney Commission’s Mr Rod Simpson gave an invited speech introducing the overall development strategy and opportunities for water industry. Key industry speakers included Sydney Water, WaterNSW, Water Research Australia, CSIRO, Department of Planning, Industry and Environment, M-NEX, Penrith City Council and Aquacell.



50+

multidiscipline academics and researchers are working on various aspect on water stewardship under the Environment and Sustainability Research Theme.

IMPACT AND RESEARCH LOCAL-GLOBAL

SCHOOL OF SCIENCE: ONE MILLION TURTLES COMMUNITY CONSERVATION PROGRAM

One Million Turtles Community Conservation Program is Australia's largest, community-empowered, conservation program. The program is based on Active Wetland Management or Creation. Local communities will lead "expansionary conservation", whereby more than 1 million extra turtles will be released throughout South-Eastern Australia each year. Through crowd-funding, the program has also supported turtle conservation initiatives such as "Turtles in the Classroom" and the creation of protected islands and nesting grounds around local wetlands, urban parks, and constructed wetlands. This project will ensure that our freshwater turtle populations persist into the future.

INSTITUTE OF CULTURE AND SOCIETY: CO-OPERATIVE HOUSING RESEARCH

Housing affordability continues to be an issue in major cities and regional centres. The community housing sector has demonstrated capacity in delivering affordable rental housing at a range of income households. However, providers are realising that there are often no exit strategies for residents looking to transition to home ownership. Households may end up in insecure private rental housing, committing to an unmanageable mortgage, and/or end back up on the provider's waitlist. In this

project, Dr Louise Crabtree, Dr Emma Power and Dr Neil Perry in partnership with University of Newcastle colleagues, considered the social value and economic viability of cooperative housing, the operational costs of cooperatives when carrying out their obligations of regular repairs and maintenance, and the possibilities of diversification. They found in addition to supportive policy and/or public funding, core requirements are a stable asset base, access to appropriate finance, and familiarity and acceptance in the market.

INSTITUTE OF CULTURE AND SOCIETY: SUSTAINABLE CITIES COLLABORATORY

The Sustainable Cities Collaboratory comprises a group of Metropolis cities, together with, globally, a small number of global advisors and relevant research centres. The common goals are research contributing towards developments in urban sustainability, both at a city- level and globally, and leading in the agenda-setting for positive social change. Professor Paul James and Dr Liam Magee from ICS represent Western Sydney in this group. The project will run until December 2020 and aims to develop a set of principles, policies, and guidelines for sustainable urban development. In line with the SDGs and the New Urban Agenda, the work will create a strong voice for successful implementation of principles and tools for sustainable urban development.

SCHOOL OF COMPUTER, DATA AND MATHEMATICAL SCIENCES: RETHINKING APPROACHES TO ACHIEVE SDGS IN AN ERA OF SMART COMPUTING

"Our insights gained from these projects have enabled us to rethink how we can best achieve SDGs in an era of Smart Computing and enabled us to develop a framework to guide such developments. An efficient and effective food production system is the key to achieving the first 3 SDGs." Professor Athula Ginige, School of Computer, Data and Mathematical Sciences

Society is becoming more digitally connected. With this brings the possibility to re-think how to best use advances in ICT for solutions to a very common problem of overproduction and food waste in developing countries with small agricultural land holdings, while contributing to the SDGs. Through mobile-based Smart Computing solution, Professor Athula Ginige, Dr. Ashini Wesumperuma and Associate Professor Bahman Javadi have developed a Digital Agribusiness Ecosystem to address this multi-level coordination failure among key stakeholders of the agriculture domain. This system is now being deployed in India and Sri Lanka and trialled in Timor and Fiji. A modified version of the system to combat "Hidden Hunger" is being trialed in South Africa and Malawi.





Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.



SPOTLIGHT: PROFESSOR BELINDA MEDLYN

"In my role as Georgina Sweet Australian Laureate Fellow I particularly want to foster a discussion around alternative career pathways. I'm hoping that my own experience, of working part-time for ten years while my children were small, then winning a Laureate nine years later will serve as an example and inspiration. I'm also hoping to spread the word to girls and women about the importance of maths and computing in all fields of science. Building women's confidence in the areas of maths and computing is crucial to improving women's representation in science across the board."

Professor Belinda Medlyn from the Hawkesbury Institute for the Environment has been named the 2019 ARC Georgina Sweet Australian Laureate Fellow. Awarded to one female academic in the science, technology, engineering or mathematics disciplines each year, the prestigious Australian Research Council Fellowship scheme supports outstanding Australian and international researchers to build Australia's research capacity, undertake innovative research programs and mentor early career researchers.

Belinda's research focuses on how plants, especially forests, respond to increasing atmospheric carbon dioxide and climate change, with the aim to develop evidence-based models of how ecosystem productivity, water use and species composition will be affected by global change.



SPOTLIGHT: UNITED NATIONS AUSTRALIA ASSOCIATION - GOODWILL AMBASSADOR FOR SDG16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Ms Leanne Smith is an international human rights lawyer who has worked for the Australian Human Rights Commission, in the international NGO sector and as an Australian diplomat with DFAT. She has worked on UN Peacekeeping Operations in Southeast Asia, Africa, the Balkans and Afghanistan, and most recently as Chief of Policy and Best Practices for UN Peacekeeping Operations. As a consequence, she has more than 20 years' experience in policy development and international peace and security. Leanne is currently the Director of the Whitlam Institute at Western.



5 GENDER EQUALITY



Target 5.1: End all forms of discrimination against all women and girls everywhere.



THE UNIVERSITY
IMPACT
RANKINGS
SDG 5 GENDER EQUALITY
TOP 10

GENDER EQUALITY WORLD LEADER

GENDER MATTERS: CHANGING GENDER EQUITY POLICIES AND PRACTICES IN AUSTRALIAN SECONDARY SCHOOLING

Despite widespread concerns about gender-related issues in schools and society, system-wide policies on gender equity have almost disappeared. Research by Associate Professor Susanne Gannon and Professor Kerry Robinson examines the contemporary policy and practice gap in gender equity in schooling, in relation to earlier approaches. It investigates young people's experiences of gender-related issues through the accounts of recent school leavers and current secondary school students, through creative arts-based methods, and the perspectives of teachers and school executive in four diverse secondary schools. Their research aims to interrogate and refresh gendered explanations of inequity and design new approaches for an era of rapid social, cultural and technological change and competing policy agendas.

GLOBAL HEALTH ISSUES REQUIRING LOCAL INTERVENTION

Dr Olayide Ogunsiji from the School of Nursing and Midwifery has spent 12 years researching issues around gender equality, violence and health.

Tackling intimate partner violence through faith-based leaders:

"Migrants and refugees are more vulnerable to intimate partner violence (IPV) due to their pre-arrival traumatic experiences, migration status, acculturation, and (many times) the need to change gender roles. When confronted with IPV they often rely on their faith-based leaders for support."

Collaborative research with faith-based leaders in Western Sydney focused on leaders' awareness and response to IPV. The study found that the leaders were aware of different types of IPV, however, they expressed lack of understanding of the magnitude and identified the need for

training including identification of signs, referral pathways and understanding of Australian law. This project is progressing with a training package that is being developed through financial support from Translational Health Research Institute.

Female genital mutilation:

"Female genital mutilation is a harmful practice of global concern. However, currently the lack of continuity in health care leave these women with minimal outcomes."

In partnership with Midwives in Western Sydney, Circumcised Women in Western Sydney and Primary Health Care Providers in Western Sydney, her study reveals the need for psychological and emotional support for circumcised women. A holistic approach to health care for circumcised women in western countries is the only approach that can yield the recommended and vital care for these women.





"Our goal is to promote and embed a gender-aware and gender-responsive culture that understands gender equality as a core value. That's our commitment." Professor Barney Glover AO, Vice-Chancellor and University President.

PANEL PLEDGE

In 2019 Western Sydney University announced the Western Panel Pledge — a new initiative to promote gender equality by ensuring equal gender balance at conferences and in other public forums. It is a personal commitment that calls on individuals to become signatories and to actively promote gender equality. The University is a proud leader in gender equality, having been recognised in the Times Higher Education Impact Rankings as number one in the world for gender equality, a WGEA Employer of Choice for 14 consecutive years, and the recipient of a SAGE Athena SWAN Bronze Award. The Western Panel Pledge further extends the University's commitment to impact gender equality across the higher education sector and the wider community.

.....
More than 50%
of our students and staff are women

58%
of students starting a first degree are women, of those women **68%** are first in family to study at university

50+
staff signed the Panel Pledge from all across the University

14 years
(consecutively) listed as Workplace Gender Equality Agency Employer of Choice

10 REDUCED INEQUALITIES



Target 10.2: By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.



THE UNIVERSITY
IMPACT
RANKINGS
SDG 10 REDUCED INEQUALITIES
TOP 10

A WORLD LEADING HUB EMPOWERING ALL



Western Sydney University was designated a world hub in 2018 by the United Nations Academic Impact (UNAI) Hub for SDG 10: Reduced Inequalities. The international hub aligns with, supports and contributes to the realisation of SDGs, including the promotion and protection of human rights, access to education, sustainability and conflict resolution.

STRATEGIC RESEARCH INITIATIVES ALIGNED TO SDG 10

In 2019 the University announced investment in two new cross disciplinary research centres to address grand challenges and wicked problems. Transforming Early Education and Child Health (TeEACH), focuses on the converging vulnerabilities faced by many children in the first eight years of life. TeEACH seeks to address these vulnerabilities and ensure that locally, nationally no child should have her or his potential limited by the settings into which they are born and live.

The Young and Resilient Research Centre (YRRC) embrace an integrated mode of research, education, training and enterprise to research and develop technology-based products, services and policies that strengthen the resilience of young people and their communities, enabling them to live well and participate fully in social and economic life. YRRC are currently working with the United Nations to develop a UN General Comment to help states and non-government organisations interpret the Convention for the Rights of the Child for the digital age. To ensure young people's perspectives inform these changes in policy, researchers are coordinating international children's consultations in 26 countries to gather children's insights and experiences, including countries in Africa and the Pacific.

WSU DISABILITY COLLECTIVE: INTERNATIONAL CELEBRATION

"Western has a long and proud history of supporting students and staff with disability to overcome barriers they face and this day highlights recognition for people with disability and their leadership potential for every day thereafter."
Ms Vicky Renier-Clark, Western SRC Disability Representative and Head of the Disability Collective

In December, Western celebrated International Day of Persons with Disabilities. The Disability Collective represents students who identify as having a temporary or permanent disability, medical condition or chronic health conditions. Their aim is to remove discrimination and engage in activities and advocacy that will further develop representation of students with disabilities. They have mapped their activities against the SDGs.

BUSINESS: COMMUNITY TAX CLINIC

The Western Sydney Tax Clinic, run by accounting students under the supervision of academic staff, provides advice and support for unrepresented, low-income or vulnerable taxpayers and small businesses. The program provides practical experience for our students as future tax professionals, while raising awareness of issues in the current Australian tax system.

SUPPORTING PARTICIPATION

This year Western supported over 1,500 students with disability with the launch of a new formal Academic Integration Plan, which includes almost 800 specific support activities or adjustments. One of these activities is the deployment of Sonocent, an assistive technology, to students who have disability that impacts on their note taking skills in class. This has allowed them increased autonomy and freedom to take their own notes. The roll-out has been supported by new Assistive Technology Specialist roles within ITDS, which allows the University to better keep pace with the fast-moving developments in higher education assistive technology and provide students with disability with the latest and most effective technological options.

780

specific support activities or adjustments already made for Western students with disabilities. Western also supports **230** staff with disability with 700 specific workplace adjustments.

WIDENING PARTICIPATION: UNITED VOICES FOR CHANGE CONFERENCE

"As a University with a large refugee and asylum seeker population with students born in more than 180 countries, hosting this conference reflects our commitment to assisting, supporting and encouraging refugee and asylum seeker students. This builds on the work we already do through our mentoring programs, scholarship support and active and engaged refugee student club." Professor Peter Shergold, Chancellor

The United Voices for Change Conference brought over 100 students from refugee and asylum seeker backgrounds together with sector leaders to increase access, retention and the transition to higher education. Held over three days, the conference was a forum for discussion and collaboration to empower students to achieve their educational aspirations. The conference was a collaboration between the Widening Participation Engagement team and the United Voices Student club, together with the Refugee Education Special Interest Group.

CENTRE FOR EDUCATIONAL RESEARCH: REFUGEE YOUTH VOICE - POSTCARDS TO THE PREMIER

The Refugee Youth Voice: Postcards to the Premier Project was led by Dr Karin Mackay in collaboration with Multicultural NSW. The initiative built the capacity of young refugees, NGO's and government agencies to co-design research and policy together to better address the needs of refugee youth. Young people in this research were instrumental in the policy-making processes and reported the research findings directly to the NSW Coordinator General for Refugee Resettlement, the Department of Prime Minister and Cabinet, Social Services and Department of Home Affairs among other high-level government stakeholders. The research found that refugee youth in Metropolitan and Regional NSW experienced compounding challenges that were often taken for granted by those attempting to help them during settlement. Social connectedness and belonging was the number one challenge faced, with access to mental health services and everyday racism also common challenges. Many commented that there was a persistent trauma in everyday experiences like not knowing how to navigate transport, housing, education, and services, and that racism and being misunderstood limited their aspirations. Despite this, many young refugees showed tremendous optimism, strength, and resilience, with a strong message of hope. Young people wanted more opportunities to connect with other young people and to advocate for inclusion in Australian society.

REFUGEE SCHOLARSHIPS

The Western Sydney University Refugee Scholarship was established to provide ongoing support to talented and hardworking students from a refugee or asylum seeker background. Recipients of the Refugee Scholarships embody the spirit of Western Sydney University, overcoming adversity and sometimes harrowing circumstances to access opportunities for themselves and their families through education. The scholarship is funded through the generous donations of staff, students, alumni and friends of the University.





Target 4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

ABORIGINAL AND TORRES STRAIT ISLANDER EDUCATION AND ENGAGEMENT

NEW ASSOCIATE DEAN OF INDIGENOUS EDUCATION

Western Sydney University has appointed an inaugural Associate Dean of Indigenous Education, School of Social Sciences, Ms Corrinne Sullivan. As an Aboriginal scholar from the Wiradjuri Nation in Central-West New South Wales, Ms Sullivan currently works within the School of Social Sciences and Psychology and has published multi-disciplinary research, which broadly focuses on experiences and effects of body and identities in relation to Indigenous Australian people. The appointment of the Associate Dean Indigenous Education is a part of the University's broader Indigenous Strategy, which will be launched in early 2020. The strategy, led by Professor Michelle Trudgett, Pro Vice-Chancellor Aboriginal and Torres Strait Islander Education, Strategy and Consultation, underscores the University's commitment to increase Indigenous employment, education, research and engagement at Western Sydney University

YARRAMUNDI LECTURE

The Yarramundi Lecture series was established over two decades ago out of respect and recognition of the Darug people and has become central to the University's longstanding commitment to its Aboriginal and Torres Strait Islander communities. Western Sydney University hosted the 22nd Yarramundi Lecture in December and this year explored NAIDOC themes 'Voice. Treaty. Truth: Let's work together for a shared future'.

BADANAMI CENTRE FOR INDIGENOUS EDUCATION

The Badanami Centre for Indigenous Education provides a supportive and culturally appropriate learning environment that caters to the needs of our Aboriginal and Torres Strait Islander students. Western has seen a steady increase in the enrolments of Indigenous Australian students, many of whom are the first in their family to attend higher education and actively promotes immersion and mentorship opportunities.

SCHOOLS ENGAGEMENT PROGRAMS

Heartbeat is a program for Aboriginal and Torres Strait Islander students in Year 3 to Year 6. The program raises students' awareness of health issues, inspires students to take up careers in health, medicine and related-sciences and showcases the university as an inclusive place for them. More than 1,300 Aboriginal students from 55 schools in the Blacktown, Campbelltown and Penrith local government areas have participated since its launch in 2010. Each Heartbeat event also involves Western Sydney University Aboriginal or Torres Strait Islander students from relevant degrees in Medicine, Nursing, Health and Sciences. These students act as guides for groups during event days and talk about how they came to study at university. Pathways to Dreaming is another school-based program designed to engage Aboriginal and Torres Strait Islander students in Year 8 to Year 12. Mentored by current Western students these high school students are supported and encouraged to achieve their educational aspirations.

NAIDOC CELEBRATIONS: INTERNATIONAL STUDENT IN LITHGOW

"Sydney is not Australia! That's exactly how I feel that moment. As an international student always taking public transport and seldom go far from Sydney, I could not imagine the real beauty outside of the city. It is just amazing to witness the ancient ways of worship nature passing down for hundreds of years through dancing." International student studying nursing

In a partnership with Mingaan Wiradjuri Aboriginal Corporation, four international students were funded and chaperoned by Sustainable Futures to spend a weekend in Wolgan Valley near Lithgow to attend their annual NAIDOC celebration. These students got a first-hand cultural experience, on country, with local Aboriginal elders. Students participated in a Welcome to Country and smoking ceremony, workshops on dance and weaving, and learnt about Aboriginal history, culture and customs.



POSTGRADUATE SCHOLARSHIPS

Western Sydney University has announced a refreshed scholarship program – including three PhD scholarships valued at \$50,000 per year – to support Aboriginal and Torres Strait Islander students undertaking higher degree research.

Announced during NAIDOC Week – a national celebration of the history, culture and achievements of Aboriginal and Torres Strait Islander peoples – these scholarships are among the largest for Aboriginal and Torres Strait Islander Higher Degree Research students in Australia.

SPOTLIGHT ON: SCHOOL OF EDUCATION

The Bachelor of Education (Primary) Aboriginal and Torres Strait Islander Education is a four-year undergraduate course that gives Australian Aboriginal and/or Torres Strait Islander students the skills and knowledge to teach effectively across the full curriculum range from Kindergarten to Year 6. Students extend their literacy and numeracy skills, as well as developing both curriculum and cultural knowledge and understandings to form a firm foundation for teaching in primary schools. This degree produces graduates who go on to be leaders in education. It is also unique for its engagement with First Nations People in Canada – every year for the past three years we have sent a small group from the B Ed to Canada to gain experience working in remote communities with First Nations people.



Target 17.16: Enhance the global partnership for sustainable development, complemented by multistakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

LEVERAGING GLOBAL NETWORKS RCE-GWS



Regional Centres of Expertise (RCEs) on Education for Sustainable Development are acknowledged by the United Nations University in response to the United Nations Decade of Education for Sustainable Development (DESD 2005- 2014). The global networks revised agenda (2015-2030) is to address the SDGs and post-Global Action Program commitments.

REGIONAL AND GLOBAL PARTNERSHIPS

Hosted by Western Sydney University, RCE Greater Western Sydney (RCE-GWS) is endorsed by the United Nations University Institute for the Advanced Study of Sustainability, with a focus on Education for Sustainable Development and the SDGs. Our partners, who include the region's educational institutions, community groups and local government work together on tackling our region's sustainability challenges. We are 1 of 168 recognised RCEs globally and have strong links with the Asia-Pacific network.

PUBLIC FORUM: RETROSUBURBIA

Hosted by RCE-GWS, permaculture co-Hosted by RCE-GWS, permaculture co-originator David Holmgren shared his Aussie St work with over 150 students, staff and community members and organisations at Hawkesbury campus in August. Through a story-telling narrative David considered localised food production in the suburbs. He explored our evolving history from the quarter acre block hosting the Australian post war dream, through decades of rising affluence and additions, ageing and infill and permaculture inspired retrofit. The presentation was followed by a panel discussion on food security and sustainability, including Western Sydney experts Dr Abby Mellick-Lopes from

the School of Communication Arts and Humanities and Mr Aaron Brocken, local Hawkesbury farmer and entrepreneur.

YOUTH FOR THE GOALS: LEVERAGING GLOBAL NETWORKS FOR LOCAL CHANGE

The SDGs are an urgent call to shift the world onto a more sustainable path. All the 17 SDGs are interconnected. At present, the planet is facing threat of climate change impacts and it's very important how we manage our fragile natural resources, eradicate poverty and foster peace, have inclusive societies so that everyone can contribute in economies to prosper. In short, this is the greatest chance we have to improve life for future generations. My project aimed to reach out to young people and the community initiating discussion on sustainability for ensuring how we act together in fulfilling SDGs. RCE Lucknow youth project leaders, India

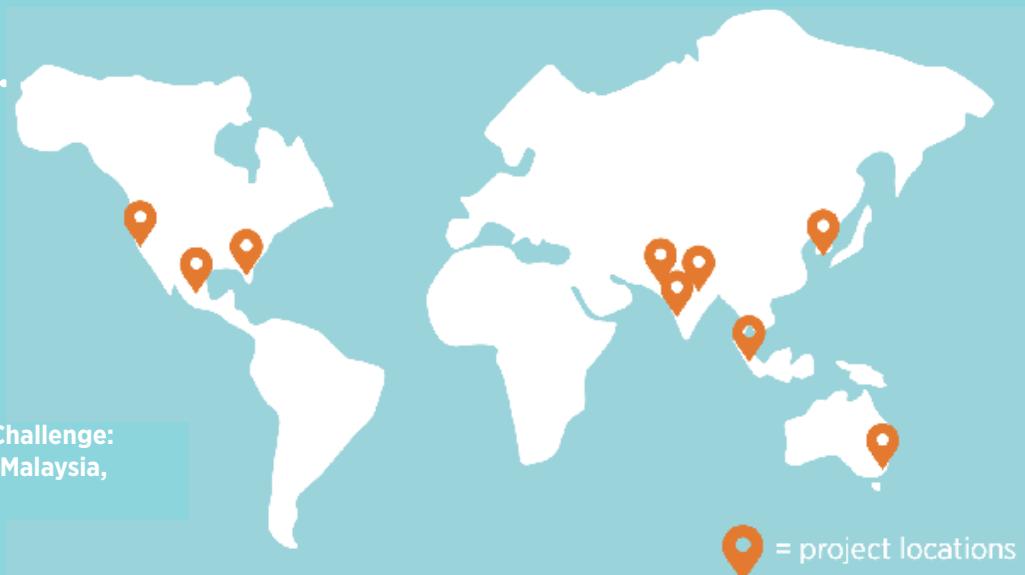
The RCE Asia-Pacific SDG Youth Challenge "Youth for the Goals" is an international, place-based initiative run annually that connects youth leaders working in their own communities to a larger global platform. The aim of the SDG Youth Challenge is to mobilise and motivate youth across the region to get involved and take action. Each project is distinctive yet are all working towards a common goal which unites

them. This year, the focus SDGs were: SDG 1: No Poverty; SDG 6: Clean Water and Sanitation and SDG 10: Reduced Inequalities. In 2019, the Challenge directly engaged with 8,881 people, the majority of which were youth, across 10 individual sustainability projects in Australia, Colombia, India, Malaysia, Mexico and United States. The youth-led projects, which focused heavily on empowerment, inclusion and equality. Projects included training courses on equality and environmental justice, to national inclusive e-sports competitions for disabled youth, to finding solutions and support for migrants living in conflict. This Challenge has a global impact and models how to successfully mobilise existing sustainability networks to engage with youth in a meaningful and empowering way. It takes on the global agenda for sustainable development directly through education and partnerships to localises the goals for each place. The initiative targets youth at all levels of learning and from a wide range of social contexts and cultural backgrounds, to transform education delivery and to develop knowledge, skills, values and behaviours needed for sustainable development. Youth leaders of each project are connected via a weekly virtual mentoring platform run by Mrs Brittany Hardiman from Western, representing RCE-GWS.

2019 CHALLENGE HIGHLIGHTS YOUTH FOR THE GOALS

6

countries represented in the Challenge:
Australia, India, South Korea, Malaysia,
Mexico and United States



10

youth-led sustainability projects addressing
the SDGs

4,773

youth were directly involved and engaged
in the Challenge through youth-led
projects

3,108

non-youth (parents, community
members, teachers, etc) were directly
involved and engaged in the Challenge
through projects



This years Challenge projects focused on SDG 1, 6
and 10

2x Award Finalists

The SDG Youth Challenge was a finalist in the 2019 Okayama ESD Awards and the 2019 Green Gown Awards Australasia



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SUSTAINABILITY CHARTER: OUR FIVE COMMITMENTS

SDG 4, 16	SDG 4, 10	SDG 4, 16	SDG 10, 17	SDG 16, 10, 12
Building Future Leaders We foster and develop future change makers who practice ethical stewardship for the sustainability of the planet. We create a superior learning experience with a focus on global leadership, study tours and skill development opportunities.	Empowering Students We engage and promote our students to actively participate, represent and take action on a world stage. We advance the aims of the SDG's through our programs - Citizen Scholar, Global Leaders, Community Advisors, BALCT Degree, and Access Masterclass.	Targeted Learning Experience We stimulate and encourage critical and creative thinking for better informed outcomes. We engage specialist teachers from Industry, Research, Academia and the Community extending inter-disciplinary and transformative learning experiences.	Partnering with Others We work collaboratively and co-operatively on sustainability challenges in order to build community, participating locally and globally and putting students forward to succeed. Collaborative practices are central to achieving a sustainable future for all.	Responsible & Resilient We build a culture and identity based on equality, inclusion and good governance by creating valuable opportunities for members at minimal fee. We practice responsible resource management of budget, consumption, procurement decisions and product choices.

FUTURE CHALLENGES LOOKING AHEAD

“At the time of writing the global Coronavirus pandemic and its impacts continue to play out across the world. The consequences of COVID-19 will have reverberations across all levels of society, the economy and the environment and will have long lasting impacts on our education systems in ways that are still unfolding. Sustainable Futures acknowledges that our world is constantly changing and through the 21C project we have been preparing for a disrupted future of work and society. We contend that resilience and sustainability planning and thinking is more vital than ever as we move forward into a new post-Covid reality. The interconnections of the SDGs and the importance of reituating society and the economy within a healthy biosphere as a platform for just and equitable social transformation is a commitment we are passionate about. We reiterate the VC’s foreword: we have significant human and intellectual resources to address these complex, unpredictable and multidimensional sustainability issues. We look forward to continuing to collaborate with students and colleagues across Western Sydney and beyond.”

Ms Jen Dollin, Senior Manager

Mrs Brittany Hardiman, Sustainability Project Officer

Mrs Helen Angelakis, Sustainability Coordinator

Sustainable Futures, Office of the PVC Learning Futures



The SDGs ‘wedding cake’ situate the economy and our societies within the limits of the biosphere, in alignment to the SDGs. It was developed by the Stockholm Resilience Centre in 2016

“The Sustainable Development Goals elegantly capture humanity’s shared aspirations, but it is at the national level where the rubber hits the road. Progress is possible across multiple goals but challenges to comprehensive achievement remain. The human condition has substantively improved over past centuries alongside a burgeoning global human population, with increased life expectancy and education, and reduced child mortality, hunger and poverty. However, this progress has come largely at the expense of vast resource use and environmental degradation, including disruption of the global climate. With tensions between development and environment, and complex trade-offs inherent in the SDGs, achieving all these goals at once is profoundly challenging.”

(Bryan, Hadjikakou and Moallemi, 2019)

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