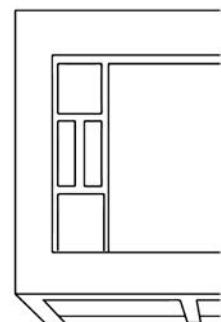
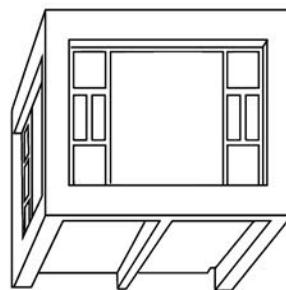




聖若瑟大學
UNIVERSITY OF
SAINT JOSEPH

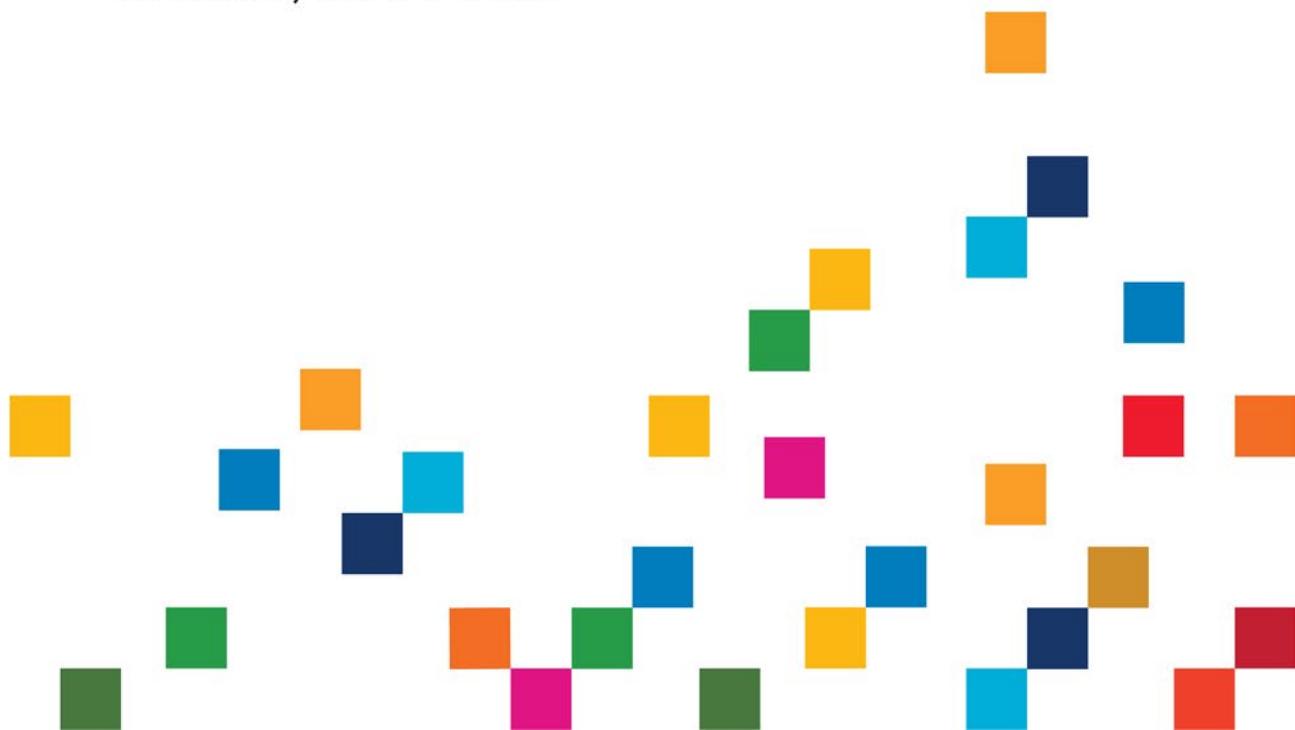
SUSTAINABLE
DEVELOPMENT
GOALS



———— 2019/2020 ————
SUSTAINABILITY REPORT

PROGRESS ON THE SUSTAINABILITY DEVELOPMENT GOALS

UNIVERSITY OF SAINT JOSEPH
———— MACAO, JULY 2021 ————



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INTRODUCTION

The United Nations' [Sustainable Development Goals](#) (SDGs) are a call to action to tackle the main challenges facing humanity and our planet today. The SDGs propose a blueprint identifying opportunities to make our world more inclusive, peaceful, and sustainable by 2030.

Universities are important drivers for the realization of these goals, due to our role in shaping and empowering the next generation, creating a bridge between research and industry, serving as a platform for debate, contributing to policy development, and disseminating competences and skills to the wider community.

The University of Saint Joseph (USJ) assumes the commitment to contribute to sustainability as part of our core [mission](#) and [strategy](#) of promoting a caring and ethically responsible, economically, socially, and environmentally sustainable society.

USJ contributes to the SDGs in three ways: (1) by conducting and disseminating impactful SDG related research; (2) by embedding the SDGs in our campus life through teaching and learning, our operations, and our internal policies; and (3) by community engagement and outreach activities.

In order to benchmark our contributions, in 2020 USJ applied to the [Times Higher Education Impact Rankings](#). The [results](#) ranked USJ 1st in Macao, and 4th in Greater China. USJ was considered 41st globally for its impact in Quality Education, in the top 200 for Marine Sciences and Environmental Sustainability, and amongst the top 600 overall, out of 1,115 universities worldwide.

At the start of 2021, USJ signed the international [SDG Accord](#), committing ourselves to aligning all our major efforts with the SDGs, to involve students, academic faculty, staff, local communities, external stakeholders, and to providing transparent reporting and goal-setting on the SDGs.

The present report aims to describe our contributions up until now, also to help us establish a plan for the future, and to encourage partnerships, so that, together, we can achieve a more sustainable future.

Maria Rita Silva
Chair of the Green Committee
University of Saint Joseph



USJ

Helping shape a sustainable,
peaceful and green future.



SDG 1

NO POVERTY

End poverty in all
its forms everywhere



SELECTED RESEARCH

Diakite, A.D., & Phillips, J.O.L. (2019). Motives of traditional and emerging donors in aid giving: comparative study between China and France. *Journal of Social and Political Sciences*, 2(4), 1026-1037. <https://doi.org/10.31014/aior.1991.02.04.140>

SDG 1 NO POVERTY

END POVERTY IN ALL ITS FORMS EVERYWHERE

CAMPUS LIFE

Equal access

At USJ we are aware that education is a powerful tool to address poverty. Equal access to education can help students from low-income backgrounds find success, build more resilient communities, and create positive change. To promote accessibility, USJ has established a set of [policies](#) for admission and success targets, as well as, [financial, housing, academic, and counselling](#) support measures targeting local and international students from low-income backgrounds. In the 2019-2020 academic year, about 8% of our students benefited from accessibility measures. As the COVID-19 epidemic worsened in our region at the start of 2020, several of our students faced unexpected financial pressures. In response, USJ quickly established a [Hardship Fund](#) to help release students from those pressures and allow them to continue their studies.



COMMUNITY ENGAGEMENT

Entrepreneurship and sustainable businesses

Sustainable businesses contribute to economic development and have a positive impact on the community. USJ partners with the local [government and other organisations](#) to provide opportunities for entrepreneurs to development sustainable businesses. We are committed to offering start-up opportunities through training programmes, capital investment, resource allocation, sharing of space, and networking. In 2019/2020, USJ organised a workshop about [Leadership and Management of NGOs](#), as well as a seminar titled [Changing the World through Entrepreneurship](#), about an internationally recognized catering social enterprise in Malaysia that partners with refugee chefs, as part of a series of activities addressing food access and poverty alleviation.

Access to basic services

In order to promote access to basic resources—such as food, water, and housing—for economically marginalised groups, our students regularly engage in [volunteer](#) and fundraising activities for charity events such as Macao's [Caritas Bazar](#).

SDG 2

ZERO HUNGER

End hunger, achieve food security and improved nutrition, and promote sustainable agriculture



SDG 2 ZERO HUNGER

END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION, AND PROMOTE SUSTAINABLE AGRICULTURE

CAMPUS LIFE

Dining services

Lack of access to food is a leading cause of death worldwide ([UN](#), 2021). Although Macao is a relatively wealthy city, USJ is aware of the diverse needs of students from various socio-economic backgrounds and with different eating habits. USJ is making efforts to improve our canteen services—which cater to members of USJ and also the students and staff of a [local secondary school](#)—by increasing healthy, affordable, and sustainable food choices, and including vegetarian and vegan options.

COMMUNITY ENGAGEMENT

Food waste reduction

Food waste is a global issue. Some estimate that 25-30% of total food produced is lost or wasted ([IPCC](#), 2019). In 2019/2020, USJ doctoral candidate, Warren Li, presented at an international workshop titled [Food Loss and Waste Prevention in the Southeast and East Asian Region](#). He presented on [Legal Compliance and Implementation of the Circular Economy for Food Waste Reduction & Handling in Macau and Hong Kong](#). The objective of his presentation was to contribute to policy development in support of Target 12.3 of the SDGs, which is to halve food waste at the retail and consumer level and reduce food loss up and down the supply chain.

SDG 3

GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages



SELECTED RESEARCH

Kouk, A. C. H. (2019) *Current trend of depression screening among Macau citizens. Project financed by the Macau Foundation, reference MF/2019/14 - Co-operation between USJ, Hong Kong Mental Health Association, and Macau Caritas, to access the prevalence, and successful strategies to prevent of depression in Macao and Hong Kong.*

Ho, C. (2019) *Student teachers' perspectives and practices on using Scratch Programme for Sex Education in kindergarten and primary school context. Project financed by the Macau Foundation, reference MF/2019/36 - This funded project investigated strategies for early intervention in sex education.*

SDG 3 GOOD HEALTH AND WELL-BEING

ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

CAMPUS LIFE

Mental-health education

Health and well-being are essential for a sustainable society. In 2019/2020, around 5% of our students graduated with degrees in the field of Psychology, equipped to promote the mental health and well-being of communities.

Policies and support services

USJ provides free mental health support to our students and staff through our [counselling services](#), which also refer sexual health issues to the appropriate health services. USJ is a [smoke-free campus](#). The use of tobacco products is prohibited in enclosed buildings and facilities, as well as during events, whether indoor or outdoor. To accommodate the needs of some students and staff, we do provide a designated 'smoking allowed' restricted area away from the main part of campus.

COMMUNITY ENGAGEMENT

Collaborations

Partnerships are vital to the promotion of the SDGs. USJ partners with the Macao government and other organisations to promote the health of Macao's population. In 2019/2020, USJ received the "Award of blood drive motivation for tertiary education institutions" in recognition of the [regular blood donation drives](#) hosted on campus.

In the same year, around 30 of our Psychology and Social Work students participated in either [volunteer or internship](#) activities with our partner organisation, Caritas Macao, in areas such as school counselling; operating a mental health helpline for suicide prevention, as well as supporting the elderly, children with disabilities, at-risk youth, expatriates, and immigrant workers.



5% of our students graduated with degrees in the field of Psychology

Mental-health outreach

Disseminating knowledge and skills in the community is part of our contribution to this SDG. In 2019/2020, USJ held public lectures about societal perceptions of people with autism spectrum disorders, with presentations both on-campus and at the Macao Science Center. Other activities targeted helping professionals, providing practical exercises, through webinars and translation of resources into local languages, to reduce stress and enhance coping skills for adults and children in the wake of the pandemic. For a third time, we ran the Mental Health First Aid course: a 12-hour evidenced-based early intervention programme to equip individuals with skills to support a friend, family member, or co-worker experiencing a mental health problem or crisis.

Health services

We provide mental health support to the community at a reduced rate, through our counselling services, and physical health is promoted through our sports facilities, which are shared with a local secondary school.



SDG 4

QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



SELECTED RESEARCH

Correia, A., Monteiro, E. Teixeira, V., Kuok, A. C. H., Forlin, C. (2019). *The interplay between a confucian-heritage culture and teacher's sentiments and attitudes towards inclusion in Macau*. *European Journal of Special Education Research*, 5(2), 43-62. <https://doi.org/10.5281/zenodo.3548921>

Ng, S. W. & Kwan, Y. W. (2020) *Inclusive education teachers: Strategies of working collaboratively with parents with children of special educational needs in Macau*. *International Journal of Educational Reform*, 29(2), 191-207. <https://doi.org/10.1177/1056787919886579>

SDG 4 QUALITY EDUCATION

ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

CAMPUS LIFE

First-generation students

Obtaining a higher education degree is important for breaking cycles of exclusion. In 2019/2020, about 64% of our enrolled students reported they were the first in their immediate families to enrol in university.

Teacher training

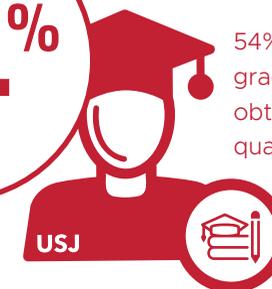
USJ invests greatly in the training of the next generation of teachers. In 2019/2020, around 54% of our graduates obtained teaching qualifications, and about 20% of graduates obtained primary school teaching qualifications.

COMMUNITY OUTREACH

Lifelong learning

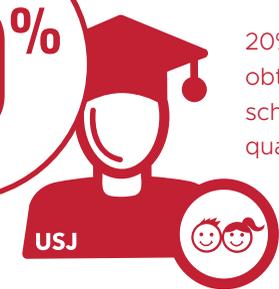
To support the integration of learning throughout life, USJ offers a variety of services and activities targeting the wider community. Our [policy](#), is that all services and activities be accessible to all, regardless of age, ethnicity, religion, disability, or gender. Our educational [outreach programme for prison inmates](#), running since 2009, provides incarcerated individuals with access to higher education and contributes to their eventual reintegration in society.

54%



54% of our graduates obtained teaching qualifications.

20%



20% of graduates obtained primary school teaching qualifications.

The [University Library](#) is open to the community, welcoming readers even if they are not students or members of the staff. For the community's continued learning, USJ provides [public events](#), [vocational training programmes](#), and education outreach activities. In 2019/2020, education outreach included the [dissemination of best practices in inclusive education](#). Another activity involved [field trips to local wetland ecosystems](#) to raise awareness among local secondary school students of the importance of wetlands for water filtration, biodiversity, coastal protection, fisheries, climate change mitigation, and to instil an understanding of the need to protect these ecosystems.

Governmental collaboration

In order to promote the integrated development of education in Macao, our Vice-Rector [Zhang Shugang](#) and University Administrator [Alejandro Salcedo Garcia](#) are members of the [Talents Development Committee](#) of the Macao SAR Government.



SDG 5

GENDER EQUALITY

Achieve gender equality and empower all women and girls



SDG 5 GENDER EQUALITY

ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

CAMPUS LIFE

Equal access to education and work

Gender equality is necessary for a more fair and sustainable society. An important contribution to that goal is equal access to education and employment opportunities. Our policies on [Admission, Equality and Diversity](#), and [Anti-discrimination and Harassment](#), ensure equal access and prevent discrimination based on gender or sexual orientation. To promote transparency and accountability, [appeal processes](#) are also in place. In 2019/2020, around 63% of our total student body and 69% of our graduates were female. For employees, about 55% of our total staff, and 36% of our staff in senior positions (Professors, Deans, and Management Team) were female.

Maternity and paternity policies and support

In order to support families, USJ has a generous maternity and paternity paid leave [policy for the Macao market](#), and has established a [partnership with a nursery](#), that ensures childcare facilities at reduced rates for our staff, making it easier for parents to choose to actively participate in the job market.



SDG 6

CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all



SELECTED RESEARCH

Lei, M. T., Monjardino, J., Mendes, L., Gonçalves, D., Ferreira, F. (2020). Statistical forecast of pollution episodes in Macao during national holiday and COVID-19. *International Journal of Environmental Research and Public Health*, 17(14), 5124. <https://doi.org/10.3390/ijerph17145124>

SDG 6 CLEAN WATER AND SANITATION

ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

CAMPUS LIFE

Water stewardship

Water is an essential and finite resource that should be protected. At USJ, we are committed to our Green Campus [Environmental Action Plan](#), which includes rainwater harvesting and recycling systems. The USJ campus is equipped with drinking fountains on each floor, both to promote access to free drinking water and to motivate students and staff to bring their own reusable water bottles, which minimizes plastic consumption and waste. In 2019/2020, each person on the USJ campus consumed an average of about 7.4 m³ of water.

COMMUNITY ENGAGEMENT

Water conservation

USJ supports water conservation off-campus and collaborates with the local government and NGOs to ensure clean water resources are maintained. Much of our Institute of Science and Environment's direct action is focused on [mangrove conservation](#). Among the many ecosystem benefits of mangroves, coastal protection and their ability to filter toxic materials make them crucial battlegrounds in the fight for the conservation of water resources. Activities conducted in 2019/2020 include [mangrove planting](#), [wetland plants' use](#) in reducing local water pollution, and [beach cleaning and litter monitoring](#) activities with students.

7.4 m³



Each person on the USJ campus consumed an average of about 7.4 m³ of water.

SDG 7

AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all

7 AFFORDABLE AND CLEAN ENERGY



SELECTED RESEARCH

Afonso, F. (2019, October, 25-27) Potential for the design of an energy saving facade system using agglomerated cork: implications in subtropical climates (Conference presentation), 2nd International Conference on Sustainable Buildings and Structures, Xi'an Jiaotong-Liverpool University, Suzhou, China.

SDG 7 AFFORDABLE AND CLEAN ENERGY

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

CAMPUS LIFE

Efficient facilities

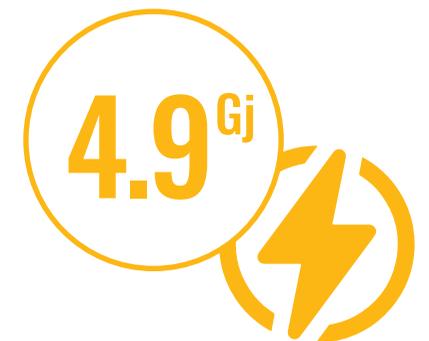
Excessive use of fossil fuels is the major cause of climate change in the world today. At USJ we are committed to the use of alternative and cleaner energy sources, such as solar panels, and solar-powered water heating, and to the reduction of our energy needs through the use of low energy consumption and LED bulbs. Launched in 2019, our fully equipped [Green Campus](#) incorporates green technologies for the reduction of energy consumption, including:

- Solar power electricity panels
- Solar-powered hot water heating
- Energy recovery in ventilation systems and chillers
- Low consumption bulbs and LED bulbs
- Low transmission glazing
- Crossflow ventilation chimneys
- Rainwater harvesting and recycling systems
- Ledger green strips and fins
- Rooftop gardens

COMMUNITY ENGAGEMENT

Energy use

The average energy use per person on campus in 2019/2020 was 4.9 GJ.





SDG 7

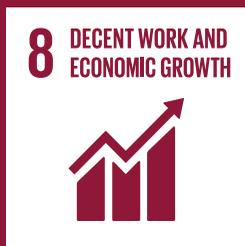
7 AFFORDABLE AND CLEAN ENERGY



SDG 8

DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



SELECTED RESEARCH

Rothlin, S. (2019). *La dottrina sociale della Chiesa in Cina. Un riferimento per l'etica degli affari (Catholic social teaching in China. a reference for business ethics)* IN A. Spadaro (Ed.) *La Chiesa in Cina un future da scrivere* (pp. 61-73)., Rome: *La Civiltà Cattolica*. <https://doi.org/10.32009/22072446.1909>

SDG 8 DECENT WORK AND ECONOMIC GROWTH

PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

CAMPUS LIFE

Employment practices

Promoting an inclusive and fair workplace is an important part of creating decent work environments and fostering economic growth. Our policies on [Equality and Diversity](#), and [Anti-discrimination and Harassment](#), ensure equal access to employment and prevent discrimination based on age, physical ability, gender, sexual orientation, economic status, ethnicity, religious affiliation, or political persuasion. To promote transparency and accountability, [appeal processes](#) are also in place. USJ is committed to paying all our staff above the Macao living wage. Operating [expenses for personnel](#) account for nearly 63% of the total annual budget for operations. And about 74% of our staff are on contracts of more than 24 months.

Students work-placement

Ensuring our students are positioned for a smooth transition from university to the workplace is a priority at USJ. In 2019/2020, about 46% of our students participated in work placements or internships, giving them the support and experience needed to enter the workforce ready to contribute.

63%



Operating [expenses for personnel](#) account for nearly 63% of the total annual budget for operations.



46%

In 2019/2020, about 46% of our students participated in work placements or internships

SDG 9

INDUSTRY AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation



SELECTED RESEARCH

Gassner, F. (2020). Resources for future in a caring economy. In I, Klissenbauer, F. Gassner, P, Steinmair-Pösel, P, Kirchschräger (Eds.), *Menschenrechte und Gerechtigkeit als bleibende Aufgaben: Beiträge aus Religion, Theologie, Ethik, Recht und Wirtschaft (Human Rights and Justice as Permanent Endeavors: Contributions from Religion, Theology, Ethics, Law and Economics)* (pp. 683-697). Vienna University Press. <https://doi.org/10.14220/9783737011655.683>

SDG 9 INDUSTRY AND INFRASTRUCTURE

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION, AND FOSTER INNOVATION

Infrastructure provides the basic physical facilities essential to business and society; industrialization drives economic growth and job creation, thereby reducing income inequality; and innovation expands the technological capabilities of industrial sectors and leads to the development of new skills.

CAMPUS LIFE

Students' projects and workshops

Innovation that addresses issues of sustainability is encouraged in USJ's programmes. In 2019/2020, some of the activities organised to promote innovation included an exhibition of graduation projects by students in the Bachelor of Architectural Studies programme, which featured [radical green architecture concepts](#) aimed at enhancing the surrounding Ilha Verde area by including more public spaces with greener and more sustainable characteristics. Students in our Bachelor of Fashion Design programme put on a [series of workshops](#) on sustainable manufacturing and repurposing of fashion accessories and clothes in order to raise awareness and empower the next generation to have a more sustainable approach to the consumption and production of fashion products.

COMMUNITY ENGAGEMENT

Governmental collaboration

In order to promote stronger ties between academia and industry, our Vice-Rector, [Álvaro Barbosa](#), serves on the Taskforce on the Industrialisation of Research for the Higher Education Bureau of Macao.

SDG 10

REDUCED INEQUALITY

Reduce income inequality within and among countries



SELECTED RESEARCH

Diakite, A.D., & Phillips, J.O.L. (2019). Motives of traditional and emerging donors in aid giving: comparative study between China and France. *Journal of Social and Political Sciences*, 2(4), 1026-1037. <https://doi.org/10.31014/aior.1991.02.04.140>

SDG 10 REDUCED INEQUALITY

REDUCE INCOME INEQUALITY WITHIN AND AMONG COUNTRIES

CAMPUS LIFE

Accessibility and equality

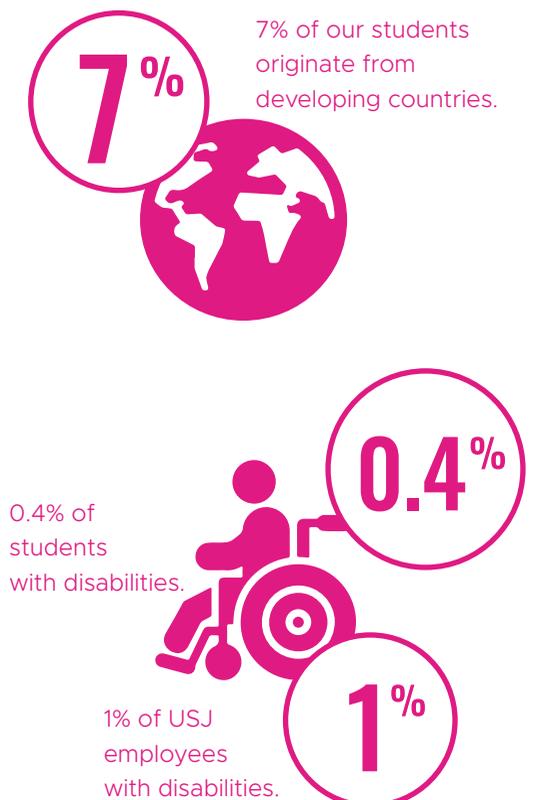
Our policies on [Admission, Equality and Diversity](#), and [Anti-discrimination and Harassment](#) ensure equal access and prevent discrimination based on age, physical ability, gender, sexual orientation, economic status, ethnicity, religious affiliation, or political persuasion. Obtaining a higher education degree is important for breaking cycles of exclusion.

In 2019/2020, about 64% of our enrolled students reported they were the first in their immediate family to attend university. And about 7% of our students originate from developing countries. For students in our care, we provide a wide range of support measures to meet the [financial, housing, academic, and counselling](#) needs of students from underrepresented groups.

USJ promotes equal access to education and work for people with disabilities in accordance with the [Convention on the Rights of Persons with Disabilities](#). Our campus facilities are disability accessible, and we have processes to accommodate the individual [needs of students with disabilities](#). In 2019/2020, our students body included roughly 0.4% of students with disabilities, and 1% of USJ employees were with disability.

COMMUNITY ENGAGEMENT

Our educational [outreach program for prison inmates](#), running since 2009, has been allowing access of incarcerated individuals to higher education, and contributing their reintegration in society.



USJ promotes equal access to education and work for people with disabilities in accordance with the Convention on the Rights of Persons with Disabilities



SDG 10

10 REDUCED INEQUALITIES



SDG 11

SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient, and sustainable



SELECTED RESEARCH

Soares, N. (2019), *Smart City Project results presentation - Project "Macau Digital Mapping – Georeferencing and Visualizing Urban data"*, granted by FDCT (Foundation for the Science and Technology) integrated in the "Project for the Implementation and Solutions for Macau intelligent City". Project code: 268/2017/A, 29 October 2019, Macau.

SDG 11 SUSTAINABLE CITIES AND COMMUNITIES

MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT, AND SUSTAINABLE

CAMPUS LIFE

Transportation

The way people get around cities is an important indicator of sustainability. At USJ, we promote the use of public transportation. Our campus is conveniently [located](#) a short distance from bus stops and a train station. In order to reduce time and energy spent commuting, USJ allows remote work for some employees.

Housing

USJ provides [affordable housing](#) to staff and students in our on-campus residential building, further conserving the time and energy otherwise spent commuting to and from the University.

Students' projects and workshops

USJ strives to provide our students with a sound academic foundation and to contribute to their integrated development as responsible global citizens. We believe today, more than ever, this must include a focus on sustainability. In 2019/2020, relevant activities included an exhibition of projects by graduates of the Bachelor of Architectural Studies programme.

The students proposed [radical green architecture concepts](#) aimed at enhancing the surrounding Ilha Verde area by improving urban design and including more public spaces with greener and more sustainable features. A [series of workshops](#) on sustainable manufacturing and the reproposing of fashion accessories and clothes involving our students in the Bachelor of Fashion Design programme, raised awareness and hopefully empowers the next generation to have a more sustainable approach to the consumption and production of fashion products.

Community engagement

Sustainable businesses contribute to economic development and have a positive impact on the community. USJ partners with the government and other organisations to provide entrepreneurial opportunities for the development of sustainable businesses. We are committed to offer start-up opportunities in terms of training, capital, resources, space, and networking. To promote the development of sustainable businesses in the community, in 2019/2020 USJ organized a workshop about Leadership and Management of NGO's, and a seminar entitled Changing the World through Entrepreneurship, about an internationally recognized catering social enterprise in Malaysia that partners with refugee chefs.



SDG 12

RESPONSIBLE CONSUMPTION AND PRODUCTION

| Ensure sustainable consumption and production patterns



SELECTED RESEARCH

Gassner, F., Klissenbauer, P., Steinmair-Pösel, P., & Kirchschräger I. (2020) *Menschenrechte und Gerechtigkeit als bleibende Aufgaben: Beiträge aus Religion, Theologie, Ethik, Recht und Wirtschaft. (Human Rights and Justice as Permanent Endeavors: Contributions from Religion, Theology, Ethics, Law and Economics)* Vienna University Press, 2020. <https://doi.org/10.14220/9783737011655>

SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

CAMPUS LIFE

Operations

USJ is committed to increasingly adopt and promote responsible production and consumption patterns. Some of these increases are described in our [Environmental Action Plan](#).

Our campus is equipped with waste sorting equipment, and we regularly promote our policy of waste minimization. For example, to minimize plastic waste, each floor on the USJ campus is equipped with water fountains designed for filling reusable water bottles. USJ is structuring our environment to incentivise responsible consumption habits during the highly formative years of our students.

Students' projects and workshops

A [series of workshops](#), involving Bachelor of Fashion Design students, raised awareness for sustainable manufacturing and reproping of fashion accessories and clothes in order to empower the next generation to have a more sustainable approach to the consumption and production of fashion products.

SDG 13

CLIMATE ACTION

Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy



SELECTED RESEARCH

Lei, M.T., Monjardino, J., Mendes, L., Goncalves, D., Ferreira, F. (2019). Macao air quality forecast using statistical methods. *Air Quality, Atmosphere & Health*, 12, 1049–1057. <https://doi.org/10.1007/s11869-019-00721-9>

SDG 13 CLIMATE ACTION

TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS BY REGULATING EMISSIONS AND PROMOTING DEVELOPMENTS IN RENEWABLE ENERGY

CAMPUS LIFE

At USJ we have a commitment to our Green Campus [Environmental Action Plan](#), which includes:

- Low transmission glazing
- Cross-flow ventilation chimneys
- Solar electricity panels
- Solar hot water heating
- Energy recovery in ventilation systems and chillers
- Low consumption bulbs and LED bulbs

COMMUNITY ENGAGEMENT

Ecosystem conservation

In order to support the study and conservation of local mangrove ecosystems, USJ's Institute of Science and Environment has organised a [series of activities](#) to promote ecosystem rehabilitation and maintenance, along with the enhancement and protection of biodiversity in the local coastal wetland ecosystems.

Food waste reduction

Food waste is a global issue. Some estimate that 25-30% of total food produced is lost or wasted, which in turn contributes to about 8-10% of the total human-caused green-house gas emissions (IPCC, 2019). Therefore, reducing food waste is an important aspect of climate change mitigation.

In 2019/2020, USJ doctoral candidate, Warren Li, presented at an international workshop on [Food Loss and Waste Prevention in the Southeast and East Asian Region](#). His presentation was about [Legal Compliance and Implementation of the Circular Economy for Food Waste Reduction & Handling in Macau and Hong Kong](#). The objective of his presentation was to contribute to policy development in support of Target 12.3 of the SDGs, which is to halve food waste at the retail and consumer level and reduce food loss up and down the supply chain.

SDG 14

LIFE BELLOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development



SELECTED RESEARCH

Breitzler, L., Lau, I. H., Fonseca, P. J., Vasconcelos, R. O. (2020) Noise-induced hearing loss in zebrafish: functional and structural inner ear damage and recovery. *Hearing Research*, 391, 107952. <https://doi.org/10.1016/j.heares.2020.107952>

SDG 14

LIFE BELLOW WATER

CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

CAMPUS LIFE

Runoff reduction

Aquatic ecosystems are vital for environmental sustainability. In USJ we are committed to our Green Campus [Environmental Action Plan](#), which includes systems of rainwater harvesting and recycling to reduce the damage done to local waters by untreated runoff and pollution.

COMMUNITY ENGAGEMENT

Environmental outreach

In 2019/2020, USJ promoted a series of public educational events on the sustainability of aquatic ecosystems and water resources. The goal was to raise societal awareness of issues such as impacts on [sustainable fishing practices](#), [protection of aquatic endangered species](#), and [nature-based solutions for urban water management](#).

Direct action

Our Institute of Science and Environment is unique in Macao for its academic focus. Much of the Institute's direct-action work is focused on [mangrove conservation](#). Among the many ecosystem benefits of mangroves, coastal protection and carbon

sequestration place them at the forefront of adaptation to climate change and mitigation measures. Activities conducted in 2019/2020 include [mangrove planting](#), [wetland plants use](#) in reducing local water pollution, [beach cleaning and litter monitoring](#).

Partnerships

In 2019/2020, USJ partnered with the [Clean the World Foundation](#)—a global leader in water sanitation, hygiene, and sustainability—and [Las Vegas Sands Corp.](#) to facilitate [The Drop by Drop Project](#) in Macao. This project's aim is to investigate ways to enhance local water quality through the use of native wetland plants such as mangroves, which act as natural water purifiers for water pollution and reduce water-related risks (e.g., flooding due to storm surges). The project also studies ecosystem rehabilitation and maintenance, as well as enhancement and protection of biodiversity in the local coastal wetland ecosystems.

SDG 14



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



SELECTED RESEARCH

Lei, M.T., Monjardino, J., Mendes, L., Goncalves, D., Ferreira, F. (2019). Macao air quality forecast using statistical methods. *Air Quality, Atmosphere & Health*, 12, 1049–1057. <https://doi.org/10.1007/s11869-019-00721-9>

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

CAMPUS LIFE

Gardens

In USJ we are committed to our Green Campus [Environmental Action Plan](#), which includes the use of green strip edgers and fins, and rooftop gardens.

COMMUNITY ENGAGEMENT

Food waste reduction

Food waste is a global issue. Reducing food waste could mean that less land is converted to agricultural use, which would have a significantly positive impact for the protection of land ecosystems. Some estimate that 25-30% of total food produced is lost or wasted ([IPCC](#), 2019).

In 2019/2020, USJ doctoral candidate, Warren Li, presented at an international workshop on [Food Loss and Waste Prevention in the Southeast and East Asian Region](#). His presentation was about [Legal Compliance and Implementation of the Circular Economy for Food Waste Reduction & Handling in Macau and Hong Kong](#). The objective of his presentation was to contribute to policy development in support of Target 12.3 of the SDGs, which is to halve food waste at the retail and consumer level and reduce food loss up and down the supply chain.

Direct action

To promote local mangroves ecosystems, USJ, through the Institute of Science and Environment, conducts a series of activities for the rehabilitation and maintenance of ecosystems, as well as the enhancement and protection of biodiversity in the local coastal wetland ecosystems, which protects Macao from damage done to the land by flooding.



SDG 16

PEACE JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels



SELECTED RESEARCH

Diakite, A.D., & Phillips, J.O.L. (2019). Motives of traditional and emerging donors in aid giving: comparative study between China and France. *Journal of Social and Political Sciences*. 2(4), 1026-1037. <https://doi.org/10.31014/aior.1991.02.04.140>

SDG 16 PEACE JUSTICE AND STRONG INSTITUTIONS

PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

CAMPUS LIFE

Students and staff representation

USJ ensures representation of students, faculty, and staff in school governing bodies through our [student association](#) and regularly held [elections to University governing bodies](#).

Policies

In order to promote good governance, USJ has a policy to address the risk of [corruption and bribery](#), and a policy protecting [academic freedom](#).

Transparency

USJ regularly publishes its financial data in our Annual Report. The report for 2019/2020 can be found [here](#).

COMMUNITY ENGAGEMENT

Stakeholder engagement

Strong institutions promote stakeholder participation. USJ is open to the contributions of industry, government, and other groups in society, and has a policy for the identification and [engagement](#) of diverse stakeholders. The contributions of our advisory boards are important to our understanding of the needs and resources of the community.

Community outreach

In order to promote policy and lawmakers' education, in 2019/2020 USJ organised an open lecture focusing on [international law and trade wars](#).

SDG 17

PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable



SDG 17 PARTNERSHIPS FOR THE GOALS

STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE

CAMPUS LIFE

Education for the SDG

USJ strives to provide our students with a sound academic foundation and to contribute to their integrated personal and social development. We believe today, more than ever, this must include a focus on social, economic, and environmental sustainability. About 96% of our programmes include [modules](#) that address the SDGs.

Reporting on the SDG

With the present report, our first annual Sustainability Report, USJ assumes the internal commitment to report on our progress in reaching the SDGs.

PARTNERSHIPS FOR THE GOALS

Policy development

The SDGs aim to tackle complex and multidimensional challenges requiring structural changes; therefore, partnerships are essential. USJ has established relationships with governmental and non-governmental

organisations for policy development. For example, USJ has promoted policy development by participating in the Rehabilitation International Asia & Pacific Regional Conference, presenting [data on inclusive education](#), and also through the presentation of [radical green architecture concepts](#), which are to enhance the surrounding Ilha Verde area through urban design improvements and as a way to envision new uses for the space.

Cross sectoral dialogue about SDGs

In 2019/2020, USJ participated in the 34th Association of Universities of Asia and the Pacific (AUAP), which had the theme: "Climate change adaptation – the challenging role of higher education institutions." USJ [signed a Memorandum of Understanding](#) with [Hindustan Institute of Technology & Science](#), to further develop USJ's network of exchange and research collaboration in Asia and the Pacific.

Collaborations with NGOs for the SDGs

USJ collaborates with a number of NGOs for specific SDGs as part of our [environmental](#) and [social outreach](#) programs. For example, in 2019/2020, USJ collaborated with local NGOs through our [student volunteer activities with Caritas](#), and our [Drop by Drop](#) water stewardship project.

SDG PROGRESS

MAIN CONTRIBUTIONS AND DIRECTIONS FOR THE FUTURE.

WITH THIS REPORT, WE DESCRIBE OUR EFFORTS TO PURSUE THE SDGS THROUGH VARIOUS SUSTAINABILITY ACTIVITIES IN 2019/2020. THE 17 UNITED NATIONS [SUSTAINABLE DEVELOPMENT GOALS](#) (SDGS) CAN BE GROUPED INTO 5 MAIN AREAS ACCORDING TO THE CHALLENGES THEY AIM TO ADDRESS: PEOPLE, PLANET, PROSPERITY, PARTNERSHIPS, AND PEACE. OUR MAIN CONTRIBUTION HAS BEEN TO THE AREA OF PEOPLE.

MAIN CONTRIBUTION

We consider the Goals we have supported most have been in the area of People. Some highlights include our leading role in research and policy development for [inclusive education](#), our [prison outreach program](#), and our focus on outreach activities that promote the [mental health and well-being](#) of the community.

PEOPLE



CONTRIBUTIONS AND ADVANCEMENTS

USJ has been making efforts to actively establish and participate in partnerships and collaborations for the SDGs, and to refine and improve our institutional SDG related policies. These efforts are paying off and will be extended in the future.

PARTNERSHIP



PARTNERSHIP



DIRECTIONS FOR THE FUTURE

The main direction of our future efforts is toward the areas of “Planet” and “Prosperity.” USJ’s Institute of Science and Environment is unique in Macao for its academic focus and plays a vital role in research, monitoring, and intervention for [mangrove conservation](#) and aquatic ecosystems preservation. In the coming years, we aim to also increase contributions to land ecosystems preservation, with increased focus on the efficiency of our facilities and operations in order to better contribute to the other Planet related goals.

PLANET



Going forward, through our Faculty of Business and Law, we aim to also promote more community engagement regarding Goals related to prosperity and economic growth.

PROSPERITY



The present report has catalysed institutional reflection on our systemic efforts in the area of sustainability and we are using it to chart next steps and develop a plan for future actions.



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SUSTAINABLE
DEVELOPMENT
GOALS

