

United Nations Sustainable Development Goals

2022 Macquarie University Alignment





Macquarie University Alignment: UN 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. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership.

They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

Macquarie University contributions to the UN Sustainable Development Goals

“Macquarie University adheres firmly to our commitment to the principles of sustainability in all we do” [Our University: A Framing of Futures, 2013](#) .

Priority 6

Developing a vibrant and sustainable campus, clearly at the centre of a rapidly changing neighbourhood in the international, cosmopolitan city of Sydney

This commitment includes:

- 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;
- Actively seeking to meet changing social, environmental and economic conditions and reduce the negative impact of our actions upon our environment and society;
- The responsible consumption of energy, water, food, products and transport;
- Actively supporting sustainability in our local community and region;
- Having a reputation for being the place to learn, to work and to connect with the local and global community.

The focus at Macquarie University is to seek to understand the impact of our actions and activities and make informed decisions around good sustainable practices.

Operations (Energy, Water, Waste)

Macquarie University focuses its efforts on resource efficiency – using less, not creating more, whilst maintaining and enhancing the functional requirements and occupant experience. The focus is being efficient in what we use, whilst not overburdening the campus with infrastructure to create a resource we don't require.



In 2020, the University entered into a new Energy Supply agreement with [Red Energy](#) - a 100 per cent renewable electricity source. With the Red Energy contract for the larger electricity accounts, the majority of the University's electricity consumption in FY2021 was supplied by renewable electricity. In addition, the small market electricity accounts were rolled into a single energy account with Shell Energy to supply green electricity from April 2021.

As a result, the University's total carbon emissions from electricity (Scope 2 emissions) have been reduced by 95%. For FY2021, overall emissions from Scope 1 and Scope 2 have been reduced by 89% - see [Sustainability Target Tracking Report](#). This is significantly more than our original 2030 target of a 40% reduction and continues to move us towards a [carbon neutral](#) position.

The Built and Physical Environment

The core principles underpinning Macquarie University's Ecologically Sustainable Design are imbedded in the [Campus Masterplan](#), [Design Excellence Strategy and Urban Design Guidelines](#) and flow through into Design Briefs, Consultancy Agreements, Building Contracts and Maintenance Agreements.



Ecologically Sustainable Design – [The Incubator](#) is a recipient of multiple local and international awards for Architecture, Good Design and Sustainability.

The [Lincoln Building](#) has been awarded a 5 Star Green Star Rating (Design and As Built) by the Green Building Council of Australia (GBCA). Major refurbishments were made to three levels of workplace accommodation in the 50-year-old building. The new façade has highlighted and respected the striking original design and opened the building up to increased natural light.

The [Ainsworth Building](#), housing the Faculty of Medicine and Health Sciences has received the 2021 Award for Educational Architecture by the Australian Institute of Architects. Aside from the timber structure, other sustainable elements are the photovoltaic cells on the roof to assist with powering the building. Low emissivity (Low-E) glass has also been used to reduce solar heat gain into the building.



Learning, Teaching and Research

In seeking to contribute to the [United Nations Sustainable Development Goals \(2015-2030\)](#), Macquarie University seeks to align its core activities of Learning, Teaching and Research to the SDGs.

Macquarie University is committed to embedding sustainability into every program we teach to ensure our students are equipped to meet the expectations of business, and deal with the complexities and challenges of today's society.

[Learning and Teaching Strategic Framework 2020–2024](#), Objective 1. A distinctive Macquarie University pedagogy that:

- 1.2. nurtures and encourages students' appreciation of Indigenous knowledge, respect for diversity and global perspectives and commitment to ethical behaviour and sustainable practices

Students can enrol in qualifications and specific units that align with the SDGs. Students also get the opportunity to participate in a range of programs and activities that enable them to engage with the SDGs.






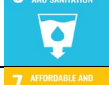










All Bachelor degrees include at least one [PACE](#) (Professional and Community Engagement) unit. Students get to engage in a practical learning activity where they explore key economic, social, and ethical challenges, and learn about how contemporary organisations address them.

Macquarie University's [Global Leadership Program](#) (GLP) is a co-curricular program that can be taken alongside any course at MQ. The GLP Colloquium Series includes a range of topics such as ['The UN Sustainable Development Goals and You'](#).

Students and academics can choose to participate in ENACTUS - an international non-profit organisation. [ENACTUS Macquarie](#) enables like-minded students to unite in their mission for social change and inspire fellow university students to improve the world through [student-led enterprises](#).

[Macquarie University Sustainability Society](#) (MUSS) is another opportunity for students to get engaged in sustainability projects and events.

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, a total of **8355** research publications by Macquarie University staff had some focus on Sustainable Development Goals 1 to 16. Further, as a result of research collaborations, several publications were co-authored with institutions in other countries/regions. The data is presented in the following table.

	UN Sustainable Development Goals	2016 – 2021 Publications Scholarly Output	International Publications Publications co-authored with Institutions in other countries /regions
	SDG 1: No Poverty	141	46.8%
	SDG 2: Zero Hunger	158	58.9%
	SDG 3: Good Health and Well-Being	2099	51.8%
	SDG 4: Quality Education	591	36.3%
	SDG 5: Gender Equality	243	32.1%
	SDG 6: Clean Water and Sanitation	265	60.8%
	SDG 7: Affordable and Clean Energy	676	53.0%
	SDG 8: Decent Work and Economic Growth	357	49.0%
	SDG 9: Industry, Innovation and Infrastructure	456	51.8%
	SDG 10: Reduced Inequalities	414	39.4%
	SDG 11: Sustainable Cities and Communities	415	52.0%
	SDG 12: Responsible Consumption and Production	283	53.4%
	SDG 13 Climate Action	579	58.2%
	SDG 14: Life Below Water	646	61.9%
	SDG 15: Life on Land	603	57.2%
	SDG 16: Peace, Justice and Strong Institutions	429	32.4%
	Total	8355	



What MQU is doing

The UN SDGs were released in 2015 with the aim of [SDG1](#) being to end poverty in all forms by 2030. Citizens in certain parts of the world are more vulnerable to poverty; however, the socio-economic impact of COVID 19 has seen poverty levels increase globally.

MQ initiatives to support SDG1 include targeted financial support for students through the [Student Success Support Package](#) which have included food hampers and student loans and grants.

MQ's [Community Volunteering](#) enables staff to take time off to volunteer in various community organisations that address a range of issues including poverty.

Through the [PACE](#) (Professional and Community Engagement) program students, working with a range of community partners, get to work on a range of projects. For example, MQ students have participated in a PACE project with the Cambodian Organization for Children and Development (COCD) where they have evaluated and redesigned COCD's core programs relating to root causes of poverty.

Students also get the opportunity to travel abroad and work with partner organisations through PACE International. See [student's trip to Vietnam](#) in 2018/2019 to work with PACE International's partner, Blue Dragon Children's Foundation. Student's produced resources to support the crisis care, education, rehabilitation, and prevention services that BDCF provides to children impacted by homelessness, rural poverty, and human trafficking.

Curriculum

MQ offers a [Bachelor of Arts with Major in Social Justice](#)

Examples of units that include a focus on 'poverty':

[ANTH3023 Development Studies: Global Economic Inequality, International Aid and Human Rights](#)

[ECON8057 Economic Development](#)

[GEOP1010 Introducing Human Geography](#)

[GEOP2020 Geographies of Violence: Bodies, Spaces and Power](#)

[SOCX2040 Economic Life, Inequality and Society](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 141 research publications by MQ staff that had some focus on SDG1 No Poverty. 46.8% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

The UN acknowledges that we are not on track to achieve [SDG2](#) Zero Hunger by 2030. Statistics show the number of people who suffer from hunger is increasing, compounded by the impact of COVID 19.

MQ's [Applied Biosciences](#) researchers are working in partnership with other organisations to develop novel solutions and affect transformational change in major biological challenges to the environment, food production and health.

MQ students have cofounded a social enterprise - [Benevolence Financial Group](#) – based at the Macquarie University Incubator. They offer high-quality financial services at no cost to their customers and invest in social impact projects fighting inequality in Australia and globally.

MQ's [Student Success Support Package](#) also includes food vouchers for students. To provide continued support, MQ has partnered with [Oz Harvest](#) to provide free food relief hampers for international students.

Curriculum

Examples of units that include a focus on 'hunger':

[ANTH2003 Food Across Cultures](#)

[HSYP8008 Global Nutrition and Food Security](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 158 research publications by MQ staff that had some focus on SDG2 Zero Hunger. 58.9% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

The vital link between ensuring healthy lives and promoting well-being at all ages, to achieving sustainable development is emphasised in [SDG3](#).

MQ offers a range of wellbeing services that are available to students at any time during their studies - <https://students.mq.edu.au/support/wellbeing>. Through Enactus Macquarie, students get to participate in [Peer Link](#) – a program that supports the mental and personal growth of university students. MQ is committed to creating a happy and healthy workplace that values inclusivity and work-life balance. Several wellbeing services are offered to staff - <https://staff.mq.edu.au/work/wellbeing>. A range of [webinars](#) and [resources](#) are offered.

COVID-19 introduced unique challenges into our lives and workplaces. [Tips and resources](#) for managing stress and regular communication from University Executive exemplifies the importance given to staff and student health and well-being.

MQ staff are also engaged with the community. See submission to the Royal Commission into Aged Care Quality and Safety - [Power to the people: Improving residential aged care quality through better consumer choice](#). The [Centre for Emotional Health](#) conducts research to further the understanding of emotional disorders and improving treatment, across the lifespan.

Curriculum

MQ offers a:

[Master of Public Health](#)

[Bachelor of Human Sciences with a Major in Public Health: Policy and Promotion](#)

Examples of units that include a focus on 'health and well-being':

[ANTH3022 Gender, Sexuality and Global Health](#)

[ECHE1300 Health and Wellbeing](#)

[ANTH8016 Culture, Health and Disease](#)

[ANTH1006 Drugs Across Cultures](#)

[ANTH8032 Global Health](#)

[HSYP8103 Health Law and Economics](#)

[HSYP8104 Disease Prevention and Health Promotion](#)

[EDUC8210 Disability Equity Education](#)

[GEOP8020 Healthy Places: Planning for Diversity, Equity and Wellbeing](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 2099 research publications by MQ staff that had some focus on SDG3 Good Health and Well-being. 51.8% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG4](#) is about access to quality education and how critical it is to sustainable development, and to allow people to address challenges and improve their quality of life.

MQ contributes to inclusive and equitable education by offering support to students through [scholarships](#) and other support – see [Aboriginal & Torres Strait Islander Entry Pathway](#).

[MQ Alumni](#) - Joshua Ross – has co-founded Humanitix – a not for profit that is on a mission to close the education gap by directing money to education programs.

[Walanga Muru](#), MQ's Indigenous Office partners with high schools and the community to ensure Aboriginal and Torres Strait Islander students receive the preparation they need to succeed at school, develop their cultural identity, and have the resilience to overcome life's challenges and emerge as one of tomorrow's leaders.

MQ's [LEAP UP](#) Refugee Mentoring program matches high school students from refugee backgrounds (mentees) with MQ student volunteers (mentors). Through mentoring, mentees are supported with their investigations of, and successful transition into higher education.

MQ's [Global Leadership Program](#) (GLP) is a co-curricular program that can be taken alongside any course at MQ. The focus is on cross-cultural understanding, leadership, international issues, innovation, and entrepreneurship. The GLP gives students the knowledge, skills and networks they will need to advance in their professional and personal lives.

Students participating in [ENACTUS Macquarie](#), have been working on a student-led enterprise called [Nhuubala Yugal Education Centre](#). The Centre offers an alternative learning environment for students who are disengaged from the school system. The Centre disrupts the traditional model of curriculum delivery and behavioural management to increase student engagement and learning.

Curriculum

MQ offers a range of qualifications in [Education](#), including:

[Master of Inclusive and Special Education](#)

[Master of Education](#)

[Master of Indigenous Education](#)

[Bachelor of Arts and Bachelor of Education \(Primary\)](#)

[Bachelor of Arts and Bachelor of Education \(Secondary\)](#)

[Bachelor of Science and Bachelor of Education \(Secondary\)](#)

[Bachelor of Commerce and Bachelor of Education \(Secondary\)](#)

[Bachelor of Teaching \(Early Childhood Education\)](#)

Examples of units that include a focus on 'education':

[ECHE3260 Working with Families, Communities and Other Professionals in Education Settings](#)

[EDST8201 Indigenous Education: Strategies and Research](#)

[INED8040 Global Indigenous Education](#)

[EDST3170 Indigenous Education](#)

[EDUC3830 Education in a Global Society](#)

[EDST8210 Teaching Quality Health and Physical Education in Primary Schools](#)

[ECHE3330 Inclusive Education](#)

[EDUC8210 Disability Equity Education](#)

[INED8050 Trauma Informed Education](#)

[TRAN8087 Auslan Interpreting in Educational Settings](#)

[EDSX8301 Inclusive and Special Education](#)

[ROOO125 Education: Blindness/Low Vision](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 591 research publications by MQ staff that had some focus on SDG4 Quality Education. 36.3% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG5](#) highlights why enhancing gender equity is fundamental to sustainable development. Female participation in addressing challenges and promoting solutions to global issues must be increased.

Macquarie University launched its first Workplace Gender Equity Strategy on International Women's Day 2017, setting out an ambitious action plan for real and sustainable change towards gender equity, diversity and inclusion. [Towards Gender Equity 2.0](#) (2019-2021) strategy details MQ's gender equity priorities, progress to date and future plans. MQ has been celebrating Gender Equity Week since 2018 – see [Gender Equity Week program](#)

MQ is now a recognised WEGA Employer of Choice. See [Public Report](#) (2019-2020) submitted to Australian Government Workplace Gender Equality Agency. In 2019, MQ was awarded [SAGE Athena SWAN Bronze](#) accreditation in recognition of action taken to address gender inequity in Science, Technology, Engineering, Mathematics and Medicine (STEMM) disciplines and achieve tangible outcomes across the University.

MQ has been recognised as an [Employer of Choice for Gender Equality](#) (EOCGE) by the Workplace Gender Equality Agency (WGEA), for its progress towards gender equity.

MQ PACE International students work with [Empower Pacific](#) a Fijian NGO, on a range of projects including conducting research on community awareness sessions in Fiji for violence against women, sexual and gender-based violence and child abuse campaigns

Curriculum

MQ offers a:

[Bachelor of Arts with a Major in Gender Studies](#)

Examples of units that include a focus on 'gender':

[TOOO263 Gender Studies](#)

[GEND1020 Gender and Power](#)

[GEND3010 Gender, Crime and Violence](#)

[GEND1000 Freedom Dreams: Foundations in Gender Studies](#)

[ANTH3022 Gender, Sexuality and Global Health](#)

[SOC13040 Human Services in the 21st Century: Care, Gender and Institutions](#)

[POIR2010 Contemporary Issues in Australian Politics: Race, Nation, Class and Gender](#)

[AHIX3201 Women and Gender in the Ancient World](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 243 research publications by MQ staff that had some focus on SDG5 Gender Equality. 32.1% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG6](#) is about ensuring access to clean water and sanitation for all.

MQ Lecturer, Roger Moser, worked with colleagues from other international institutions on research projects that looked at [Providing Clean Drinking Water through an Access-Based Solution in India](#)

In 2016 [Macquarie University environmentalist scientist](#), Professor Mark Taylor found that poisonous lead may be leaching from brass fittings into our drinking water. Professor Taylor found more than half of tap water samples taken from households in NSW to contain lead. Citing the likelihood of significant health impacts, he recommended changes to taps and other plumbing. In 2021, the Australian Building Codes Boards released a new draft National Construction Code, with a key change to the allowable amount of lead from fittings - reducing it from the current 6 per cent to 0.25 per cent.

Curriculum

Examples of units that include a focus on 'water and sanitation':

[CIVL6101 Water and Wastewater Engineering](#)

[ENVS8205 Environmental Pollution](#)

[ENVS819 Environmental Health](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 265 research publications by MQ staff that had some focus on SDG6 Clean Water and Sanitation. 60.8% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG7](#) focuses on ensuring access to affordable, reliable, sustainable, and modern energy.

In 2020, MQ entered into a new Energy Supply agreement with [Red Energy](#) - a 100 per cent renewable electricity source. With the Red Energy contract for the larger electricity accounts, most of the University's electricity consumption is now supplied by renewable electricity. In April 2021, the small market electricity accounts were rolled into a single energy account with Shell Energy to supply green electricity. As a result, the University's total carbon emissions from electricity (Scope 2 emissions) have been reduced by 95%.

MQ has [secured grants](#) in the 2020 round of [Australian Renewable Energy Agency](#) funding to help address solar photovoltaic (PV) panel efficiency, overall cost reductions and end-of-life issues. Researchers are exploring various forms of energy. See Dr Kerstin Petroll pitch [HydGENE Renewables](#) designer microbes that can produce hydrogen gas from feedstock on site and on demand.

The [Sustainable Energy Research Centre](#) (MQ SERC) is a multidisciplinary team of research experts in renewable energy across photovoltaics materials and devices, hydrogen production, application and safe storage, grid integration and energy economics. Through work on collaborative projects members of MQ SERC demonstrate commitment to work with industry, government, and other researchers to deliver innovative solutions and technologies to drive the renewable energy transition. Projects include Biological Hydrogen Productions.

As part of a Capstone unit, students in the Bachelor of Commerce and Bachelor of Science degree work on projects aligned to SDG 7. For example, a project focussed on aiding in the education and [utilization of clean and affordable energy](#). The project was to create an applet designed to educate users of their energy usage and inform them of the current eco-friendly alternatives. Another project was aimed at [utilising solar farms](#) in the Australian desert.

Curriculum

Examples of units that include a focus on 'energy':

[MECH4002 Energy Sustainable Design](#)

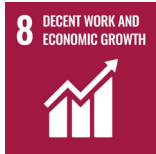
[ENVS2115 Climate Change, Energy and our Future](#)

[LAWS5069 Energy and Natural Resources Law](#)

[CIVL3101 Hydraulics and Hydrology](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 676 research publications by MQ staff that had some focus on SDG7 Affordable and Clean Energy. 53% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG8](#) is about promoting inclusive and sustainable economic growth, employment, and decent work for all.

MQ's [Centre for Workforce Futures](#) is a collaborative cross-disciplinary hub whose members draw on past and present knowledge to undertake holistic research and thought leadership with partners in government, industry and not-for-profit (NFP) organisations to address current and future economic, social and policy challenges relating to the organisation of work, working people, work organisation and employment. The Centre's key focus is on facilitating research that enhances understanding, policy, and practice to support the achievement of 'Decent Work' as defined by the United Nations and the International Labor.

[ReWOMEN](#) is a joint venture between the [Centre for Workforce Futures](#), Macquarie Business School and the [Institute of the Humanities at Northumbria University \(Newcastle, UK\)](#) ReWOMEN connects scholars across business schools and humanities departments with stakeholders and policy makers to share key findings across four centuries of women's management and enterprise activities.

Students participating in [ENACTUS Macquarie](#) have been working on a student-led enterprise called [Women's Creative Hub](#). The Hub empowers refugee women to make products out of recycled material, which they then sell at markets to generate an income for themselves. Enactus Macquarie is helping the women with their business models to ensure that they can create a sustainable business

Curriculum

Examples of units that include a focus on 'work and economic growth':

[ECON8057 Economic Development](#)

[ECON8017 Ecological Economics](#)

[SOCI3080 Economic Futures: Work, Inequality and Power](#)

[MGMT3051 Management Ethics and Social Responsibility](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 357 research publications by MQ staff that had some focus on SDG8 Decent Work and Economic Growth. 49% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG9](#) is about building resilient infrastructure, promoting sustainable industrialization, and fostering innovation.

MQ's [Incubator](#) provides an environment for students, researchers, staff and the broader start-ups and intrapreneur community to explore, develop and scale their ideas, with infinite potential for real-world impact. The Incubator also hosts a range of webinars – see [Macquarie University Incubator – YouTube](#)

[Venture Café Sydney](#), a member of the Venture Café Global network, with the goal of building an innovation community, is championed by Macquarie University.

The [Australian Institute of Health Innovation](#) (AIHI) is a research-intensive institute located at MQ and conducts world-class research to catalyse performance improvement in healthcare services and systems in Australia and internationally.

As part of a Capstone unit, students in the Bachelor of Commerce and Bachelor of Science degree work on projects aligned to SDG 9. For example, students worked on a project aimed at assisting farmers by protecting their farms from invasive insects through the use of [drones and DNA technology](#).

Curriculum

Examples of units that include a focus on 'innovation' and 'infrastructure':

[FOSE8020 Entrepreneurship and Innovation in Science and Technology](#)

[MGMT3904 Creativity and Innovation](#)

[HSYP8106 Innovation in Leadership, Teamwork and Advocacy](#)

[MMCC8030 Creative Entrepreneurship](#)

[GEOP3030 Liveable Cities: Infrastructure, Mobilities and Place-Making](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 456 research publications by MQ staff that had some focus on SDG9 Industry, Innovation and Infrastructure. 51.8% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG10](#) considers reducing inequalities and ensuring that no one is left behind as integral to achieving the Sustainable Development Goals.

Through MQ's [PACE International](#) program students got the opportunity to work with the [Blue Dragon Children's Foundation](#) in Vietnam. The Foundation's services are holistic; including rescue and crisis care for young people in immediate danger, shelter, legal advocacy, and long-term support to return to school and training.

The [ENACTUS Macquarie](#), student-led enterprise [Nhuubala Yugal Education Centre](#) is working with the Nhuubala Yugal Education Centre (Australia) to empower rural youth through community, culture and connection.

MQ is committed to being a campus where Aboriginal and Torres Strait Islander culture is respected and celebrated. In partnership with the Indigenous community, a number of [strategies and initiatives](#) have been developed to provide the foundation for Aboriginal and Torres Strait Islander education at MQ.

MQ, through the Widening Participation Unit, holds [LEAP Roadshows and InRoads](#) to engage students and families from low Socio Economic backgrounds by bringing a taste of university to regional areas.

Curriculum

Examples of units that include a focus on 'inequality':

[SOCI3080 Economic Futures: Work, Inequality and Power](#)

[SOCI3070 Social Inequality](#)

[SOCI2040 Economic Life, Inequality and Society](#)

[GEOP3000 Environmental Justice in the Anthropocene](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 414 research publications by MQ staff that had some focus on SDG10 Reduced Inequality. 39.4% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG11](#) is about making cities inclusive, safe, resilient, and sustainable.

In 2020, MQ was chosen as the [core research partner](#) for SmartCrete CRC (Cooperative Research Centre), an industry led collaborative research partnership focused on delivering breakthrough advancements in the cement and concrete product market.

MQ Geography students have designed a [waste management](#) plan at the Yanama Budyari Yarramundi Gumada Caring-as-Country Culture Camps at the Yellomundee Regional Park.

MQ Law Schools led the [Bright Sparks Program](#) in partnership with Ku-ring-gai Council which aimed to empower high school students to have their voices heard on issues of climate change and sustainability. Students from one of the participating schools (Normanhurst Boys High School) focussed on SDG11 and [“devised a plan for future Sydney housing that addressed the ecological footprint of humans.”](#)

[MQ staff](#) worked with the Salvation Army to produce the film [Losing Ground, Holding Place](#). The film is about how a social housing estate became a home for its residents – a place of safety, refuge, recognition and shared belonging that made it a successful account of place-making. The [Connection on the Move](#) research collaboration is exploring the varied forms of connection with place and the related benefits to improve decision-making processes in the design of sustainable and liveable cities.

Curriculum

MQ offers a [Master of Sustainable Development](#).

Examples of units that include a focus on ‘sustainable cities and communities’:

[ENVS8205 Environmental Pollution](#)

[ENVS3102 Urban Climate and Air Quality](#)

[ENVS8229 Sustainable Cities](#)

[ENVS8527 Engaging Society with Sustainable Development](#)

[ENVS6237 Natural Hazards, Disasters and their Management](#)

[ENVS8418 Environmental Planning](#)

[GEOP1080 Urban Planet: Cities and Planning in the Anthropocene](#)

[GEOP3030 Liveable Cities: Infrastructure, Mobilities and Place-Making](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 415 research publications by MQU staff that had some focus on SDG11 Sustainable Cities and Communities. 52% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG12](#) is about ensuring sustainable consumption and production patterns.

The Start-up Program at MQ Incubator has enabled Anne Thompson to establish [Sustainable Schoolwear](#), focussed on the principles of the circular economy, and working to embed sustainability in the everyday, creating durable, affordable, ethically produced school wear options that are healthy for kids and the planet.

The [Centre for Corporate Sustainability and Environmental Finance](#) at MQ is involved in a range of projects including; Environmental, Social, Governance Investing, Uptake of Clean Technology, Adaptation and Resilience and Regulatory Change.

Curriculum

Examples of units that include a focus on 'sustainable development and environmental pollution':

[ENVS8527 Engaging Society with Sustainable Development](#)

[ENVS8205 Environmental Pollution](#)

[LAWS8055 Environmental Law and Sustainable Development](#)

[GEOP6050 Environment and Society](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 283 research publications by MQ staff that had some focus on SDG12 Responsible Consumption and Production. 53.4% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG13](#) is about taking action to combat climate change and its impacts.

MQ's [Professor Lesley Hughes](#) is a Lead or contributing author to a number of publications by the [Climate Council of Australia](#). She was recently given the Tertiary Educator of the Year Award and Overall 2020 NSW Environmental Educator of the Year Award by the [Australian Association for Environmental Educators](#) (New South Wales Chapter). Here is Professor Hughes on [ABC News Breakfast](#) detailing the latest on climate impacts on the Great Barrier Reef.

MQ researchers in the [Blue Carbon Horizons team](#) have demonstrated that coastal wetlands substantially increase their carbon sequestration as sea levels rise, providing a counterbalance to global warming. Their research was awarded the [2019 Eureka Prize for Environmental Science](#).

Researchers from MQ and Western Sydney University working on the *Which Plant Where Project* have looked at whether the tree species that characterise our urban landscapes will be resilient to climate change projected for the next 50 years – see [‘Hedging against climate change’](#)

Staff and students have many opportunities to increase their awareness about the impact of climate change. At the 2020 forum - MQ Women Shaping the Future - Han Yi presented on [‘Will climate change kill you?’](#)

Curriculum

Examples of units that include a focus on ‘climate change’:

[ENVS6115 Climate Change, Energy and our Future](#)

[ENVS8104 Climate Change and Adaptation](#)

[LAWS8051 Climate Change Law](#)

[ENVS6116 The Atmospheric Environment](#)

[ENVS8104 Climate Change and Adaptation](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 579 research publications by MQ staff that had some focus on SDG13 Climate Action. 58.2% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG14](#) focusses on the conservation and sustainable use of oceans, seas and aquatic resources.

MQ has a [Seawater Facility](#) which supports academic research and undergraduate teaching in environmental and life sciences. Current research include *ocean change, ecology and conservation, impacts of climate change on sea urchin adhesions and oxygen consumption, etc.*

MQ Researchers, through the [Macquarie University Marine Research Centre](#) are currently involved in a range of research projects including '*Estuarine forests: the rising frontier of coastal carbon*', '*Mining the deep oceans: Ensuring compliance with international obligations*'. MQ researchers have been awarded [grants](#) under the Australian Research Council Linkage Project scheme to explore innovative ways to protect and manage coastal floodplains of northern Australia from feral animals and rising sea levels.

MQ's Dr Scott Wilson is the Research Director of [AUSMAP](#) (Australian Microplastic Assessment Project). AUSMAP's work involves documenting and analysing microplastic pollution in Australian aquatic environments. Project Leaders, MQ and the Total Environment Centre, work with a consortium of research, environment, education, government, and sustainable business organisations.

The Department of Earth and Environmental Sciences is involved in researching and distributing policy-relevant science, critical in helping to prioritise marine areas for [biodiversity conservation](#) and marine spatial planning in the Western Indian Ocean Region (WIO). Through [CAPSTAN](#) (Collaborative Australian Postgraduate Sea Training Alliance Network), MQ Post Graduate students have participated in marine science education on board Australia's state-of-the-art research vessel, the RV *Investigator*.

Curriculum

MQ offers a [Bachelor of Marine Science](#).

Examples of units that include a focus on 'ocean and marine life':

[EESC2160 Climate and Oceans](#)

[BIOL8770 Topics in Australian Marine Science](#)

[GEOS2130 Marine Sediments: Records of Past Earth](#)

[EESC2160 Climate and Oceans](#)

[ENVS3439 Geomorphic Analysis of Rivers and Wetlands for Conservation and Management](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 646 research publications by MQ staff that had some focus on SDG14 Life Below Water. 61.9% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG15](#) is about sustainably managing forests, combating desertification, halting, and reversing land degradation and halting biodiversity loss.

MQ has a [Fauna Park](#) on campus. Its main purpose is to provide staff and students with facilities for animal-based research, particularly in animal behaviour. MQ also has a modern and highly sophisticated [plant growth facility](#) with glasshouses and growth cabinets. It has the capacity for a wide range of research projects and is used for undergraduate and postgraduate teaching in biology, while also supporting national and international collaborative research.

MQ is a member of the NSW Government Adaptation Research Hub, established to leverage NSW's collective, and multidisciplinary, science capacities to produce relevant and practical research to directly inform the decision making of NSW agencies and communities. The [Biodiversity Node](#) is led by Macquarie University, in collaboration with CSIRO, Taronga Zoo and the Royal Botanic Gardens. They are involved in several projects around [ecological data and information](#), [weeds, pathogens and disease](#), [managing changing landscapes](#), [aquatic and coastal biodiversity](#), [cultural heritage and biodiversity](#).

MQ [Arboretum](#) comprises all the trees and shrubs on campus and provides habitat for many native birds and animals. The Arboretum is used by staff and students for learning, teaching and research. [Campus walks](#) are hosted to provide an opportunity for staff to connect with the natural environment.

MQ researchers from the Department of Earth and Environmental Sciences, engage with collaborators and communities widely across Australia, southern Africa, the Americas and Europe to understand why [wetlands](#) are so important, how they function, and what threatens them.

Curriculum

MQ offers a:

[Bachelor of Biodiversity and Conservation](#)

Examples of units that include a focus on 'life on land and biodiversity':

[BIOL3420 Biodiversity and Conservation](#)

[ENVS3439 Geomorphic Analysis of Rivers and Wetlands for Conservation and Management](#)

[BIOL8760 Climate Change Biology: Impacts and Adaptation](#)

[BIOL8870 Regional and Global Conservation](#)

[IOL8610 Conservation and Management of Wild Populations](#)

[ENVS1017 The Living Environment](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 603 research publications by MQ staff that had some focus on SDG15 Life on Land. 57.29% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG16](#) aims to promote just, peaceful, and inclusive societies.

MQ's [Social Justice Clinic](#) (SJC), set up under the MQ Law School, provides much-needed help to some of Australia's most vulnerable people and communities. SJC's innovative model offers students hands-on legal experience under the supervision of experienced human rights and public interest lawyers, providing a powerful learning opportunity for students. An example a project students have been involved in is [Copwatch](#). Inspired by projects in the US, Copwatch empowers Aboriginal people to use mobile phones to document instances of police harassment and violence.

An MQ PACE International student got the opportunity to be placed as an intern with the Centre for Migrant Advocacy (CMA) in the Philippines. CMA is an advocacy group that promotes the rights of overseas Filipinos, both land or sea-based migrant workers and Filipino immigrants – and their families. Here is the [student's](#) account of his experience.

Restless Development is an international non-government organisation that has a global vision of 'Young people taking a leadership role in addressing the most urgent issues facing their countries and the world, supported fully by their governments, their communities, businesses, and civil society institutions'. See [MQ student](#) share her experience with Restless Development Nepal.

Curriculum

MQ offers a:

[Bachelor of Arts with a Major in Social Justice](#).

Examples of units that include a focus on 'peace and justice':

[LAWS8055 Environmental Law and Sustainable Development](#)

[GEOP3000 Environmental Justice in the Anthropocene](#)

[LAWS8061 Environmental Planning Law](#)

[LAWS8019 Dispute Resolution Processes and Law](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, there were 429 research publications by MQ staff that had some focus on SDG16 Peace, Justice and Strong Institutions. 32.4% of these publications were co-authored with Institutions in other countries /regions.



What MQU is doing

[SDG17](#) is about revitalizing the global partnerships for sustainable development.

Macquarie University Centre for the Health Economy (MUCHE) held an Executive Roundtable workshop attended by various government and non-government stakeholders in 2018. The objectives were to explore the value of mental health, and debate what the Productivity Commission could focus upon within their Inquiry. See - [The Value of Mental Health Roundtable Report](#) May 2019.

The MQ [Lighthouse Lecture Series](#) fosters the exchange of knowledge between industry, government and not-for-profit entities and academics within the Business School. Lecture topics are of national relevance from a social, political, or economic standpoint, and draw on the research strengths within the business school.

MQU Smart Green Cities is a collaborative hub connecting a range of stakeholders including industry, government, researchers, and community to create liveable urban environments by inspiring change through evidence-based problem solving. See examples [of partnerships and key research areas](#).

Curriculum

Examples of units that include a focus on 'partnerships':

[LAWS8099 Professional and Community Engagement](#)

[MQBS3000 Student Leadership in Community Engagement](#)

Research Publications

According to data sourced from SciVal: www.scival.com and Scopus: www.scopus.com, from 2016 to 2021, a total of **8,355** research publications by Macquarie University staff had some focus on Sustainable Development Goals 1 to 16. A significant number of these publications were international publications co-authored with institutions in other countries/regions, alluding to the research partnerships formed.

