

The background of the cover is a collage of four diamond-shaped images. The top-left diamond shows a tall, modern white building. The middle diamond shows a green sculpture of two dolphins. The bottom diamond shows a large, white, modern architectural structure with curved walls. The right side of the cover is a solid dark red color.

# **Tamkang University Sustainability Report 2019**



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Tamkang University was founded in 1950 and has been in existence for 70 years while always attaching great importance to campus sustainability. From 2011 to 2013, it won Taiwan's Enterprise Environmental Protection Award for three consecutive years, and was awarded the "Honorary Enterprise Environmental Protection Award." In 2012, Tamkang was a permanent member of the Taiwan Green University Alliance, linking the power of various universities to jointly promote the work of green universities.

The Times Higher Education in the United Kingdom conducts a ranking of university influence and measures the contribution of universities based on the 17 sustainable development goals announced by the United Nations. According to the niche and conditions to participate in this ranking, the university selected 7 sustainable development goals as evaluation items, including the 4th sustainable development goal of the "Quality of Education," the 6th goal of "Water Purification and Sanitation," the 7th goal of "Affordable Clean Energy," the 8th goal of "Employment and Economic Growth," the 11th goal of "Sustainable City," the 12th 2 goal of "Responsible Consumption and Production," and the 17th goal of "Global Partnership."

Based on these 7 sustainable development goals, the report summarizes the university's four aspects of research, teaching, service, and campus governance. It further elaborates on the university's commitment to social responsibility and the efforts to promote the sustainable development of humanity. Under the joint efforts of all faculties and students, Tamkang looks forward to the implementation of the goal of sustainable development within the community.

*Dr. Huan-Chao Keh*  
President, Tamkang University

# 4 QUALITY EDUCATION



- ◆ Views of Open Course Ware : **over 256 thousand**
- ◆ Number of visitors who borrowed library card : **5,581**
- ◆ Number of people participated in the campus and community service course : **5032**
- ◆ Hours of sports volunteer service : **more than 5,000 hours**
- ◆ Number of people participated in the extracurricular activities of clubs : **256,907**





Tamkang offered general and lecture courses on Youtube, the "OpenCourseWare" which provides free general courses, lecture courses, MOOCs, professional knowledge service-learning courses, online learning materials for various language departments, and sets online learning courses (online teaching videos such as basketball, tennis, badminton, swimming, Tai Chi and aerobic dance).

Established a sports volunteer service team to implement volunteer service plans, and a Cambodian service learning group. Provided online learning materials for various languages, and builds online teaching videos for basketball, tennis, badminton, swimming, Tai Chi, and aerobic dance. Established a senior sports online learning course, and traveled to the Taipei Municipal Bailing High School to provide information and library science courses. The Global Local Action Practice Program (GLAP) went to Jinyue Elementary School to lead tribal children to study and traveled to Nan Oau Middle School and Wusha Middle School to provide English Club courses. Assisted with the establishment of a bilingual audio guide app for Luodong Forest Farm, a guide manual for Yilan Municipal Library, and a bilingual audio guide app. Offered free service for Japanese students reading clubs, Sanzhi tea picking and tea making experience, gardening, and hands-on work, organizing scientific lectures, financial consumer protection outlook lectures, and provided children's Formosa board game courses. Conducted the Tamkang Clement and Carrie Chair lectures, speeches, seminars, and special lectures to provide lifelong learning opportunities.

In terms of book resources, provided free use of library books, audiovisual materials, and electronic resources: visitors may enter the library with proper identifications.

For paid courses, Tamkang offered Lohas courses, multiple licensing courses, physical and online Chinese courses, secondary teachers' specialty classes, master's credit classes, and bachelor's credit classes that are accompanied by classes. Visitors need to pay a fee to use computer classroom services. In 2019, there were 33 rental applications for 18 off-campus units, using 1,172 hours in total.

## 6 CLEAN WATER AND SANITATION



- ◆ Number of free drinking fountains : **303** (the second high density in the country)
- ◆ Technology waterless urinals : **231** (saving 5.06 million liters of water every year)
- ◆ Per capita water consumption (Liter/day) : **53.45** (much lower than the average of other universities' 110)
- ◆ The annual water consumption reduced by **9.2%** (43.14 million liters of water saved)



In terms of water safety, Tamkang used tap water that meets the national drinking water quality standards as the main source of campus water; water safety is ensured through the inspection, management, maintenance, and cleaning of water storage towers, pipelines, drinking water equipment, and water quality testing. For drinking water, according to the continuous drinking water supply fixed equipment use and maintenance management method, the sampling operation of 1/8 of the total number of drinking water machines is implemented every season. The university's per capita of water consumption in 2019 is approximately 53.45 liters per person/day, better than the average per capita (110 liters/day) of water consumption of colleges and universities in Taiwan.



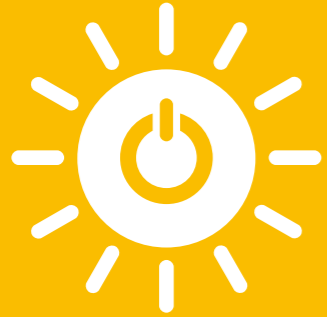
In terms of water conservation, the Tamsui campus has a green coverage rate of about 58%, and the Lanyang campus has a green coverage rate of more than 80%. The new buildings on campus are more in line with the concept of green buildings, emphasizing the water retention function of the base, effectively retaining rainwater, and preventing it from becoming runoff. In terms of reducing water waste, through the plantation of native plants and drought-tolerant plants, the reduction of water usage for sprinkler irrigation is reached. Water consumption is reduced by the installation of water-saving faucets, flushing toilet seats, and technological non-flushing urinals.

In terms of wastewater treatment, campus domestic sewage utilizes the public sewage treatment plant through the sewage sewer and discharged after it meets the discharging standards; the waste liquid generated in the laboratory is collected by temporary storage on the campus and appointed regularly every semester. Qualified manufacturers of the Environmental Protection Agency transports and treats wastewater accordingly.

In terms of community water use, the regular update on the use of water-saving labels and other equipment, along with the water-saving campaign on campus is committed to water conservation education and publicity through reminder posters in toilets and multimedia publicity (i.e. Cyber Channel, Tamkang Times). In terms of water-saving cooperation outside of campus, student associations take advantage of the opportunity of winter and summer vacation service teams to travel to the countryside elementary and middle schools to promote and educate future students; through the implementation of the university's support for sustainable use of water resources, the combination of the power of the public sector or enterprises to guide the community, the emphasis was made on the water resources in the community.

In terms of water resources research, the university's Water Resources Research Center, Information Center for Water Environment, and the Center for Ocean and Underwater Technology Research continues to cooperate with governmental water resources agencies, such as the Environmental Protection Agency, Water Resources Agency, or regional river bureaus, etc. Tamkang maintains close cooperation to support water management practices with the research energy of the academic community and provides opportunities for professors and students of relevant departments to exert strengths.

# 7 AFFORDABLE AND CLEAN ENERGY



- ◆ Greenhouse Gas (Greenhouse Gas, GHG) : 15,777.83 tCO<sub>2</sub> equivalents (annual decrease of 3.9%)
- ◆ The EUI reduction rate : 3.45%
- ◆ Number of people participated in environmental protection related courses or activities: 31,241







Since the implementation of the ISO14001 environmental management standard in 2003, Tamkang has gradually implemented various energy-saving measures. Established an energy-saving monitoring system in 2006, verified campus greenhouse gas emissions based on the ISO14064-1 standard in 2013, passed the ISO50001 energy management standard in 2015, and achieved the goal of at least 1% of the annual energy-saving rate of the Tamsui campus in the past five years. The electricity bill also fell from the highest peak of \$91.26 million NTD per year to \$70.66 million NTD per year in 2019. The university has also established an "Environmental Sustainability Promotion Committee" to supervise, review, and evaluate the implementation benefits of various energy-saving plans.

From 2011 to 2013, Tamkang was awarded the "Corporate Environmental Award" of Taiwan for three consecutive years. In 2017, the university won the "Energy Conservation Benchmark Award" from the Ministry of Economic Affairs of the Executive Yuan. In 2019, the newly completed Hsu Shou-Chlien International Conference Center on the Tamsui campus won the Green Building Silver Award.

Tamkang responded to and signed the "The Talloires Declaration," and in 2013, it co-produced the "Taiwan Green University Alliance" with many institutions. Since 2019, President Huan-Chao Keh has also served as a supervisor of the alliance; and professors from the Department of Architecture, Department of Chemical and Materials Engineering, Department of Water Resources and Environmental Engineering, Department of Computer Science and Information Engineering, and Department of Economics are all within the energy field, serving as review members, executing research projects, responsible for training and other different capacities, and continuously cooperate with the industry, government, and academia to exert influence.

The university serves as a role model of "Globalization," leading primary and secondary schools in Tamsui, Lanyang, and the North Coast of Taiwan for further development. By the end of 2019, the "Ecological Sustainable Tamsui Declaration" was issued to jointly announced with seven various elementary schools, local NGOs, and the Tamsui District Office to demonstrate the determination of ecological conservation and environmental protection, and support low-carbon economy or technology startups to implement university social responsibilities.

## 8 DECENT WORK AND ECONOMIC GROWTH

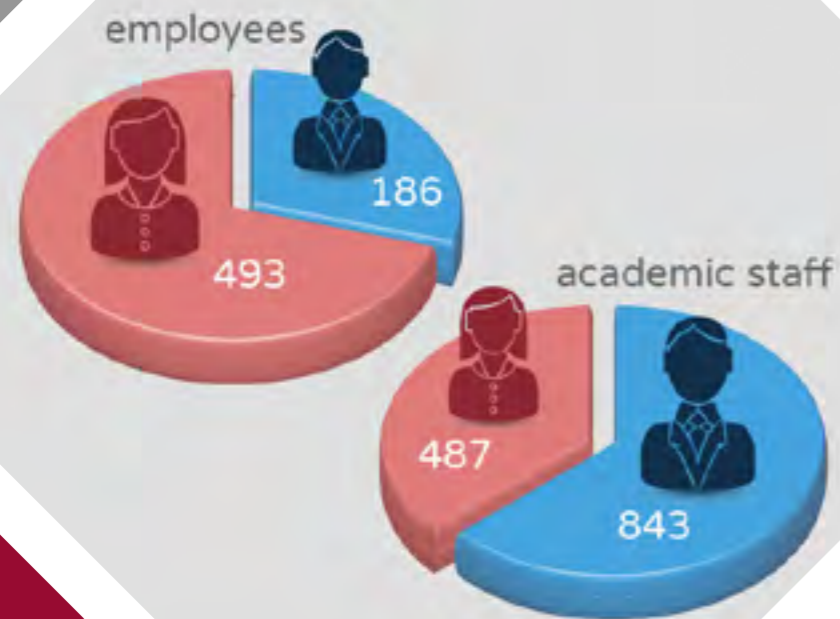


- ◆ Number of labor-employer meetings held from 2017 to 2019 : 12
- ◆ Number of labor issues resolved by the labor-management conference from 2017 to 2019 : 16
- ◆ The ratio of the minimum wage for men and women in the same position is 1:1
- ◆ Number of gender-related courses : 41

### Ching-sheng Memorial Hall

#### 淡江大學108學年度新聘教師座談會





Tamkang creates a boundless working environment and protects the rights and interests of faculty and staff with a system since all faculty and staff are an important asset of the university. Faculty and staff recruitment is conducted openly and fairly and must be reviewed and approved by the three-level review committee of the department, college, and university. Staff members are openly recruited from time to time and the Human Resources Department will work with the required units when there are vacancies available. The appointment of the individual is selected after the oral examination and at the same time, the staff promotion examination is conducted with the "Employee Selection and Promotion Measures," and the results of the examination must be reviewed and approved by the Employee Personnel Appraisal Committee to ensure the fairness of the examination.

The university's faculty and staff have a clear salary calculation standard table and are promoted with relevant regulations. The salaries are all compliant with the regulations of public schools and are also ranked within 50% of the national ranking, ensuring that faculty and staff may work in the university worry-free. If full-time employees are not hired for a fixed period, they may only be repatriated if they are unfit with the laws and regulations.

The university is committed to ensuring gender equality and the ratio of full-time teachers of men and women is 3 to 2, staff members are 3 to 7 with the ratio of female staff to part-time supervisors is more than 70%. The Student Affairs Office has set up an Indigenous Student Resource Center and attaches to the importance of the employment and well-being of the indigenous individual and ensures ethnic equality. With the provisions of the student-teacher ratio of the Ministry of Education, Tamkang employs sufficient full-time and part-time teachers to ensure the continuous improvement of teaching quality; a reasonable student-to-job ratio is set to ensure the continuous improvement of service quality. Labor-management meetings are conducted quarterly to promote labor-management harmony; "Teacher Appeals and Appraisal Committees" and "Employee Appeals Appraisal Committees" are both available to ensure the well-being of all faculty and staff.

# 11 SUSTAINABLE CITIES AND COMMUNITIES



- ◆ Number of library visitors : **68,962**
- ◆ Number of participants in art-related activities : **16,900**
- ◆ Number of multimedia classrooms with MS team : **270 classrooms**
- ◆ Number of beds available in dormitories : **2936**
- ◆ The total length of the sidewalk in the Tamsui campus is **3,740** meter
- ◆ Number of passengers traveled with shuttle buses : **1,088,996**  
(increased by 6.27% compared with 2018)



Tamkang is known as a "Campus Without Walls" and is an open university campus integrated with the local community. The campus is facing the sunset over Guanyin Mountain and the estuary with a wide view. The magnificent architecture includes the Chinese Palace-style classrooms and Chinese Palace-Style Avenue is listed as one of the eight scenic spots in Tamsui and one of the important tourist attractions. From the campus, individuals may see the sunset view of Tamsui.

In terms of building an ecological campus, the university actively promotes "low-carbon environmental protection," "energy-saving measures," "environmental-friendly buses," transfer systems, etc., to implement the concept of sustainable development. Tamkang is awarded the "Enterprise Sustainable Development Award" issued by the country. The newly-built Hsu Shou-Chlien International Conference Center received the green building silver medal. At present, many buildings have been reused using building maintenance methods, including the College of Education, Student Dormitory, Restaurants, and the Gallery of Tamkang History.

Tamkang hopes that it will become an environmental education base for visiting and learning by primary and secondary schools in the North Coast area by the active designation of environmental education fields. Professors and students assisted in the planning and establishment of sustainable campuses for small and medium-sized schools in the Tamsui area also assisted in obtaining funds and moved towards the construction of a sustainable environmental network.

Tamkang's support for arts and historical heritage includes thirty-five historical sites and historical buildings in the Tamsui area. Professors and students participate in the hometown protection work of the designated process of these cultural assets. The university is also closely related to two historic sites in Tamsui, one is a systematic historic site on the Huwei Waterway, in which the pumping chamber is located next to the Slope of Overcoming Difficulty, and the second is the historic site of the Cemetery of Yu-Jen Yu, which connects Mr. Yu-Jen Yu in Tamkang calligraphy inscriptions left on campus. In addition to being the core museum of the Tamkang environmental education base, the "Maritime Museum" is also a member of the Tamsui Museum family in New Taipei City. It is one of the tourist attractions visited by cultural buses at the potential point of the Tamsui World Heritage Site.

In terms of the maintenance of intangible assets, the university's first local research on "Tamsui Studies", a documentary on Tamsui, the publication of local publications "淡淡," and the construction of a topical website, record the rich cultural experience of daily Tamsui. Among them, the Tamsui Wiki has accumulated a lot of information over time and has become a collection of local data.

In terms of resource sharing between the university and the city, the Chueh-Sheng Memorial Library is a treasure trove of important knowledge acquired by the residents of Tamsui. Librarians also actively assist in the construction and development of public libraries and primary and secondary schools in Tamsui. The library will also eliminate old books in an open manner and provide them to the library for collection.

In terms of providing art exhibitions, the Carrie Chang Exhibition Hall is open for regular exhibitions, and the performances held in the auditorium are open to Tamsui residents that may require the purchase of tickets to visit. The students of the experimental theater use aging as issues for their creative presentations and invited senior citizens in Tamsui to participate in the activities.

In the practice of sustainable transportation, the university advocates "Bus into campus", improves the bus waiting environment, provides convenient and compact barrier-free bus services, and connects the communities around the campus with the MRT station. Organized marketing activities such as "Take the bus, then lucky draw" with passenger transportation companies annually to encourage teachers and students to use public transportation. The public rental bicycle system YouBike is also set up around the campus to provide shared public bicycle services, forming a complete and convenient public transportation service network with buses and MRT.

Tamkang continues to transform and reallocate campus roads and parking spaces to create a "People-oriented" campus environment. Rearranged the road space on the campus central axis, reduced the width of the lanes and limit the speed, provided continuous and spacious permeable pavement sidewalks and marking sidewalks, avoided conflicts between pedestrians and vehicles, and ensured the safety of pedestrian movement and space. Pedestrian walking areas and recreational spaces have been reorganized in areas where faculty and student activities are intensive on campus, parking spaces are moved to the outer edge of the campus, and the number of parking spaces is appropriately controlled.

The university also cooperated with electric locomotive manufacturers to introduce battery exchange stations in the dedicated locomotive parking lot to serve faculties, students, and residents around the campus. Opened the Five-Tiger locomotive parking lot to share with the community, and absorb roadside locomotive parking, so that the city government can renovate the pedestrian space from the light rail Tamkang University Station to the campus to create a mutually beneficial situation.

Tamkang provides adequate student dormitories in the practice of sustainable housing. Tamkang Academy off-campus provides bus shuttle services, the Office of Student Affairs has a residential counseling team to provide students with advice on off-campus accommodation, and residential students are able to walk to campus.

The newly-built Hsu Shou-Chlien International Conference Center of the university has obtained the silver medal for green buildings. Historical buildings such as the Chinese Palace-Style Classrooms have been renovated by means of activation and reuse. In conjunction with the renovation of campus buildings, energy-saving measures such as smart energy-saving control systems have been introduced to achieve the goal of environmental sustainability.

# 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



- ◆ Winning the New Taipei City Green Procurement Outstanding Unit Award for five years continuously
- ◆ Number of low-carbon boxed meal : **21,274**
- ◆ The amount of garbage reused through the recycling system: **about 87,014 kg**
- ◆ The amount of green procurement : **15,394,080 NTD**





Tamkang is committed to implementing responsible consumption and production. It has implemented the ISO 14000 environmental management system for more than ten years and has formulated policies for "Waste Reduction", "Green Procurement", "Resource Recycle", and "Hazard Prevention". The food supplied by catering manufacturers are required to comply with relevant safety and health laws and regulations, local ingredients are prioritized, and genetically modified ingredients are prohibited; the campus purchases of products with the environmental protection label have been awarded the New Taipei City Government's "Green Procurement Outstanding Unit Award" for 5 consecutive years.

The university has set up the Center for Environmental Protection, Safety, and Health (referred to as the Environmental Safety Center) to strictly manage and properly dispose of the hazardous waste produced by educational experiments according to the regulations, combined with the OHSAS18001 occupational safety and health standards to ensure personnel health and environmental safety. Tamkang implements the waste classifications, the restaurant strictly implements the classification and recycling of food waste, and no wastes are transported to the landfill. The store does not provide plastic bags or disposable straws. The restaurant uses high-temperature cleaning of reusable tableware, promotes low-carbon lunch, and discounts are given when one brings environmentally friendly tableware; useful scrap equipment is publicly available for transfer and renewal. All orders from catering manufacturers must be logged into the campus food ingredients platform for inspection; policies are extended to supplier outsourcing services and supply chains.

After reducing the amount of waste generated by the university, the actual discharge is about 751 metric tons, of which 87 metric tons of resources are recycled, with a recycling rate of 11.58%.

The Environmental Safety Center of the university has implemented the ISO14000 environmental management system for 20 years. From 2011 to 2013, it was awarded Taiwan's Enterprise Environmental Protection Award for three consecutive years. It is the first university within the country to receive the "Annual Enterprises Protection Award (AEEPA)". Tamkang continues to publish information about sustainable development on the center's website.

# 17 PARTNERSHIPS FOR THE GOALS



- ◆ Projects undertaken by government units related to SDGs : **338**
- ◆ Number of international seminars held : **36**
- ◆ Number of professional service-learning courses : **75**
- ◆ Number of collaborations with NPG or NGO through professional service-learning courses: **more than 20**
- ◆ Number of local children in Cambodia served by volunteers : **550**
- ◆ "Chemistry On the Go" held about 70 activities and served over **10,000** people



Tamkang's implementation of sustainable development goals and management of global partnerships are divided into four aspects:

In terms of "Professional and social services", the university is a comprehensive university with many expert scholars who have expertise in providing social development needs through government research projects and industry-academia cooperation projects. For instance, the director of the Information Center for Water Environment, Dr. Li-Chiu Chang proposed a prediction model of Shimen Reservoir acting as a key reference for urban disaster prevention. Furthermore, active participation in committees of the government including urban development, local governance, environmental protection, transportation assessment, cultural assets, reservoir decision-making, marine creational plans, waste policies, environmental education, tourism development assessment, environmental protection, energy, and other relative issues. There are also teachers who actively set up and participate in autonomous organizations (NGOs, NPOs) that focus on social issues. Initiatives and actions on public issues of society and play an important role in public knowledge.





Regarding "University as a think tank for Social Innovation and Life Experiment", Tamkang promoted the professional knowledge of service-learning courses for more than ten years, bringing classrooms to society, accumulating cooperation models between universities and non-governmental organizations, local governments, enterprises, and institutions. In addition, the implementation of the university's social responsibility practice plan worked with residents, assisted in local issues, created a vision for local development, and established studios and workstations in Tamsui. Bringing profession to the place where it is needed, work with the community and neighborhood organizations, be attentive to the social issues faced by the residents, including aging, disadvantaged, secondary employment, life, and leisure, etc., by taking practical actions. In order to assist the industrial development of local small farmers, TKU gradually constructed "University-supported agriculture" and created a regional development goal.

Tamkang's mid-to-long-term development vision is "Creation of a great Tamsui; embracing a smart future," hoping to help local communities create new value and benefits while using artificial intelligence, cloud technology, data analysis, and other technologies to improve the quality of life and benefit society. The university also implements sustainable development goals in a two-pronged manner by means of goal setting and detail creation and fulfills the university's social responsibilities.

In terms of "Industrial cooperation, regional resource integration of USR+CSR," the university actively cooperates with local enterprises through the series of university social responsibility practice programs, such as cooperation with stores, product image development, consumer experience series solutions, and cooperation with Sightseeing Old Street Merchants Association and non-governmental organizations to promote the industrial upgrading. Jointly focus on the overall environmental issues, or provide professional research and development, and together with the Hongsheng Construction Foundation to pay close attention to the company's Tianxi renovation and understanding of water culture. Cooperate with the Chi Po-Lin Foundation about the issue of marine waste on the freshwater coast. Through regional alliances in the Tamsui area, government departments, foundations, business groups, universities, and primary and secondary schools are invited to cooperate to share experiences and resources and to further the understanding of the issues advocated by the SDGs.

In terms of "Research and development cooperation and foreign links", the university accumulates research and development results of international cooperation in scientific fields closely related to SDGs, such as nuclear energy, electrical conductivity, carbon cycle, and luminescent materials, constructing relevant data, and publishing results. Professors from the Graduate Institute of China Studies and the Northeast Asia Peace Organization discussed issues related to peace and restriction of nuclear weapons at the Peace Boat workshop and participated in current world issues.

In terms of learning, such as the "Advanced green materials and sustainable water environment technology" summer school, informational exchanges were made with Australian students and the Asian Leadership Camp where the three universities of Taiwan, Japan, and South Korea continues to cooperate to discuss "Transnational Cultural Communication," "World Peace," and "Futurology," Cooperation with the Cambodia Education Centre of Community to promote high-quality education and signed a cooperation agreement. Professors and students of the university regularly travel to the local area for teaching activities. Cooperated with Oxfam Hong Kong for many years to promote the "Global citizenship" workshops, hoping that education may fulfill the responsibilities of global citizens.



## 前言

淡江大學創立於1950年，建校近70年，向來重視校園永續，在2011至2013年連續3年榮獲中華民國企業環保獎，並獲頒「榮譽企業環保獎」，也在2012年成為臺灣綠色大學聯盟永久會員，連結各大學之力量，共同推動綠色大學工作。

英國泰晤士高等教育進行大學影響力排名，以聯合國公布之17項永續發展目標衡量大學的貢獻。本校為參與此排名，依據利基及現況，選定7項永續發展目標作為評比項目，包含第4項永續發展目標「教育品質」、第6項「淨水與衛生」、第7項「可負擔乾淨能源」、第8項「就業與經濟成長」、第11項「永續城市」、第12項「責任消費與生產」及第17項「全球夥伴」。

本報告即依據這7項永續發展目標，彙整研究、教學、服務與校園治理等四方面的行動，詳實闡述本校致力於落實社會責任的作法及促進人類永續發展的努力，期待於本校師生共同努力之下，落實永續發展目標。

## 4 QUALITY EDUCATION



- 開放式課程觀看次數：逾 256,000 次
- 借閱圖書證訪客人次：5,581 次
- 2018 學年度校園與社區服務課程參與人數：5,032 人
- 2018 學年度體育志願者服務：超過 5,000 小時
- 2018 學年度社團活動參加人次：256,907 人次

### SDG4：教育品質

本校致力於推廣提供終身學習機會，在提供線上學習課程方面，「開放式課程 Youtube 頻道」免費開放一般課程與講座課程、磨課師課程、免費專業知能服務學習課程、各語系線上學習資料、建置線上學習課程（籃球、網球、羽球、游泳、太極拳及有氧舞蹈等線上教學影片）。

在辦理各類活動方面，成立運動志工服務團隊、柬埔寨服務學習團執行志願服務計畫，提供百齡高中資訊與圖書館學課程、全球在地行動實踐計畫 (GLAP) 赴金岳國小帶領部落孩童共讀、南澳國中及吳沙國中提供英語社團課程；建置羅東林場雙語語音導覽 app、宜蘭市立圖書館導覽手冊以及雙語語音導覽 app；免費辦理日文系系友讀書會、三芝採茶與製茶體驗、園藝一起動手做、辦理科學講座、金融消費保護展望演講、孩子的福爾摩沙桌遊課程。舉辦熊貓講座、業師演講、以及專題演講等提供終生學習機會。

在圖書資源方面，提供免費使用館藏圖書、視聽資料及電子資源；校外人士憑證入圖書館。

在付費課程方面，開設樂活課程、多種證照課程、實體與線上華語課程、中等教師第二專長班、碩士學分班以及學士學分班隨班附讀課程。校外人士付費租用電腦教室服務，2019 年度 18 個校外單位 33 筆租借用申請，共使用 1,172 小時。

全校提供免費飲水機數量：303 台  
(飲水機密度，全國第二高)

全校男廁科技免沖水小便斗：231 座  
(每年節省 506 萬公升用水)

人均用水量 (公升 / 日)：53.45  
(遠低於一般大學 110)

2019 年用水總量較 2018 年減少 9.2%  
(節省 4,314 萬公升用水)

### SDG6：淨水與衛生

本校在用水安全方面，使用符合我國飲用水質標準之自來水，並透過蓄水塔、管線及飲水設備的巡檢管理、保養清洗及水質檢測，確保用水安全無虞。飲用水部分，依據我國飲用水連續供水固定設備使用及維護管理辦法，每季實施飲水機台總數 1/8 的抽測作業，皆符合飲用水水質標準，另 2019 年人均用水量約為 53.45 公升/日，優於國內一般大專院校人均用水量每人 110 公升。

在水源保育方面，在水源涵養方面，淡水校園綠覆率約 58%，蘭陽校園綠覆率高達 8 成以上，校園新建建築符合綠建築概念，強調基地保水功能，有效留住雨水不讓其成為逕流。減少水資源浪費方面，透過種植原生植物及耐旱植物，減少噴灌用水；另使用節水標章設備，降低浴廁用水。

在廢水處理方面，校園生活汙水透過汙水下水道接管至公共汙水處理場，經處理後符合排放標準才進行放流；實驗室產生之廢液由校內暫存收集，每學期定期委由環保署合格廠商清運處理。

在社區用水方面，校園內節水行動除了持續更新使用節水標章等設備外，更致力於節約用水的教育及宣導，透過廁所內提醒海報，以及多媒體宣導 (賽博頻道、淡江時報) 進行教育宣導。校園外節水合作方面，透過學生社團寒、暑假服務隊下鄉到中小學的機會，紮根於未來學子；教師則透過計畫的執行，結合公部門或企業力量，引導社區民眾愛護鄉里的水資源環境，都是本校支持水資源永續利用的一環。

在水資源研究方面，本校水資源研究中心、水環境資訊研究中心和海洋及水下科技研究中心等機構，皆持續和政府水資源相關部會，如環保署、水利署或各地區河川局等單位保持密切合作，以學界研究能量支援水域管理實務，並提供相關科系師生發揮所長之機會。

## 6 CLEAN WATER AND SANITATION



## 7 AFFORDABLE AND CLEAN ENERGY



2019 年溫室氣體排放量 (Greenhouse Gas, GHG) :  
15,777.83 tCO<sub>2</sub> equivalent (較 2018 年減少 3.9%)

2018 學年度淡水校園耗能密度 (Energy Use Intensity, EUI) 降低比率 : 3.45%

2018 學年度環保相關課程或活動之師生參與人次 :  
31,241 人次。

### SDG7：可負擔乾淨能源

本校自 2003 年實施 ISO14001 環境管理標準以來，逐步落實各項節能措施。於 2006 年建置節能監控系統，2013 年依據 ISO14064-1 標準辦理校園溫室氣體排放量查證，2015 年通過 ISO50001 能源管理標準迄今，並達成近 5 年來淡水校園節電率每年至少 1% 的目標，電費也自最高峰新台幣 9,126 萬元/年，於 2019 年降至新台幣 7,066 萬元/年。校內亦成立「環境永續推動委員會」，督導、審查及檢討各項節能計畫之執行效益。

2011-2013 年連續三年獲頒中華民國「企業環保獎」，2017 年本校獲得行政院經濟部「節能標竿獎」銀獎，2019 年淡水校園新落成之守謙國際會議中心獲得綠建築銀級標章。

本校響應並簽署「塔樂禮宣言」(The Talloires Declaration)，於 2013 年與多所院校共同催生「臺灣綠色大學聯盟」。自 2019 年起，葛煥昭校長亦擔任聯盟監事；而包含建築系、化材系、水環系、資工系及經濟等系所老師亦皆在能源領域，透過擔任評審委員、執行研究計畫或負責機關培訓等不同身分，持續與產官學界合作發揮影響力。

本校擔任「全球在地化」之示範角色，帶領淡水、蘭陽乃至北海岸地區中、小學校共同成長。2019 年底結合七所小學、淡水在地 NGO 團體及淡水區公所，發表了「生態永續淡水宣言」，共同展現對於生態保育與環境保護的決心，並支持低碳經濟或技術的新創企業，落實大學社會責任。

## 8 DECENT WORK AND ECONOMIC GROWTH



2017 至 2019 年召開勞資會議次數：12 次

2017 至 2019 年勞資會議議決勞工相關議題案數：16 案

男女相同職務者之基本薪資比例為 1:1

2019 年有關性別問題課程數量：41 門

### SDG8：就業與經濟成長

教職員工為本校重要資產，本校營造良好工作環境，並以完善制度保障教職員工權益。教職員工招聘皆採公開且公正方式進行，教師須經系、院及校三級評審委員會審議通過，職員工則不定期公開招募儲備人員，遇有缺額時，則由人力資源處會同所需單位進行口試後擇優聘任。同時，依「職員遴用及升遷辦法」辦理職員升遷考試，考試結果須經職工人事評議委員會審核通過，以確保考試之公平性。

本校教職員工薪酬皆訂有明確之薪津計算標準表，並依相關規定晉薪；薪酬皆比照公立學校等級之規定，亦居全國排名 50% 以內，確保教職員工皆能安心地貢獻心力。且未聘有固定期限之專任職員工，除非依法令之規定屬不適任者，方予以資遣。

本校致力於確保性別之平等，專任教師男女比例為 3 比 2、職員工為 3 比 7，女性職員工兼任主管比例為 70% 以上。另外，學生事務處設有原住民族學生資源中心，顯示重視原住民族之就業福祉，確保族群之平等。

本校依教育部生師比之規定，聘任充足之專兼任教師，確保教學品質不斷地提升；另訂有合理之生職比，確保服務品質能不斷地精進。同時，每季定期召開勞資會議，促進勞資和諧；另設有「教師申訴評議委員會」及「職工申訴評議委員會」，確保教職員工應有之福祉。

## 11 SUSTAINABLE CITIES AND COMMUNITIES



2019 年圖書館參觀人數：68,962 人

2019 年參與藝術相關活動人次：16,900

2019 年設有 MS 團隊的多媒體教室數量：270 個教室

2018 學年度校園內外宿舍可提供床位數量：2936 個

淡水校園人行道總長度：3,740 公尺。

2019 年入校接駁公車載客人次：108 萬 8,996 人次  
(較 2018 年成長 6.27%)

### SDG11：永續城市

本校以「無圍牆的校園」著稱，是一所與所在城市結合的開放大學校園。校園正對觀音山與河口落日，視野開闊，主要的精彩建築宮燈教室與宮燈大道以「巒岡遠眺」為名，列為淡水八景之一，也是淡水的重要觀光景點之一。從校園可以眺望淡水的落日景觀。

在生態校園營造方面，本校積極推動「低碳環保」、「節能節電措施」、「環保公車」、轉乘系統等，落實永續發展的理念，獲得國家頒發的「企業永續發展」獎勵。新建的守謙國際會議中心獲得綠建築銀質標章。目前採用建築維護方式已經完成多棟建築的再利用，包括教育學院館、學生宿舍、餐廳與校史館。

除了校園開放，積極透過環境教育場域的指定，希望建構校園成為北海岸地區中小學參訪學習的環境教育基地。在這個行動中，師生協助淡水地區中小的永續的校園規劃與設置，協助爭取經費，朝向建構淡水永續環境網絡的方向邁進。

本校在對於藝術與古蹟遺產的支持方面，淡水地區有三十五處古蹟與歷史建築，師生參與這些文化資產的指定過程的家鄉守護工作。學校與二處淡水古蹟亦密切相關，一個是滬尾水道的系統性古蹟，其中唧筒室位在克難坡旁，第二個是古蹟于右任墓園，連結了于右任先生在淡江校園中所留下來的書法題字。而「海事博物館」除了是淡江環境教育基地的核心館之外，也是新北市淡水博物館家族的成員之一，假日淡水世界遺產潛力點的文化公車到訪的景點之一。

本校在無形資產的維護方面，本校首創「淡水學」的地方研究、大淡水紀錄片、地方刊物「淡淡」出版與議題網站建構等，紀錄了日常淡水的豐富文化經驗。其中，淡水維基館長期累積淡水的諸多資訊，已經成為淡水地方資料的匯集之地。

本校與城市的資源分享方面，覺生紀念圖書館是淡水居民的重要知識獲取的寶庫，同時圖書館員也積極協助淡水地區公立圖書館與中小學圖書館的建置與發展。館方也將汰舊圖書以開放的方式，提供到館者索取。

本校在提供藝術展覽方面，文錙展覽廳開放定期舉辦展覽，演藝廳舉辦的表演活動均開放給淡水居民可以索票參觀。實驗劇場的學生以熟齡議題作為創作發表會，更邀請淡水地區的熟齡民眾參與同樂。

本校在實踐永續的交通方面，倡導「公車進校園」，改善公車候車環境，提供便捷綿密的無障礙公車服務，連結校園周邊社區與捷運站。每年與客運公司辦理「搭公車，抽大獎」等行銷活動，鼓勵師生使用大眾運輸。校園周邊亦設置公共租賃自行車系統 YouBike，提供共享公共自行車服務，與公車、捷運形成完整便捷的公共運輸服務網路。

本校持續進行校園道路及停車空間改造與重分配，塑造「以人為本」的校園環境。校園中軸線道路空間重分配，縮減車道寬並限速，提供連續且寬敞之透水鋪面人行道與標線型人行道，避免人車衝突，確保行人動線與空間之安全性。並於校園師生活動密集區域改設行人徒步區與休憩空間，停車空間移劃至校園外緣，並適當管制停車席位數量。

本校亦與電動機車廠商合作，於機車專用停車場引入電池交換站，服務師生與校園周邊住戶。開放五虎崗機車停車場與社區共享，吸納路邊機車停車，以利市府改造輕軌淡江大學站至校園路段的人行空間，共創多贏。

本校在實踐永續的住房方面提供適量之學生宿舍，校外淡江學園提供公車接駁服務，學生事務處設有住宿輔導組提供學生校外住宿諮詢，住宿學生多以步行到校。

本校新建守謙國際會議中心取得綠建築銀級標章，宮燈教室等歷史建物以活化再利用方式進行整建，配合校園各大樓空間改修同時引進智慧化節能控制系統等節能措施，以達環境永續目標。

## 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



2015 至 2019 年連續 5 年獲得新北市頒發綠色採購績優單位獎座

2019 年低碳便當數量：21,274

2019 年透過回收系統再利用垃圾量：約 87,014 公斤

2019 年綠色採購金額：1,539 萬 4,080 元 2019 年入校接駁公車載客人次：108 萬 8,996 人次  
(較 2018 年成長 6.27%)

## SDG12：責任消費與生產

本校致力於落實責任消費與生產，已執行 ISO 14000 環境管理系統十餘年，訂定「源頭減量」、「綠色採購」、「資源回收」及「危害預防」之政策。要求餐飲廠商供應之食品均符合安全衛生相關法規，以在地食材優先，禁止基改食材；校園各類採購首重環保標章之產品，已連續 5 年獲得新北市政府「綠色採購績優單位獎」。

本校設置環境保護及安全衛生中心（簡稱環安中心），依規定嚴格管理並妥善處理教學實驗產出之有害廢棄物，結合 OHSAS18001 職業安全衛生標準，確保人員健康與環境安全。全校執行垃圾細分類，餐廳嚴格執行廚餘分類回收，垃圾均無運往垃圾填埋場。商店不提供塑膠袋及一次性吸管，餐廳採用高溫清洗重複使用之餐具，推廣低碳便當，自備環保餐具享優惠；堪用之報廢設備公開提供移轉續用。餐飲廠商之訂購，均需登錄於校園食材登錄平台，以備查驗；政策均擴展到供應商外包服務及供應鏈。

全校產生垃圾量扣除回饋員工自行販售量後，實際排出約 751 公噸，其中資源回收量 87 公噸，回收率 11.58%。

本校環安中心執行 ISO14000 環境管理系統已 20 年。2011-2013 年連續 3 年榮獲中華民國企業環保獎，為全國第一所獲頒「榮譽企業環保獎」的大學，持續於中心網頁發布永續發展相關之資訊。

## 17 PARTNERSHIPS FOR THE GOALS



2019 年承接政府單位且主題與永續發展目標相關之計畫案：338 件

2018 學年度舉辦國際研討會場次：36 場

2018 學年度專業知能服務學習課程開課數：75 門

2018 學年度專業知能服務學習課程與 NPG 或 NGO 合作數：逾 20 個

2018 學年度柬埔寨志願服務當地兒童人數：550 名

2019 年「化學遊樂趣」舉辦約 70 項活動和服務人次達 10,000 名

## SDG17：全球夥伴

本校在實踐永續發展目標、經營全球夥伴關係方面，分為 4 個面向展開：

在「專業與社會服務」方面，本校為綜合型大學，擁有許多專長的專家型學者，透過政府研究案與產學合作計畫來提供社會發展的需要，例如水資源中心張麗秋主任提出石門水庫的預測模式對於都市防災有關鍵性的參考作用。其次，積極參與各級政府的委員會，包括都市發展、地方治理、環境保護、交通評估、文化資產、水庫決策、海洋創生計畫、廢棄物政策、環境教育、觀光發展評估、環保與能源等等議題。也有老師積極成立與參與關注於社會議題的自主性組織（NGO, NPO），對於公共議題的倡議與行動，來到社會的真實場域，發揮重要的公共知識的作用。

在「大學作為智庫的社會創新與生活實驗」方面，本校推動專業知能服務學習課程已逾十年，將課堂帶到社會，累積了大學與民間組織、地方政府、企業及機構的合作模式，獲得合作單位的肯定。另執行大學社會責任實踐計畫，與居民一起工作，協助地方議題，打造地方發展的願景，並且在淡水成立工作室與工作站。將專業帶到需要的地方，與社區與里鄰組織一起工作，關注居民所面對的社會議題，包括高齡化、弱勢、二度就業、生活休閒等等議題，進行實際的行動。為了協助在地小農的產業發展，逐漸建構「大學支持型農業」，建構一個地域發展的目標。

本校中長程發展願景為「共創大淡水、智慧大未來」，希望協助地方社區創造新價值和收益，同時以人工智慧、雲端技術、數據分析等科技提升生活品質，造福社會。故

本校同時以目標設定和細節營造等方式，雙管齊下地進行永續發展目標各項工作，善盡大學社會責任。

在「在地產業合作，USR+CSR 的地域資源整合」方面，透過大學社會責任實踐計畫的串連下，本校積極與地方企業合作，例如與店家合作，針對產品形象開發、消費體驗串聯方案，與觀光老街商家聯誼會與民間組織合作，促進老街的產業升級工作。共同關注於整體環境的議題，或是提供專業研發，與宏盛建設基金會一起關注公司田溪的整治與水文化的認識。看見齊柏林基金會共同關心淡水海岸的海廢議題。透過淡水地區的區域結盟的方式，邀集淡水地區的政府部門、基金會、企業團體、大學與中小學合作，分享經驗與資源，落實 SDGs 所提倡的議題有所深化認識的可能。

在「研發合作與國外連結」方面，本校在核能、導電、碳循環、發光材料等與 SDGs 密切相關的科學領域累積國際合作的研發成果，建構相關數據與發表成果。大陸所教師與東北亞和平機構在和平船 (Peace Boat) 工作坊討論和平與限制核武等議題。對於當下的世界議題有所參與。

在學習上，例如「先進綠色材料與永續水環科技」夏日學校，與澳洲學生交流，台日韓三所大學持續合作的亞洲領袖營，探討了「跨國文化溝通」、「世界和平」與「未來學」等。與柬埔寨 Education Centre of Community 合作推廣優質教育並簽訂合作協議，由本校師生定期去當地進行教學活動。與香港樂施會多年合作推動「全球公民素養」課程工作坊，希望從教育可以落實世界公民的責任。



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