

SUSTAINABILITY REPORT

2025

SUSTAINABILITY REPORT

 國立虎尾科技大學
NATIONAL FORMOSA UNIVERSITY



Contents

About This Report	01
Message from the President	02
Sustainability Highlights	03
NFU Achievements	03
ESG Performance	04
SDG Implementation Highlights	05
SDGs Content Index	06

1 Sustainability Vision and Annual Strategy 07

1-1 History and Organizational Structure	09
1-2 University Development Blueprint	13
1-3 Sustainability Goals and Strategies	17
1-4 Stakeholder Engagement	19
1-5 Material Topic Identification	21

2 University Governance and Sustainability Management 25

2-1 University Governance	27
2-2 Risk Management and Internal Control	30
2-3 Financial Management and Resource Allocation	31
2-4 Academic Integrity and Ethical Governance	32
2-5 Information Security and Smart Campus	33

3 Well-being Campus and Talent Development 35

3-1 Talent Attraction and Retention	37
3-2 Compensation, Benefits, and Professional Development	39
3-3 Diversity, Equity, and Human Rights	41
3-4 Student Support and Inclusive Learning	43
3-5 Campus Safety and Health	47

4 Educational Innovation and Industry Collaboration 55

4-1 Student Internships and Career Development	57
4-2 Teaching Excellence and Sustainability Education	59
4-3 Academic Research and Impact	72
4-4 Industry-Academia Collaboration and Technology Applications	79
4-5 Awards and Recognition	83
4-6 International Collaboration and Partnerships	86
4-7 Resource Sharing and Open Platforms	90

5 Green Campus and Environmental Sustainability 93

5-1 Energy and Carbon Management	95
5-2 Water Resources and Waste Management	97
5-3 Green Procurement and Sustainable Supply Chain	102
5-4 Biodiversity and Campus Environment	103
5-5 Climate Risk and Adaptation	106
5-6 Environmental Sustainability Highlights	110

6 Social Impact and University Social Responsibility (USR) 111

6-1 USR Strategy Framework	113
6-2 USR Achievements	114
6-3 Community Engagement and Local Co-creation Cases	127

Appendix

Appendix I: GRI Content Index	131
Appendix II: TCFD Climate-related Financial Disclosures Index	135
Appendix III: Independent Assurance Statement	136
Appendix IV: Greenhouse Gas Emissions Verification Statement	139

About This Report

This Sustainability Report is the fourth report published by National Formosa University (NFU). It has been prepared with reference to the Global Reporting Initiative (GRI) Standards 2021. In addition, the report incorporates disclosures aligned with the United Nations Sustainable Development Goals (SDGs) and the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), demonstrating the University's commitment to sustainable development and transparent reporting.

This report was originally prepared in Chinese, with AI-assisted translation used for the English version.

Reporting Scope and Period

This report covers the overall operations and sustainability performance of National Formosa University. As the University operates on an academic-year system, the reporting period spans January 1, 2025, to December 31, 2025.

- Note: Certain data are presented over one to three academic years or one to three calendar years. Where the reporting period differs for specific indicators, the relevant information is explained in the corresponding sections.

Reporting Frequency

This Sustainability Report is published annually.
Current Issue: August 2026
Next Issue: August 2027

External Assurance

To ensure the quality and credibility of the information disclosed in this report, National Formosa University commissioned ARES International Certification Co., Ltd. to conduct an independent assurance in accordance with the AA1000 Assurance Standard v3 (AA1000AS v3) at the Type 1 Moderate Assurance level. Details of the assurance methodology and results are provided in Appendix III.

Feedback

We welcome your comments, suggestions, and inquiries regarding this report. Please contact us through the following channels:



Responsible Unit:

Office of Sustainability and Social Responsibility



Tel:

+886-5-631-3401



E-mail:

nfuossr@nfu.edu.tw



Address:

No. 64, Wunhua Road, Huwei Township, Yunlin County 632301, Taiwan

Message from the President

As higher education faces the challenges of transformation and sustainable development, the role of universities has evolved beyond talent cultivation to become a key driver of regional development and social innovation. Rooted in Yunlin, National Formosa University (NFU) has built upon its strengths in technological and vocational education to develop an educational model centered on place-based practice and regional co-prosperity, continuously expanding the University's positive impact on local communities and society.

Guided by the University's motto—Integrity, Uprightness, Excellence, and Diligence—NFU has upheld a tradition of practice-oriented education since its founding. In response to the United Nations Sustainable Development Goals (SDGs), the University integrates teaching, research, and social responsibility into an action-oriented educational framework, enabling students to connect academic learning with real-world challenges and societal needs.

Principal's Message

The City as a Classroom: Building an Open Learning Environment

NFU extends learning beyond the campus into local communities by engaging students in public space management, cultural heritage revitalization, and community partnerships. Through authentic, real-world experiences, students develop practical competencies while contributing their knowledge to local development, reinforcing the University's role as an active participant in public life and cultural sustainability.

This educational approach has gradually established the University's distinctive philosophy that "the field is the classroom, and practice is learning." Through interdisciplinary curricula and local collaboration, students are equipped with the knowledge, skills, and social awareness needed to address real-world challenges and become responsible global citizens.

Technology as the Foundation: Connecting Industry and Future Development

In response to digital transformation and the advancement of smart industries, NFU leverages its long-standing strengths in engineering and manufacturing to advance emerging fields such as Artificial Intelligence (AI), unmanned aerial vehicles (UAVs), smart energy, and intelligent transportation. Through interdisciplinary integration, these technologies are further applied to agriculture, environmental monitoring, urban governance, and other fields that support sustainable development.

By strengthening partnerships with government agencies and industry, the University cultivates highly skilled professionals while transforming research outcomes into practical applications. This collaborative ecosystem creates a virtuous cycle linking education, industry, and regional development, thereby enhancing regional innovation capacity and long-term competitiveness.

University Social Responsibility: Deepening Local Engagement and Social Impact

University Social Responsibility (USR) serves as one of NFU's core strategic priorities. By transforming local issues into teaching and research opportunities, the University has established an institutional framework that integrates university-wide coordination, curriculum innovation, and place-based practice. Through faculty development communities, competitive curriculum initiatives, and cross-departmental collaboration, faculty and students are encouraged to engage directly with local communities and apply their professional expertise to address real societal challenges, further reinforcing the University's educational philosophy that "courses inspire action, and learning creates impact."

Through diverse USR initiatives—including agricultural revitalization, industrial transformation, environmental sustainability, and cultural heritage preservation—NFU collaborates with government agencies, industry partners, and local communities to build regional networks for sustainable development. These initiatives have transformed the University's role from a provider of knowledge into a regional think tank and co-creation platform, continuously strengthening community engagement, talent development, and social impact while contributing to long-term regional sustainability.

Toward a Smart and Sustainable University for Regional Co-prosperity

Looking ahead, NFU will continue advancing its strategic development in university governance, environmental sustainability, and social inclusion, while further strengthening the connection between higher education and society through AI innovation, digital transformation, and interdisciplinary collaboration.

Guided by the principles of openness and co-creation, the University will continue integrating internal and external resources to promote regional revitalization and industrial upgrading. By fostering innovation, collaboration, and sustainable development, NFU aspires to become a leading force in regional transformation while fulfilling its dual mission of educational excellence and sustainable development.



Sustainability Highlights

Received two Honorable Mention Awards at the 5th Sustainability Living Lab Awards (2025), recognizing the University's achievements in sustainability practices and innovative applications.

Recognized at the 15th National Rural Revitalization Competition for University Students (2025) with the Village Residency Grant, *Community Excellence Award*, and *Rural Revitalization Rising Star Award*, demonstrating continued commitment to regional revitalization.

Won three Bronze Awards at the Taipei Golden Eagle Microfilm Festival for USR and Higher Education SPROUT Project achievements, highlighting the University's impact in sustainability education.

Received 13 awards at the 2025 Taiwan and Asia-Pacific Sustainability Action Awards, including:

Taiwan Sustainability Action Awards: 2 Gold, 1 Silver, and 5 Bronze Awards

Asia-Pacific Sustainability Action Awards: 1 Gold, 2 Silver, and 2 Bronze Awards

Honored with the "Outstanding Sustainable University Award" and the Bronze Award for Sustainability Reporting at the 2025 Taiwan Sustainable University Awards, recognizing excellence in institutional sustainability governance.

Received the First Prize in the Teaching Innovation Category and earned two Finalist/Outstanding Awards at the International Association for Sustainable Education (IASE) Education Impact Awards, demonstrating excellence in innovative teaching.

Five faculty members were recognized for outstanding achievements in University Social Responsibility (USR), reflecting the University's commitment to integrating teaching with social engagement.



NFU Achievements

Successfully launched "Mountain Bird T2" (Shanque T2), the University's self-developed CubeSat, under the mission "*Soaring Beyond the Stars*," contributing to Taiwan's indigenous space technology capabilities.

Collaborated with international partners to develop a solar-powered unmanned aerial vehicle (UAV), expanding global research collaboration in aerospace technologies.

Established the first campus microalgae carbon capture system in the Yunlin-Chiayi region, strengthening the University's net-zero and carbon management initiatives.

Ranked Second in the 2025 International Future Energy Challenge, demonstrating excellence in vehicle engineering and energy technologies.

The Department of Electrical Engineering received the Best Team Award and the Best Advisor Award at the 20th Himax IC Layout Design Competition (2025).

Earned Bronze Award and Merit Award at the 25th Macronix Golden Silicon Award – Semiconductor Design and Application Competition, showcasing outstanding semiconductor design capabilities.

Won the Gold Medal in the Mixed Doubles Tennis Competition at the National Intercollegiate Athletic Games.

Won the Gold Medal in the Men's Hammer Throw at the National Intercollegiate Athletic Games.

The interdisciplinary "Tiger Rocket" Team received Second Place in the University Division of the Taiwan Rocket Competition, demonstrating excellence in aerospace engineering.

An interdisciplinary biotechnology research team received the Innovation Award at the 2025 Asia Golden Selection Awards for its project on Automated Cell Viability Analysis, advancing biomedical technology applications.

At the 7th Green Idea International Invention and Design Competition:

"Smart Dual-Tube Ball Launcher" received the Titanium Award in the Youth Invention Category.

"Smart Green Energy Animal Recognition Platform" received the Silver Medal and the Jury Special Award.

The Department of Electrical Engineering won the Grand Prize (First Place) in the Graduate Full-Custom Design Category and received an Honorable Mention at the 2025 National IC Design Competition.

At the 30th InnoServe Awards – National Information Service Innovation Competition, NFU won three First Prizes, one Second Prize, and one Honorable Mention in the Designated Project Category, highlighting the University's strengths in artificial intelligence, cybersecurity, smart systems integration, and interdisciplinary innovation.

ESG Performance

1

Environmental Sustainability

Zero violations of environmental protection and occupational safety regulations in 2025.

Green Buildings: **2** certified buildings.

Greenhouse Gas Inventory: **10,825.3522** tCO₂e.

Renewable Energy Generation: **2.15** million kWh.

Energy Efficiency Improvements: Replaced **598** LED lighting fixtures. Implemented an Energy Management System (EMS), saving approximately 35,000 kWh annually. Replaced aging transformers, saving approximately 100,000 kWh annually.

Green Procurement Rate: **99.77 %**.

Daily Water Consumption per Capita: **58.99** liters/person/day.

Established a Campus Microalgae Carbon Capture System, capable of sequestering approximately **11** kg CO₂e per year.

2

Social Inclusion

Scholarships and Financial Aid: NT\$ **35.95** million awarded.

Continuing Education: **249** courses offered, with **4,807** participants.

Occupational Safety and Health Training: **12** sessions, attended by **2,124** participants.

Health Promotion Programs: More than **5,119** participants, representing a **20%** increase over the previous year.

Gender Equality Lectures and Activities: More than **3,000** participants.

Implemented the "Dreaming Through Skills in Rural Communities" Program, providing professional technical resources to **10** rural junior high schools.

University Social Responsibility (USR) Participation: **21,639** participant engagements, including: 11,599 students, 1,800 faculty members, 6,986 community partners, and 1,254 project staff.

3

University Governance

Faculty and Staff: **637**.

Student Enrollment: **12,003** students, including 9,190 undergraduate day-program students.

Student-to-Faculty Ratio (Day Programs): **25.18 : 1**.

Freshman Enrollment Rate: **94.38%**.

Operating Revenue: NT\$ **2.125** billion.

Faculty Receiving Merit-based Salary Incentives: **217**.

Higher Education SPROUT Project Funding: NT\$ **240** million, ranking 4th among National Universities of Science and Technology.

Industry-Academia Collaboration Projects: **246** projects, totaling NT\$ **114.96** million.

Technology Transfer: **28** cases, generating NT\$ **12,973,500**.

Taiwan and Asia-Pacific Sustainability Action Awards: **3** Gold, **3** Silver, and **7** Bronze Awards.

SDG Implementation Highlights

National Formosa University (NFU) is committed to advancing the United Nations Sustainable Development Goals (SDGs) and supporting the global transition toward sustainable higher education. Sustainability has been embedded across university governance, teaching and research, industry collaboration, social engagement, and campus operations, enabling the University to promote both campus sustainability and regional prosperity. In response to the global trends of net-zero emissions and ESG development, NFU has adopted Smart Campus, Green University, and Social Responsibility as its three strategic pillars, implementing initiatives in digital transformation, energy conservation and carbon reduction, talent cultivation, and community engagement to advance sustainable development.

To strengthen institutional sustainability governance, the University established the Office of Sustainability and Social Responsibility (OSSR), which oversees university-wide sustainability initiatives and University Social Responsibility (USR) programs. By integrating teaching, research, and service, the Office encourages faculty and students to apply their professional expertise to address societal challenges, contribute to regional development, and support industrial transformation, thereby demonstrating the positive impact of higher education on sustainable development.

Since 2022, NFU has progressively established an SDG performance mapping framework to align university activities with the United Nations Sustainable Development Goals. Teaching courses, journal publications, and conference papers are mapped to the relevant SDGs by faculty members and responsible administrative units. Research projects, industry-academia collaboration projects, and student club activities are systematically categorized by faculty members and administrative staff with expertise in sustainability, ensuring a comprehensive representation of the University's contributions to sustainable development. To date, NFU has achieved the following SDG-related outcomes:

SDG Goal	Courses	Projects	Journal Publications	Conference Papers	Student Clubs
SDG1	129	0	13	13	0
SDG2	57	2	12	13	0
SDG3	382	81	56	98	16
SDG4	3,655	59	153	312	9
SDG5	213	3	3	5	0
SDG6	45	0	19	14	0
SDG7	132	19	45	68	0
SDG8	605	12	47	103	0
SDG9	775	191	169	277	0
SDG10	169	4	8	9	0
SDG11	244	14	40	60	8
SDG12	224	14	26	43	0
SDG13	131	24	6	22	0
SDG14	36	1	2	1	0
SDG15	47	4	3	6	0
SDG16	113	3	8	6	22
SDG17	339	5	0	16	5

SDGs Content Index

In the 2025 Sustainability Report, National Formosa University (NFU) presents its annual achievements through six major chapters, each aligned with the United Nations Sustainable Development Goals (SDGs). Guided by its vision for technological and vocational higher education, NFU is committed to cultivating professionals with interdisciplinary technological expertise and positive societal impact, contributing primarily to SDG 4 (Quality Education). The University also advances University Social Responsibility (USR) and strengthens international and cross-sector partnerships in support of SDG 17 (Partnerships for the Goals), while promoting the health and well-being of all faculty, staff, and students in alignment with SDG 3 (Good Health and Well-being).

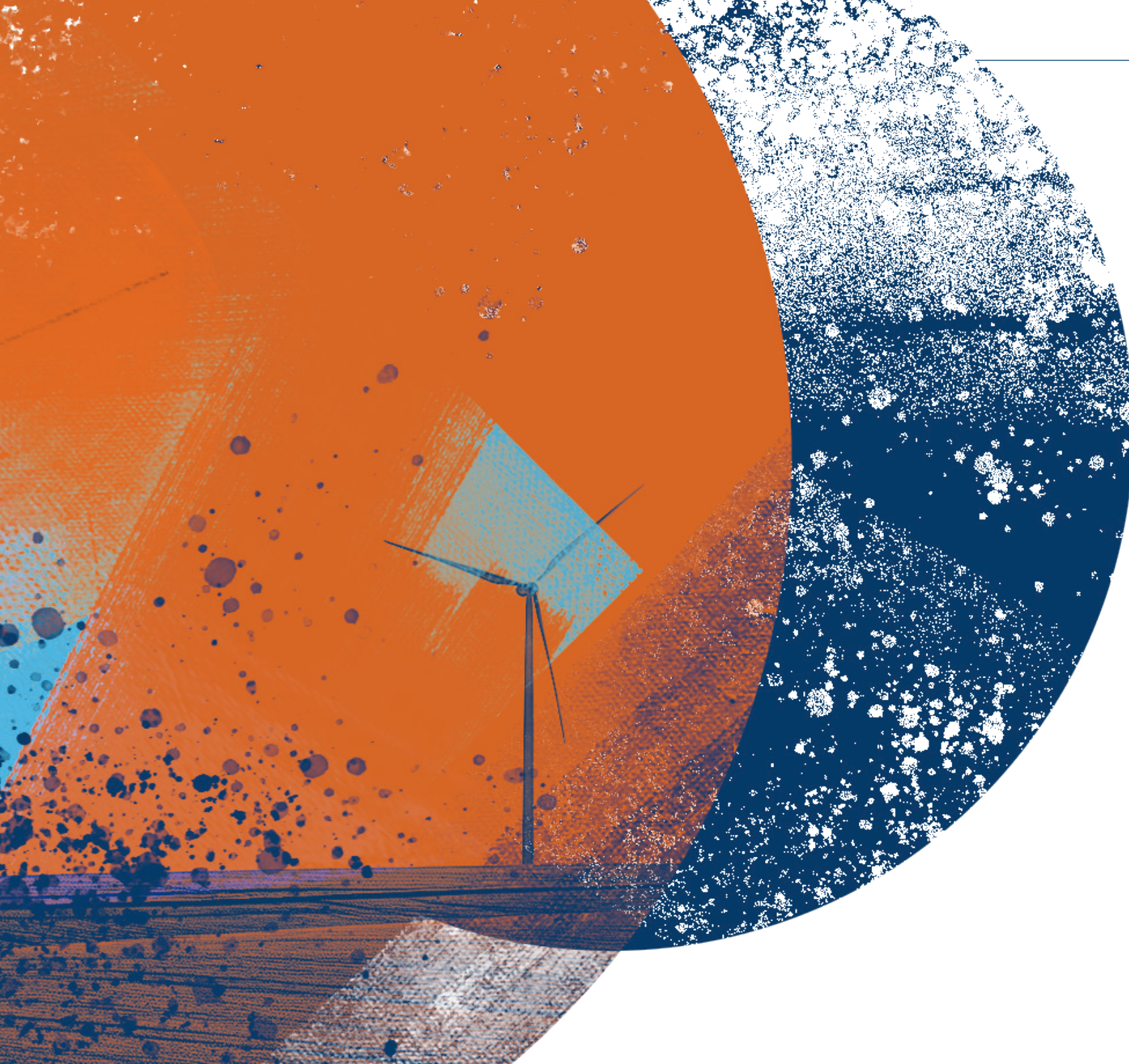
NFU has fully aligned its teaching and learning initiatives (Chapter 4) and University Social Responsibility (USR) programs (Chapter 6) with the SDGs. Looking ahead, the University will continue embedding the SDGs into its institutional governance and strategic development, striving to become a smart and sustainable university that promotes regional co-prosperity while fostering a comprehensive sustainable campus.

SDG Goal	Part I. Sustainability Vision and Annual Strategy	Part II. University Governance and Sustainability Management	Part III. Well-being Campus and Talent Development	Part IV. Educational Innovation and Industry Collaboration	Part V. Green Campus and Environmental Sustainability	Part VI. Social Impact and University Social Responsibility (USR)
SDG1			V	V		V
SDG2			V	V	V	V
SDG3		V	V	V	V	V
SDG4	V	V	V	V	V	V
SDG5		V	V	V		V
SDG6				V	V	V
SDG7				V	V	V
SDG8	V		V	V	V	V
SDG9		V		V	V	V
SDG10			V	V	V	V
SDG11	V			V	V	V
SDG12	V			V	V	V
SDG13				V	V	V
SDG14				V	V	V
SDG15				V	V	V
SDG16	V	V	V	V		V
SDG17	V	V		V	V	V

The background is a complex abstract composition. It features several overlapping circular and semi-circular shapes in shades of blue and orange. Overlaid on these shapes are images of wind turbines, with their blades and towers visible. The entire image is covered with a dense pattern of small, irregular splatters and dots in various colors, including white, blue, and orange, giving it a textured, artistic feel.

01

Sustainability Vision and Annual Strategy



1-1 History and Organizational Structure

National Formosa University (NFU) traces its origins to Yunlin Provincial Junior College of Technology, established in 1980 with five initial departments: Manufacturing Engineering, Mechanical Materials Engineering, Mechanical Design Engineering, Power Mechanical Engineering, and Electrical Engineering. In 2004, the institution was officially upgraded to National Formosa University, with the establishment of four colleges: the College of Humanities and Applied Sciences, College of Engineering, College of Electrical Engineering and Computer Science, and College of Management.

Guided by its motto, "Integrity, Uprightness, Excellence, and Diligence," NFU has consistently embraced a student-centered educational philosophy under the leadership of its successive presidents and the current President, Professor Hsin-Liang Chang. The University is committed to cultivating practice-oriented professionals equipped with interpersonal competence, lifelong learning capabilities, humanistic values, global perspectives, innovative thinking, interdisciplinary integration, digital literacy, and professional expertise. Through close collaboration with industry, NFU continues to nurture talent that strengthens Taiwan's industrial competitiveness and sustainable development.

University Profile

University: National Formosa University (NFU)
Address: No. 64, Wunhua Road, Huwei Township,
Yunlin County 632301, Taiwan
President: Professor Shinn-Liang Chang
Website: <https://www.nfu.edu.tw/>



Official Website



About NFU



Admissions



Sustainability

Faculty and Staff

Full-time
Faculty

365

Part-time
Faculty

237

▪ Note: including contract
teaching faculty

Administrative Staff

272

Total Students

12,003

Student Retention Rate

Academic Year	Daytime Bachelor's Program	Continuing Education Bachelor's Program	Daytime Two-Year Junior College Program	Five-Year Junior College Program
111	95.30 %	84.96 %	97.06 %	92.75 %
112	91.10 %	78.13 %	87.50 %	98.78 %
113	92.72 %	83.16 %	86.49 %	97.75 %
114	94.27 %	81.20 %	80.56 %	97.78 %

Academic Units

4 Colleges

20 Departments

2 Degree Programs

18 Master's Programs

10 In-service Master's Programs

1 Two-Year Junior College
Division (1 Department)

2 Doctoral Programs

1 Doctoral Degree Program

1 Five-Year Junior College
Division (2 Departments)

History of the University

1980 July	- Yunlin Provincial Junior College of Technology was established, with Dr. Tien-Chin Chang appointed as the founding president. - Five departments were established: Manufacturing Engineering, Mechanical Materials Engineering, Mechanical Design Engineering, Power Mechanical Engineering, and Electrical Engineering.	2019	- Received funding through the Ministry of Education's Program for Optimizing Practical Learning Environments in Technological and Vocational Education. - Established the Department of Agricultural Technology and the Two-Year Junior College Program in Electronic Engineering.
1981 July	The institution was renamed National Yunlin Junior College of Technology.	2020	- Established the Doctoral Program in Smart Industry Technology R&D - Launched the Department of Information Engineering in the Five-Year Junior College Division.
1997	Upgraded to National Huwei Institute of Technology. The five-year junior college programs were gradually transformed into four-year and two-year bachelor's programs.	2021	The College of Engineering established the Wo-Hu Elite Program.
2004	Upgraded to National Formosa University (NFU), marking a new stage of institutional development. 2005–2011: Expanded academic programs through the establishment of new doctoral and master's programs, including graduate programs in Mechanical and Electro-Mechanical Engineering, Electrical Engineering, Electronic Engineering, Materials Science and Green Energy Engineering, Business Administration, Aerospace and Electronic Technology, Creative Engineering and Precision Technology, Biotechnology, Information Engineering, Automation Engineering, Vehicle Engineering, Leisure and Recreation, and Finance. Several departments and academic units were also reorganized and renamed to align with emerging educational and industry trends.	2022	The College of Management launched the Smart Innovation Program and the Securities Industry Program.
2012 March	Approved by the Executive Yuan to acquire 17.181 hectares of land for the development of the High-Speed Rail (HSR) Campus in the Huwei HSR Special District.	2023	Completed Phase I, Zone 1 of the HSR Campus construction project.
2013 April	Awarded funding under the Ministry of Education's Development Plan for Paradigm Technological Universities.	2024	Established the Center for Mathematics and Science Education.
2018	- Selected for the Ministry of Education's Higher Education Sprout Project. - The Five-Year Junior College Division was reestablished with the Department of Precision Mechanical Engineering. - The Bachelor's Degree Program in Aircraft Maintenance was launched.	2025	Commenced construction of Phase I, Zone 2 of the HSR Campus.

Organizational Structure

National Formosa University (NFU) comprises four colleges, one general education center, and two teaching centers, which are responsible for academic affairs, teaching, and research. The University also operates 19 administrative units that support institutional governance and administrative services.

★ President

★ Academic Units

College of Electrical Engineering and Computer Science	College of Management	College of Engineering	College of Humanities and Applied Sciences
General Education Center	Language Teaching Center	Center for Mathematics and Science Education	

★ Administrative Units

Office of Academic Affairs	Library	Center for Teaching and Learning Development
Office of Student Affairs	Admissions Center	
Office of General Affairs	Computer and Information Center	Research Center for Intelligent Machinery and Smart Manufacturing
Office of Research and Development	Arts Center	Office of Physical Education
Office of International Affairs	Institutional Development Center	Personnel Office
Office of Industry-Academia Collaboration and Services	Environmental Protection and Occupational Safety and Health Center	Secretariat
Office of Sustainability and Social Responsibility		Accounting Office

Academic Units

Colleges and Academic Programs



College of Electrical Engineering and Computer Science

Department of Computer Science and Information Engineering (Master's Program)
 Department of Electrical Engineering (Master's Program, In-service Master's Program)
 Department of Electro-Optical Engineering (Ph.D. Program in Electro-Optical and Materials Technology, Master's Program, In-service Master's Program)
 Department of Electronic Engineering (Master's Program)
 Five-Year Junior College Programs: Computer Science and Information Engineering; Electronic Engineering



College of Engineering

Department of Mechanical and Computer-Aided Engineering (Master's Program, In-service Master's Program)
 Department of Mechanical Design Engineering (Master's Program)
 Department of Power Mechanical Engineering (Ph.D. Program in Mechanical and Electro-Mechanical Engineering, Master's Program, In-service Master's Program)
 Department of Automation Engineering (Master's Program)
 Department of Materials Science and Engineering (Master's Program in Materials Science and Green Energy Engineering, In-service Master's Program)
 Department of Vehicle Engineering (Master's Program)
 Department of Aeronautical Engineering (Avionics Division, Mechanical Division, Master's Program in Aerospace and Electronic Technology)
 Bachelor's Degree Program in Aircraft Maintenance
 Doctoral Degree Program in Smart Industry Technology R&D
 International Master's Degree Program in Advanced Smart Vehicles
 Five-Year Junior College Program: Precision Mechanical Engineering



College of Management

Department of Industrial Management (Master's Program in Industrial Engineering and Management, In-service Master's Program)
 Department of Information Management (Master's Program, In-service Master's Program)
 Department of Finance (Master's Program)
 Department of Business Administration (Master's Program in Business Administration, In-service Master's Program)

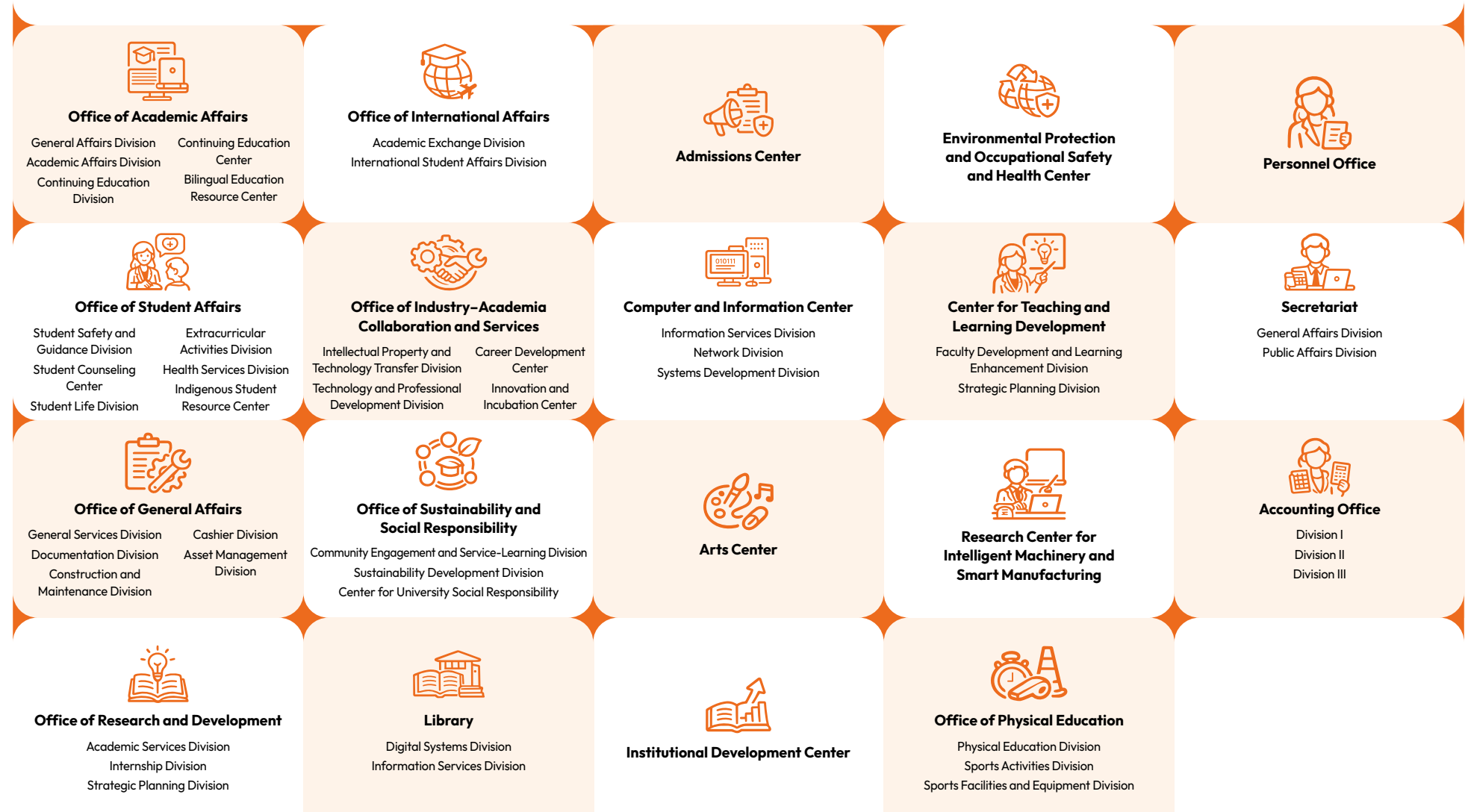


College of Humanities and Applied Sciences

Department of Applied Foreign Languages
 Department of Biotechnology (Master's Program, In-service Master's Program)
 Department of Multimedia Design (Master's Program in Digital Content and Creative Industries)
 Department of Leisure and Recreation (Master's Program, In-service Master's Program)
 Department of Agricultural Technology

Administrative Units

Administrative Structure



1-2 Institutional Development Blueprint

SDGs | 4, 8, 16, 17

SDG Targets | 4.3, 4.4, 4.7, 8.2, 8.5, 8.6, 16.b, 17.14

National Formosa University (NFU) is positioned as a refined university of excellence, guided by its vision of becoming an *i-Best* technological university. Centered on four strategic pillars—talent cultivation, campus culture and environment, research and development, and university governance and administration—NFU has established a comprehensive institutional development framework and management model. Through this strategic blueprint, the University strengthens its distinctive characteristics and competitive advantages, expands its institutional strengths, fulfills its social responsibility, and equips students with the knowledge, competencies, and resilience needed to thrive in a rapidly changing world and meet future challenges.



Vision and Positioning

Building on its long-standing record of academic excellence, National Formosa University (NFU) continues to respond proactively to the evolving higher education landscape and the growing expectations of society. Guided by the i-Best philosophy—innovation, Base, environment, student, and teacher—the University is committed to strengthening its distinctive institutional advantages, deepening the integration of practice-oriented education with industry, fulfilling its social responsibility, and preparing students with the competencies and resilience needed to thrive in a rapidly changing world.

NFU is dedicated to cultivating professionals with interdisciplinary technological expertise and positive societal impact to meet the nation's future workforce needs. Guided by its educational mission and the University motto, "Integrity, Uprightness, Excellence, and Diligence," the University adopts a student-centered approach to develop graduates equipped with eight core competencies: interpersonal communication, self-development, humanities literacy, global mobility, creativity and innovation, interdisciplinary integration, digital literacy, and professional expertise. Through this holistic approach, NFU promotes stronger collaboration between academia and industry, contributes to sustainable industrial development, and enhances national competitiveness.



With the vision of becoming a refined university of excellence guided by the i-Best philosophy, NFU strives for excellence across five key dimensions: innovation, institutional foundations, campus environment, students, and faculty.

Goals and Strategies for Institutional Sustainable Development

To address future challenges in higher education and cultivate high-quality talent that meets the evolving needs of society, NFU has established four strategic development pillars supported by a comprehensive institutional development framework, as illustrated in the figure below.



To achieve its institutional vision, NFU has established four strategic development pillars supported by corresponding implementation strategies.

Four Strategic Development Pillars

1. Talent Cultivation—Promoting Excellence in Teaching, Holistic Student Development, and Global Perspectives

1. Strengthen industry-oriented education by enhancing students' foundational technical competencies and cultivating innovative talent through curriculum enhancement, industry-linked academic programs, and high-quality learning environments.
2. Expand global engagement through international industry-academia partnerships and dual-degree programs with overseas universities. The development of the High-Speed Rail (HSR) Campus further enhances NFU's attractiveness to international students.
3. Establish a comprehensive quality assurance system to continuously improve teaching effectiveness and safeguard student learning outcomes.

2. Campus Culture and Environment—Developing an Arts-Enriched Campus and Promoting the Well-being of Faculty, Staff, and Students

1. Foster a supportive teaching and learning environment by providing high-quality campus facilities that enhance teaching, research, and professional development for faculty while enriching students' educational experiences.
2. Continuously upgrade teaching and research facilities, expand library collections and digital learning resources, and promote an arts-enriched campus through experiential and contextual learning to enhance learning effectiveness and campus life.
3. In addition to strengthening institutional governance and financial sustainability, cultivate a strong sense of community, institutional identity, collaboration, and shared commitment among faculty, staff, and students.

3. Research and Development—Pursuing Academic Excellence and Strengthening Industry-Academia Collaboration

1. Continue investing in strategic research areas to build internationally recognized research strengths and establish distinctive areas of academic excellence.
2. Promote international academic collaboration while responding to emerging technologies and industry trends through forward-looking research initiatives.
3. Integrate institutional resources across colleges and departments, encourage interdisciplinary research teams, and strengthen the University's overall research and innovation capacity.

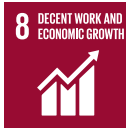
4. University Governance and Administration—Strengthening Institutional Governance, Digital Transformation, and Financial Sustainability

1. Continuously refine institutional regulations and governance mechanisms to improve administrative effectiveness, enhance service quality, and support professional university management.
2. Accelerate the digital transformation of university administration by streamlining administrative processes and improving operational efficiency.
3. Promote transparent and accountable financial management by establishing effective financial governance mechanisms, optimizing the allocation of resources, and strengthening the University's financial sustainability.

Five Strategic Dimensions Aligned with the United Nations SDGs and Taiwan's Sustainable Development Goals

Guided by the i-Best philosophy, National Formosa University (NFU) has established five strategic dimensions to advance the development of an innovation-driven industry-academia campus, while promoting a smart campus and smart learning environment. The five strategic dimensions—Innovation, Institutional Foundations, Campus Environment, Students, and Faculty—are closely aligned with the United Nations Sustainable Development Goals (SDGs) and Taiwan's Sustainable Development Goals, providing the strategic framework for the University's sustainable development initiatives. The alignment is presented in the following table.

Alignment of the Five Strategic Dimensions with the United Nations SDGs and Taiwan's Sustainable Development Goals

Five Strategic Dimensions	Development Focus	United Nations Sustainable Development Goals (SDGs)	Taiwan's Sustainable Development Goals (T-SDGs)
innovation	Advance digital transformation to innovate teaching and learning, strengthen institutional research, strategically guide university development, respond to societal needs, and enhance public service effectiveness.	 	Core Goal 1. Strengthen Social and Economic Protection for Vulnerable Groups
Base	Leverage the University's distinctive strengths to strengthen industry-academia collaboration, enhance employability, support industrial upgrading, expand international engagement, strengthen the NFU brand, and fulfill University Social Responsibility (USR).	 	- Core Goal 2. End Hunger, Achieve Food Security, Improve Nutrition, and Promote Sustainable Agriculture - Core Goal 4. Ensure Inclusive, Equitable, and Quality Education and Promote Lifelong Learning Opportunities for All
environment	Enhance campus infrastructure and digital technologies by developing a smart campus, strengthening industry-oriented teaching environments, establishing innovation hubs for industry cluster R&D, and leveraging the HSR Campus to expand collaboration among government, industry, academia, and research institutions.	 	- Core Goal 5. Achieve Gender Equality and Empower All Women and Girls - Core Goal 6. Ensure Environmental Quality and the Sustainable Management of Environmental Resources
student	Provide comprehensive academic and career support throughout the student journey, foster an arts-enriched and student-centered campus, support disadvantaged students, strengthen alumni engagement, cultivate student excellence, and empower the next generation to create positive social impact.	 	- Core Goal 8. Promote Inclusive and Sustainable Economic Growth, Enhance Labor Productivity, and Ensure Decent Work for All - Core Goal 9. Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization, and Foster Innovation
teacher	Support faculty career development through diverse incentive mechanisms, strengthen teaching excellence, foster the distinctive strengths of academic departments, encourage participation in industry-academia research teams, secure nationally prioritized research initiatives, and expand domestic and international collaboration.	 	- Core Goal 10. Reduce Inequality Within and Among Countries - Core Goal 11. Make Cities and Human Settlements Inclusive, Safe, Resilient, and Sustainable
			- Core Goal 12. Promote a Green Economy and Ensure Sustainable Consumption and Production Patterns - Core Goal 13. Strengthen Climate Change Mitigation and Adaptation to Address Climate Change and Its Impacts

High-Speed Rail (HSR) Campus

As National Formosa University (NFU) continues to expand in both scale and academic excellence, the University is proactively strengthening its international competitiveness to meet the evolving demands of global higher education. With the strong support of local governments and community stakeholders, the Ministry of National Defense transferred 17.181 hectares of the former Huwei Air Force Base to NFU at no cost. This milestone enabled the development of the High-Speed Rail (HSR) Campus, a modern and internationally oriented campus designed to provide a high-quality environment for technological and vocational education.

The HSR Campus serves as a strategic platform for talent cultivation, research and innovation incubation, industry-academia collaboration, and international partnerships. Building upon the distinctive strengths of local industries while embracing global opportunities, the campus is envisioned as a world-class learning environment with strong regional characteristics and international competitiveness. Its development is guided by four strategic principles: Strengthening connections with emerging industries; Promoting regional co-development and community engagement; Fostering creativity and innovation; and Expanding international collaboration and exchange. To realize these objectives, the HSR Campus integrates five core functions: Cultivating interdisciplinary talent with strengths in both technology and the humanities; Advancing international research collaboration, talent development, and academic exchange; Providing global industry-academia services and facilitating knowledge and cultural exchange; Supporting innovation, creative design, experiential learning, and practical training; and Creating an aesthetically inspiring campus with comprehensive residential and recreational facilities.

The total planned investment for the HSR Campus is NT\$991 million, with Phase I funded at NT\$820 million. The first phase is scheduled for completion and commencement of operations in 2026. Expected Benefits:

Enhance the quality of teaching, research, and internationalization.

Strengthen the regional knowledge-based economy and innovation ecosystem.

Develop regional talent and stimulate local economic growth.

Reinforce industrial clustering and supply chain synergies within the Huwei Base of the Central Taiwan Science Park.

Maximize the sustainable utilization and development value of land within the Yunlin HSR Station Special District.

► Construction Progress of the High-Speed Rail (HSR) Campus



Workshop Buildings 2 and 3 ◀

Research Center for Intelligent Machinery and Smart Manufacturing and Machining Center



▲ Workshop Building - Aircraft Maintenance Training Center



▲ International Industry-Academia Collaboration Building



► Workshop Building - Aircraft Maintenance Training Facility



► Workshop Building - Aircraft Maintenance Training Facility

1-3 Sustainability Development Goals and Strategies

SDGs | 4, 11, 12, 16, 17

SDG Targets | 4.7, 11.3, 11.a, 12.6, 16.b, 17.14

To advance the United Nations Sustainable Development Goals (SDGs) while integrating the three core dimensions of Environmental, Social, and Governance (ESG), National Formosa University (NFU) has established the following sustainability development goals and strategies.

Goal

1. Establish Strategic Directions for Sustainability and Social Engagement

- (1) Identify and align university initiatives with local characteristics and community needs.
- (2) Develop strategic plans aligned with the United Nations Sustainable Development Goals (SDGs).
- (3) Formulate the University's strategic priorities and implementation framework for University Social Responsibility (USR).

2. Strengthen Support for Sustainability-Related Teaching and Research

- (1) Promote interdisciplinary educational innovation by developing sustainability-focused interdisciplinary programs across colleges and departments.
- (2) Support innovative social engagement initiatives by funding faculty- and student-led social engagement projects and courses.
- (3) Enhance faculty capacity for social engagement through regular exhibitions, seminars, workshops, and professional learning activities.

3. Integrate Institutional Resources to Advance Sustainable Development

- (1) Strengthen incentive mechanisms by incorporating USR achievements into faculty promotion and recognizing excellence in USR teaching.
- (2) Promote campus sustainability by coordinating and advancing institutional sustainability and University Social Responsibility initiatives.
- (3) Advance sustainability governance by strengthening the capacity of administrative and academic units to implement the SDGs and publishing the University's annual Sustainability Report.

Goal

Strategies

External

Position NFU as a regional think tank for Yunlin, connecting with domestic and international organizations advancing the Sustainable Development Goals (SDGs) to foster collaborative development among communities, industry, and global partners.

Internal

Strengthen faculty and student USR teams while promoting cross-departmental collaboration to advance SDG-related initiatives across the University.

Strategy

Implementation of Sustainability Development

1 Establishment of the Office of Sustainability and Social Responsibility

To effectively implement its sustainability development strategy, National Formosa University (NFU) established the Preparatory Office of Sustainability and Social Responsibility in March 2022, followed by the official establishment of the Office of Sustainability and Social Responsibility in August 2022. NFU became the first university in Taiwan to establish a dedicated first-level administrative unit for sustainability and social responsibility. The Office comprises three divisions: University Social Responsibility (USR) Center; Division of Community Engagement and Service-Learning; and Division of Sustainable Development. The Office coordinates University-wide sustainability initiatives and is responsible for advancing the United Nations Sustainable Development Goals (SDGs) and promoting University Social Responsibility (USR). Through an integrated approach encompassing the three pillars of Environmental (E), Social (S), and Governance (G), the Office leads institutional efforts to achieve all 17 SDGs.

2 Establishment of the Sustainability and Social Responsibility Committee

In 2023, NFU established the Sustainability and Social Responsibility Committee to strengthen institutional governance and strategic planning for sustainability. The Committee is chaired by the President, with the Dean of the Office of Sustainability and Social Responsibility serving as Executive Secretary. Ex officio members include the Vice Presidents, Secretary-General, senior administrative leaders, college deans, and representatives from the Student Association and Student Council. In addition, four external experts in sustainability serve as advisory members. In 2026, the Committee convened to review and approve the University's 2025 Sustainability Report. The Committee's responsibilities include:

(1) Formulating institutional sustainability and University Social Responsibility (USR) goals and strategies.

(2) Developing institutional support mechanisms for sustainability and social responsibility.

(3) Reviewing and approving the University's annual Sustainability Report.

(4) Providing recommendations on major sustainability and University Social Responsibility initiatives.

3 University Social Responsibility (USR) Programs

(1) Ministry of Education Fourth-Phase USR Program

- Sustainability-Focused Program: Co-Learning for Agricultural Revitalization: Creating Shared Value from the Green Heart to the Green Port
- University Features (Seed Program): Blooming with Carbon: Sustainable Transformation of Yunlin's Floriculture Industry and Green Talent Development
- University Features (Seed Program): Smart Low-Carbon and Water-Saving Social Practice Program for Shuijing Village
- University Features (Seed Program): Neo Sugar, Reviving Culture: Eco-museum Action in Huwei Sugar Town

(2) USR Hub Projects

- Toy Yunlin: Co-Creating an Empathy-Based Educational Blockchain
- Cultural Regeneration for New Immigrant Women in Yunlin
- Bringing University Energy to Rural Communities: Revitalizing the Dounan Warehouse District
- Building Sustainable Soil Systems for Environmentally Friendly Local Agriculture

(3) Higher Education Sprout Project – Objective 2 (Fulfillment of Social Responsibility)

Yunlin Action Think Tank: Sustainable Coexistence in the Huwei River Basin



NFU Sustainability
Reports and Sustainability
Achievements Over the
Years



Promotional Video of the
Office of Sustainability
and Social Responsibility

1-4 Stakeholder Engagement

SDGs | 16, 17

SDG Targets | 16.7, 17.17

Stakeholders are individuals or groups that either influence or are influenced by the operations and development of National Formosa University (NFU). In identifying its key stakeholders, NFU follows the AA1000 Stakeholder Engagement Standard (AA1000SES, 2015). Based on the functions of administrative and academic units, the University identifies stakeholder groups with the most frequent interactions and the greatest mutual influence. Through internal discussions and evaluation, 10 key stakeholder groups were identified: Students, Parents, Faculty, Administrative Staff, Local Communities, Alumni, Industry Partners, Government Agencies, Non-Governmental Organizations (NGOs), and Suppliers and Contractors.

NFU values open dialogue and maintains strong relationships with all stakeholder groups through a variety of communication channels. These mechanisms ensure that stakeholders can effectively express their concerns, expectations, and recommendations, while enabling the University to respond in a timely and transparent manner. Through continuous engagement and communication, NFU enhances stakeholder understanding of the University's governance, operations, and sustainability initiatives, while strengthening mutual trust and long-term partnerships.

Stakeholder Communication Channels and Frequency

Stakeholder Group	Significance to NFU	Communication Channels	Communication Frequency
Students	Guided by its motto, "Integrity, Righteousness, Excellence, and Diligence," NFU embraces a student-centered educational philosophy and is dedicated to cultivating practice-oriented professionals who meet the evolving needs of society and industry.	University Website	At Any Time
		Departmental Email Accounts	At Any Time
		Student Grievance System	At Any Time
		Faculty Advisor Office Hours	As Needed
		University Council Meeting	Each Semester
		Service Satisfaction Survey	Each Semester
		Teaching Evaluation Surveys	Each Semester
		Campus App ("Feedback" Feature)	At Any Time
		Meet the President	Annually
		Student Rights Assembly	Annually
		Forum for On-campus Residents and Off-campus Tenant Students	Each Semester



Stakeholder Group	Significance to NFU	Communication Channels	Communication Frequency
Parents	Parents are key stakeholders in the educational process. NFU maintains effective communication mechanisms to ensure parents understand the University's educational philosophy and work in partnership with the University to support students' learning and development.	University Website	At Any Time
		Departmental Email Accounts	At Any Time
		Departmental Freshman Parent Orientation Meetings	Annually
		University-wide Parent Forum	Annually
Faculty	Faculty members play a vital role in the University's teaching, research, and academic development. NFU fosters a collaborative partnership by providing comprehensive well-being programs, professional development opportunities, and transparent performance evaluation and promotion systems to create an excellent academic and working environment.	Faculty Grievance System	At Any Time
		University Council Meeting	Each Semester
		Administrative Meetings	Monthly
		Faculty Advisor Meetings	Each Semester
		Faculty Evaluation Committee	Each Semester
		Faculty Performance Evaluation	Every Three Years
Administrative Staff	Administrative staff play a vital role in supporting the University's administrative operations. NFU fosters a collaborative partnership by providing comprehensive well-being programs, professional development opportunities, and transparent performance evaluation and promotion systems to create an excellent working environment.	Staff Grievance System	At Any Time
		University Council Meeting	Each Semester
		President's Forum	Once a Year
		Labor-Management Meetings	Quarterly
		Performance Evaluation Committee	As Needed
Local Communities	As part of its commitment to University Social Responsibility (USR), NFU actively engages with local communities by co-organizing community activities and providing community services, fostering an inclusive and sustainable community.	University Website	At Any Time
		Departmental Email Accounts	At Any Time
		Interviews, Forums, and Community Service Activities	As Needed
Alumni	Alumni support the University's development by contributing to career development, innovation, and the promotion of NFU's vision and reputation. The University maintains effective communication channels to strengthen alumni engagement and foster long-term relationships.	University Website	At Any Time
		Departmental Email Accounts	At Any Time
		Alumni Information Platform	At Any Time
		Graduate Destination Survey	Once a Year

Stakeholder Group	Significance to NFU	Communication Channels	Communication Frequency
Industry Partners	Industry partners play a key role in advancing NFU's innovation, research, and student talent development. The University maintains close partnerships with industry through industry-academia collaboration, research partnerships, and internship opportunities.	University Website	At Any Time
		Departmental Email Accounts	At Any Time
		Employer Satisfaction Survey	As Needed
		Office of Industry-Academia Collaboration and Services	At Any Time
		Career Development Center	At Any Time
		Office of Research and Development	At Any Time
Government Agencies	Government agencies play a pivotal role in supporting the University's development through policy guidance and resource allocation. NFU works closely with government agencies to enhance teaching and research excellence, promote regional development, advance social progress, and foster technological innovation.	University Website	At Any Time
		Teaching Evaluation	As Needed
		Professional Accreditation by External Accreditation Bodies	As Needed
		Government Public Hearings, Consultation Meetings, and Briefing Sessions	As Needed
Non-Governmental Organizations (NGOs)	Non-Governmental Organizations (NGOs) are important partners in addressing societal needs and advancing public well-being. Through collaboration with NGOs, NFU strengthens its social impact and responds more effectively to community needs.	University Website	At Any Time
		Departmental Email Accounts	At Any Time
Suppliers and Contractors	Suppliers and contractors are essential partners in supporting the University's operations. NFU works closely with its suppliers and contractors to ensure operational efficiency and the effective use of resources.	University Website	At Any Time
		Departmental Email Accounts	At Any Time
		Office of General Affairs	At Any Time

1-5 Identification of Material Topics

To identify the topics that have the most significant economic, environmental, and social impacts, National Formosa University (NFU) conducted a materiality assessment in accordance with the Global Reporting Initiative (GRI) Universal Standards, specifically GRI 3: Material Topics 2021, issued by the Global Sustainability Standards Board (GSSB).

Step

1

Understand the Organizational Context and Identify Sustainability Topics

1

Collect information on the University's activities and sustainability context

Drawing on the University's Medium- and Long-Term Institutional Development Plan, Annual Achievement Reports, the United Nations Sustainable Development Goals (SDGs), and sustainability reports published by higher education institutions and enterprises, NFU identified 23 sustainability topics covering three key dimensions: university governance, environmental sustainability, and social responsibility.

2

Identify Stakeholders

In accordance with the AA1000 Stakeholder Engagement Standard (AA1000SES, 2015), NFU identified 10 key stakeholder groups: students, parents, faculty, administrative staff, local communities, alumni, industry partners, government agencies, non-governmental organizations (NGOs), and suppliers and contractors.

Step

2

Assess the Significance of Sustainability Impacts

1

Stakeholder Survey and Analysis

A questionnaire survey was conducted to assess stakeholders' level of concern regarding the identified sustainability topics. A total of **225** valid responses were collected from the 10 stakeholder groups.

2

Assess NFU's Impacts on Sustainability Topics

Through Administrative Meetings and cross-departmental discussions, NFU invited leaders from both administrative and academic units to evaluate the significance and impacts of each sustainability topic. The assessment considered both the positive and negative impacts of each topic on the University's operations and incorporated the professional judgments and recommendations of relevant administrators. The results served as the basis for identifying the University's material topics and developing its sustainability strategies.

3

Prioritize Sustainability Topics

Based on the survey results from stakeholders and University administrators, NFU analyzed the findings and developed a materiality matrix using two assessment dimensions: Stakeholders' level of concern regarding sustainability topics and Significance of NFU's impacts on sustainability topics.

Step

3

Determine Material Topics

1

Confirm Material Topics

The Sustainability and Social Responsibility Committee reviewed and confirmed NFU's 2025 material topics. Material topics were selected across the three sustainability dimensions—university governance, environmental sustainability, and social responsibility—with a principle of identifying at least two material topics within each dimension.

2

Material Topic Management

For each material topic, the report presents the corresponding impacts, management approaches and actions taken, as well as references to the relevant sections of this Sustainability Report.

NFU Sustainability Topics



Stakeholder Concern Assessment

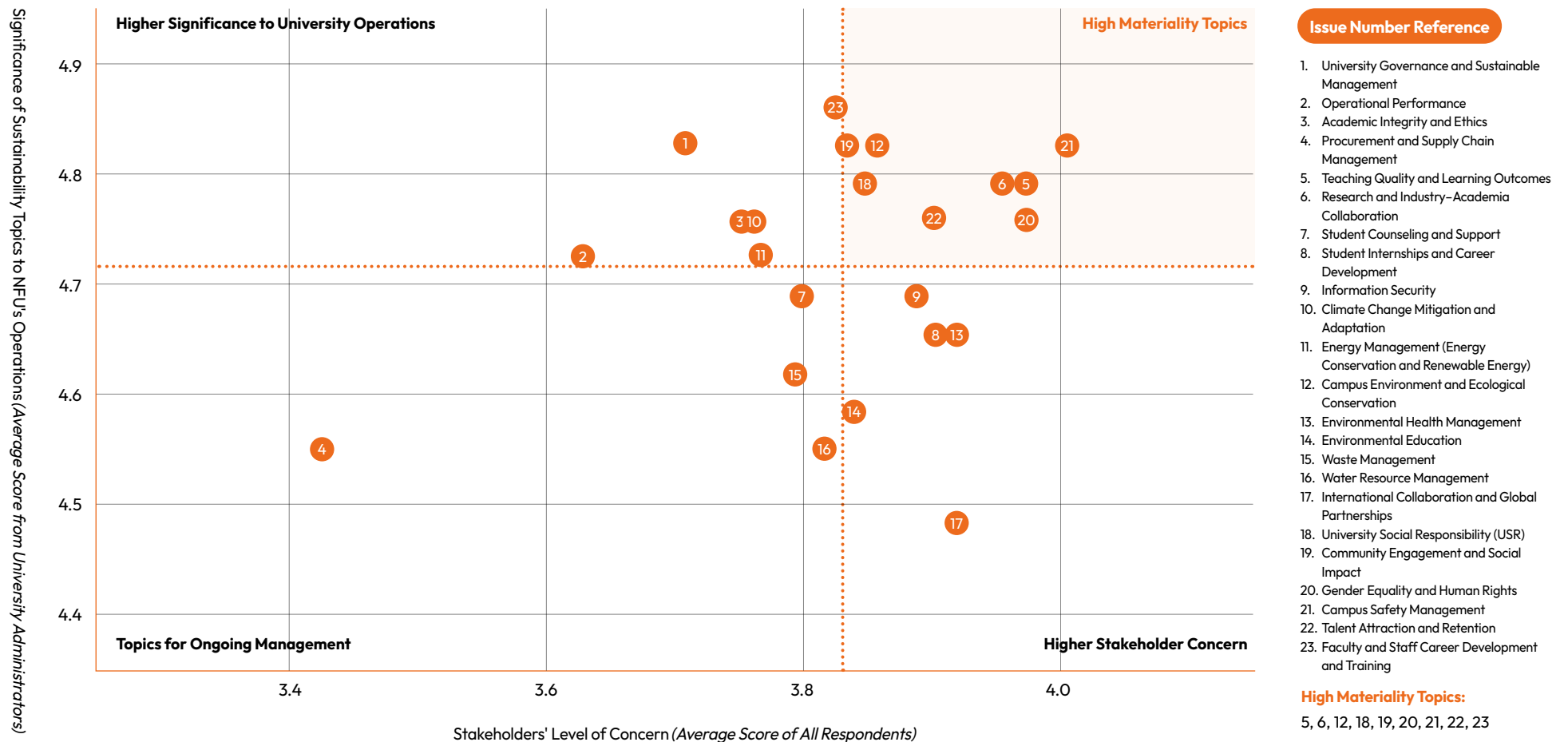
To better understand stakeholders' concerns regarding NFU's sustainability topics and identify the University's potential impacts on the environment and society, NFU conducted the National Formosa University Sustainability Report Stakeholder Survey across its 10 key stakeholder groups. A total of 225 valid responses were collected. The stakeholders' priorities regarding the identified sustainability topics are presented below.



Prioritization of Sustainability Topics

Based on the survey results from stakeholders and University administrators, NFU conducted a materiality assessment using a materiality matrix. The matrix was developed based on two assessment dimensions: stakeholders' level of concern regarding sustainability topics, which reflects the significance of NFU's impacts on the economy, the environment, and society, and the significance of sustainability topics to the University's operations, as assessed by University administrators, which reflects the influence of external sustainability issues on NFU's operations. Following review and approval by the Sustainability and Social Responsibility Committee, nine material topics were identified. Across the three sustainability dimensions—University Governance, Environmental Sustainability, and Social Responsibility—the three highest-ranked topics within each dimension were designated as NFU's material topics for 2025.

Materiality Matrix of NFU's 2025 Sustainability Topics



NFU's Material Topics and Management Approach

For 2025, National Formosa University (NFU) identified nine material topics through its materiality assessment. These are Teaching Quality and Learning Outcomes, Research and Industry–Academia Collaboration, Campus Environment and Ecological Conservation, University Social Responsibility (USR), Community Engagement and Social Impact, Gender Equality and Human Rights, Campus Safety Management, Talent Attraction and Retention, and Faculty and Staff Career Development and Training. The list of material topics is presented below. The management approach, including the identified impacts, actions taken, and related performance disclosures for each material topic, is described at the beginning of the corresponding chapter of this Sustainability Report.

Material Topic	Corresponding GRI Standard	Significance to NFU	Management Approach (<i>Report Reference</i>)
Teaching Quality and Learning Outcomes	Organization-specific Topic	To enhance teaching quality and establish distinctive educational strengths, NFU actively integrates teaching resources, strengthens general education and language proficiency, promotes diverse arts and cultural activities, and expands international academic collaboration to cultivate well-rounded graduates with global competitiveness.	Chapter 4 Sections 4-2, 4-6
Research and Industry–Academia Collaboration	GRI 203; Organization-specific Topic	To achieve the University's vision of developing internationally recognized research excellence and driving regional industrial development, NFU integrates the resources of the Office of Research and Development, the Office of Industry–Academia Collaboration and Services, and research centers to strengthen research capacity while promoting academic research, industry collaboration, and technology transfer.	Chapter 4 Sections 4-3, 4-4, 4-5
Campus Environment and Ecological Conservation	GRI 403; Organization-specific Topic	NFU continuously enhances campus landscapes and environmental quality, promotes ecological education, and fosters a sustainable and inclusive campus. The High-Speed Rail (HSR) Campus integrates sustainable building design with natural ecosystems to create an environmentally sustainable campus.	Chapter 5 Sections 5-1, 5-2, 5-4, 5-5
University Social Responsibility (USR)	GRI 413	NFU established the Office of Sustainability and Social Responsibility to deepen its engagement with Yunlin County by transforming academic expertise into practical actions that support regional development and foster a mutually beneficial partnership between the University and local communities.	Chapter 6 Sections 6-2, 6-3
Community Engagement and Social Impact	GRI 413	NFU encourages student organizations to integrate the Sustainable Development Goals (SDGs) with local characteristics through community service, rural outreach, and environmental initiatives, thereby strengthening students' civic responsibility, service capabilities, and critical reflection.	Chapter 6 Sections 6-2, 6-3
Gender Equality and Human Rights	GRI 405; GRI 406	NFU is committed to eliminating gender discrimination, safeguarding fundamental human rights, promoting gender equality, and fostering a safe, inclusive, and respectful learning and working environment.	Chapter 3 Section 3-3
Campus Safety Management	GRI 401; GRI 403; GRI 405	NFU is committed to ensuring the health, safety, and well-being of faculty, staff, and students by maintaining a safe and healthy campus environment and implementing comprehensive occupational safety and health management measures.	Chapter 3 Section 3-5
Talent Attraction and Retention	GRI 401; GRI 403; GRI 405	To attract and retain outstanding talent, NFU provides competitive compensation and benefits in accordance with relevant regulations while implementing a flexible salary system that recognizes excellence in teaching, research, and service.	Chapter 3 Sections 3-1, 3-2
Faculty and Staff Career Development and Training	GRI 401; GRI 405	Recognizing that faculty and the campus environment are essential to educational quality, NFU actively provides supportive resources and professional development opportunities to enhance teaching, research, career development, and overall institutional effectiveness.	Chapter 3 Section 3-2



02

**University Governance and
Sustainability Management**

Management of Material Topics

Sustainability Dimension	University Governance	Corresponding SDGs
Material Topic	University Governance and Sustainable Management	  
Corresponding GRI Standards	GRI 2-22, 23, 24, 25	  
Policy and Commitment	Guided by its Medium- and Long-Term Institutional Development Plan, NFU aligns its institutional development with global sustainability trends by establishing a sustainability vision, strategic objectives, and implementation strategies to build a sustainability-driven university through precision empowerment.	- Talent Development: Promote excellence in teaching, holistic student development, and international perspectives. - Campus Culture and Environment: Develop a high-quality artistic campus while safeguarding the development and well-being of faculty, staff, and students. - Research and Development: Pursue academic excellence while strengthening industry-academia collaboration and cooperative education. - University Administration: Strengthen institutional governance, advance digital transformation of administrative services, and ensure transparent and accountable financial management.
Grievance Mechanisms	- University Council Meetings - Meet the President and President's Forum - NFU Express Service Platform: https://eisms.nfu.edu.tw/login	

Actions and Achievements

NFU's 2025–2031 Medium- and Long-Term Institutional Development Plan (Academic Years 2024–2030) is publicly available on the website of the Institutional Development Center.



Since 2023, NFU has published an annual Sustainability Report, which is available on the website of the Office of Sustainability and Social Responsibility (OSSR).



2-1 University Governance

SDGs | 4, 5, 16, 17

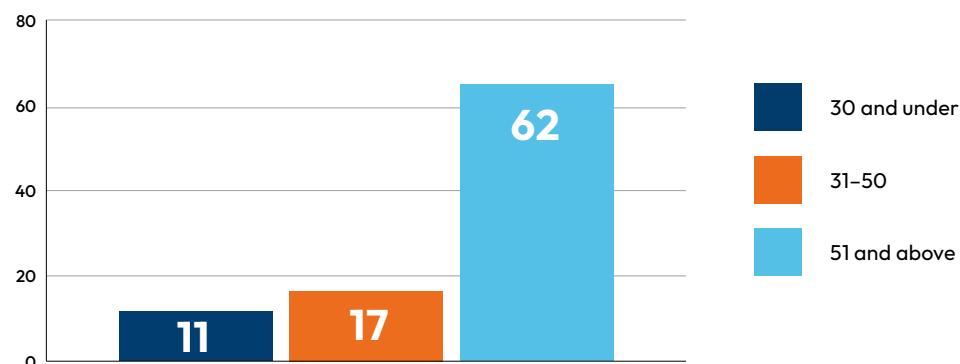
SDG Targets | 4.3, 4.4, 5.5, 16.6, 17.17

In accordance with Article 31 of the Organizational Regulations of National Formosa University, the University has established the University Council as its highest deliberative body for major institutional affairs. The Council is composed of the President, Vice Presidents, faculty representatives, academic and administrative leaders, research personnel representatives, staff representatives, student representatives, and other relevant members.

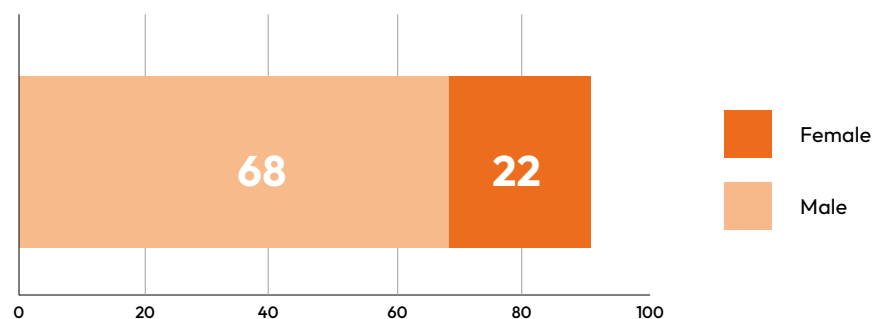
In 2025, the University Council convened two meetings. Major resolutions approved during the year included:

1. Approval of the 2024 University Endowment Fund Performance Report.
2. Approval of the establishment of a two-year daytime associate degree program in the Department of Agricultural Technology beginning in Academic Year 2028, and a two-year in-service bachelor's completion program beginning in Academic Year 2030.
3. Approval of the 2025–2031 Medium- and Long-Term Institutional Development Plan.
4. Approval of the 2026 Financial Plan Report.
5. Approval of 22 proposals concerning the revision or repeal of University regulations, including: 4 proposals related to the University's Organizational Regulations and administrative organizational policies; 5 proposals concerning academic affairs and student rights; 10 proposals regarding faculty personnel, appointment, and evaluation policies; and 3 proposals covering other institutional regulations, including gender equality, the appointment of distinguished professors, and appeal procedures.

Age Distribution



Gender Distribution



University Development Forum

NFU organizes an annual University Development Forum to strengthen institutional governance, promote strategic planning, and enhance the University's competitiveness. The theme of the 2024–2025 Academic Year Forum was "Advancing Strategic Priority Areas and Strengthening Smart and Innovative Education for the Future." The forum was led by the President and featured distinguished experts with extensive academic and administrative experience, providing valuable insights into higher education, emerging technologies, and institutional governance.

Dr. Li-Ping Chi, former Director of the Aeronautical Systems Research Division at the National Chung-Shan Institute of Science and Technology (NCSIST) and current Director of the Angel Project, delivered a keynote speech entitled "Global Trends in Unmanned Aerial Systems (UAS): Implications for Higher Education." Drawing upon international developments in drone technologies and their applications, particularly lessons from the Russia-Ukraine conflict, Dr. Chi discussed global trends in UAS development, Taiwan's competitive advantages, and the current status of Taiwan's drone industry. He also proposed strategic recommendations for universities, including promoting interdisciplinary integration and innovation, participating in national science and technology initiatives, strengthening global competitiveness, fostering cross-disciplinary education, supporting industrial development, and cultivating regional industrial clusters.

Ms. Yu-Hui Yang, Director General of the Department of Technological and Vocational Education, Ministry of Education, delivered a keynote address on "Key Considerations for University Regulations and Administrative Governance." She emphasized the importance of law-based administration, regulatory compliance, and timely adaptation to evolving legal requirements. Her presentation also highlighted the need for effective crisis awareness and sound decision-making in university governance.

Using practical examples—including faculty promotion criteria, university endowment fund management, procurement practices, University Council operations, presidential and dean selection procedures, institutional evaluation, and faculty ethics—Director General Yang shared recommendations on regulatory compliance, governance transparency, institutional accountability, and risk management. She encouraged the University to establish clear institutional regulations, ensure legal expertise in governance processes, and strengthen ethical standards in academic administration.

The forum provided participants with valuable perspectives on technological innovation, higher education governance, and institutional development through expert presentations supported by empirical evidence and practical case studies. It also reinforced the importance of strategic thinking, legal compliance,

and collaborative governance while offering practical recommendations to support NFU's long-term institutional development and sustainable growth.



University Development Forum –
Session I



University Development Forum –
Session III



University Development Forum –
Session II



University Development Forum –
Session IV

Participation in Professional Associations and External Organizations

To promote resource sharing, strengthen collaborative partnerships, and enhance institutional development, NFU actively participates in a wide range of professional associations and external organizations. Through these engagements, the University exchanges the latest information, shares best practices, and fosters mutual learning with partner institutions. These collaborative networks contribute to improving NFU's educational quality, institutional governance, and academic excellence. The major organizations in which NFU has participated in recent years are listed in the table below.

NFU's Participation in External Organizations

Organization	Role / Membership Status
Changhua–Yunlin–Chiayi University Alliance	Chair
Central Taiwan Technological Universities Alliance	Member
Taiwan Green University Alliance	Member
Taiwan E-Security Analysis and Management Association (ESAM)	Member
Yunlin National University Alliance	Alliance Member
Yunlin Government–Academia–Healthcare Collaboration Platform	Alliance Member
National University System of Taiwan	Alliance Member
Southern Taiwan Science Park Industry–Academia Association	Executive Director
Association of National Universities of the Republic of China	Supervisor
Association of National Universities of Science and Technology of the Republic of China	Director
Agricultural Biotechnology Park Industry–Academia Association	Member
Association of Arts Centers of Colleges and Universities, Republic of China	Member
Taiwan Higher Education Society	Member



▲ NFU Participates in Taiwan's Largest National University System

Organization	Role / Membership Status
Central Taiwan Science Park Industry–Academia Training Association	Director
Taiwan Industry–Academia Cooperation Advancement Association	Member
International Innovation and Entrepreneurship Development Association	Member
Precision Engineering Society of Taiwan	Member
The Phi Tau Phi Scholastic Honor Society of the Republic of China	Member
Society of Theoretical and Applied Mechanics, R.O.C.	Member
Library Association of the Republic of China (Taiwan)	Member
Chinese Society of Mechanical Engineers	Member
Chinese Institute of Engineers	Member
Taiwan Science Park Industries Association	Member
Institute of Engineering Education Taiwan (IET)	Director
Taiwan Drone Technology Development Association	Member
Chiayi County Asia UAV AI Innovation Park Manufacturers Association	Member

2-2 Risk Management and Internal Control

SDGs | 16

SDG Targets | 16.6

To respond proactively to a rapidly changing external environment, NFU regularly reviews the internal strengths and weaknesses, as well as the external opportunities and threats, that may influence its institutional development. A comprehensive SWOT analysis is conducted to evaluate the University's strategic position, and the results are incorporated into the Medium- and Long-Term Institutional Development Plan as the basis for formulating institutional development strategies.

Guided by this long-term development plan, NFU is committed to becoming a distinctive university of science and technology that cultivates professionals with innovation, global competence, and a strong commitment to their careers. By pursuing balanced excellence in teaching and research, industry-academia collaboration, continuing education, and community service, the University strives to become a high-quality, research-oriented university of science and technology with distinctive strengths and international competitiveness.

Internal Control

NFU has established an Internal Control Task Force to develop and maintain an effective internal control system that supports regulatory compliance, strengthens governance, prevents misconduct, enhances administrative efficiency, and ensures effective oversight. In addition, an Internal Audit Task Force has been established to evaluate the implementation and effectiveness of the internal control system and to provide timely recommendations for continuous improvement.

The University has implemented an Internal Control Manual (Version 13.0, revised on October 28, 2025). Under this framework, each administrative and academic unit identifies, analyzes, and evaluates operational risks based on its organizational objectives. Key risk areas are identified, and appropriate control measures are designed to establish an effective and well-structured internal control system. In 2025, a total of 47 control activities were incorporated into the University's internal control framework.

During 2025, all first-level administrative units completed their annual self-assessments of internal controls. The results were consolidated by the coordinating office, reviewed and approved by the Internal Control Task Force, and subsequently submitted to the Internal Audit Task Force for follow-up on corrective actions and improvement recommendations. The Internal Audit Task Force conducts independent internal audits to objectively evaluate the effectiveness of the University's internal control system, monitor the implementation of corrective actions, and provide recommendations for continual improvement. Internal audits are conducted at least once each year to ensure the ongoing effectiveness of the University's internal control system.

SWOT Analysis of NFU's Overall Institutional Development

S Strengths

1. Strong expertise in precision machinery, positioning NFU as one of Taiwan's leading universities for cultivating talent in the smart machinery industry.
2. The only national university of science and technology in Taiwan offering a Department of Aviation Engineering, with graduates widely recognized by the domestic aviation industry.
3. A strong emphasis on practice-oriented teaching and applied research, supported by outstanding industry-academia collaboration.
4. Integration of research projects with hands-on training, resulting in excellent innovation and technological achievements.
5. Outstanding industry-academia collaboration in mechanical engineering, electrical engineering, information technology, and life sciences, with extensive collaborative projects and strong industry partnerships.
6. The High-Speed Rail (HSR) Campus is strategically located adjacent to the Taiwan High Speed Rail station, providing a well-planned campus with excellent transportation accessibility.
7. Newly constructed facilities at the HSR Campus, including the Aircraft Maintenance Training Center, strengthen NFU's international competitiveness.
8. Long-term commitment to the application of artificial intelligence (AI) across teaching, research, and institutional operations.

W Weaknesses

1. Limited teaching facilities and an insufficiently internationalized campus environment make it challenging to attract international students.
2. Located in a rural area with relatively limited transportation accessibility, making it more difficult to recruit overseas Taiwanese scholars and internationally experienced faculty.
3. Variations in students' learning motivation present challenges to achieving rapid improvements in teaching outcomes.
4. Faculty research primarily focuses on applied journals, which may limit the University's international academic visibility.

O Opportunities

1. Taiwan's industrial transformation and the rise of the knowledge economy continue to increase the importance of academic research and innovation in enhancing national competitiveness.
2. Government policies actively encourage universities to participate in industrial R&D, providing diverse funding opportunities for research and innovation.
3. Located in one of Taiwan's major agricultural counties, NFU is well positioned to support partner countries in advancing agricultural mechanization and biotechnology.
4. Rapid growth in high-tech industries has created strong demand for highly skilled professionals, while AI technologies continue to receive widespread attention.
5. Industry demand for engineering and applied technical expertise provides students with excellent internship and employment opportunities, and NFU graduates are highly valued by employers.
6. Collaboration with the Asia UAV AI Innovation Application R&D Center supports the development of an integrated UAV innovation ecosystem and strengthens industry-academia collaboration.

T Threats

1. Taiwan's declining birth rate continues to reduce the pool of prospective students, creating increasing enrollment challenges.
2. Intensifying competition among universities in promoting industry-academia collaboration has increased pressure to secure external partnerships and research projects.
3. Declining academic preparedness among incoming students at universities of science and technology may affect research capacity and learning outcomes.
4. Rapid changes in the external environment present significant challenges to the planning and development of the HSR Campus.
5. Competition for large-scale government funding and strategic projects continues to intensify.
6. Regulatory constraints applicable to public universities provide less operational flexibility than that enjoyed by private institutions.

2-3 Financial Management and Resource Allocation

NFU has established a sound financial management framework encompassing budget planning, budget allocation, university endowment fund management, and financial governance mechanisms. Through prudent financial management, the University ensures adequate resources to support high-quality teaching and learning while safeguarding its core educational mission. To enhance financial sustainability, NFU continuously strengthens the effective utilization of financial resources and diversifies revenue sources for the University Endowment Fund. These efforts support campus development, improve educational quality, and reinforce the University's long-term capacity for sustainable growth and institutional development.

University Endowment Fund Performance

In 2025, NFU continued to implement revenue enhancement and cost optimization initiatives as key strategies to strengthen its financial resilience and long-term sustainability. To diversify revenue sources, the University expanded income through continuing education programs, externally funded research projects and commissioned projects, technology transfer and licensing of research outcomes, fundraising activities, and the effective utilization of institutional assets. On the expenditure side, NFU strengthened the performance management of institutional development plans, promoted energy conservation and carbon reduction initiatives, and enhanced budget control mechanisms to improve resource efficiency and ensure sound financial management. Through these measures, the University continues to reinforce the sustainability of its University Endowment Fund, support institutional development, enhance educational quality, and build a solid financial foundation for long-term sustainable growth.

2025 Revenue, Expenditure, and Sources of Funding (NT\$)

Item	Amount	Source	
		Government Subsidies	Self-Generated Revenue
Revenue	Operating Revenue	2,125,914,455	1,174,656,614
	Non-operating Revenue	169,630,235	-
Expenditure	Operating Costs and Expenses	2,416,619,678	1,386,950,314
	Non-operating Expenses	75,434,056	4,817,887

Operating Revenue and Expenditure, 2023–2025 (NT\$)

Item		2025	2024	2023
Revenue	Operating Revenue	Tuition and Fee Revenue	929,539,072	858,577,221
		Rental and Royalty Income	14,603,959	13,748,684
		Other Operating Revenue	1,181,771,424	1,170,228,977
	Non-operating Revenue	Financial Income	40,110,423	38,512,592
		Other Non-operating Revenue	129,519,812	119,114,323
Expenditure	Operating Costs and Expenses	Instructional Costs	2,147,353,682	2,047,206,117
		Other Operating Costs	62,400,600	62,060,028
		Administrative and General Expenses	200,692,361	202,328,108
		Other Operating Expenses	6,173,035	5,633,091
	Non-operating Expenses	Financial Expenses	1,631,787	1,708,862
		Other Non-operating Expenses	73,802,269	60,783,312

Funding for Sustainability Projects by SDG, 2025 (NT\$10,000)

SDG	Number of Projects	Total Project Funding (NT\$10,000)
SDG 1 No Poverty	0	0
SDG 2 Zero Hunger	2	219
SDG 3 Good Health and Well-being	81	1,547.2064
SDG 4 Quality Education	59	9,896.1777
SDG 5 Gender Equality	3	428.113
SDG 6 Clean Water and Sanitation	0	0
SDG 7 Affordable and Clean Energy	19	1,668.008
SDG 8 Decent Work and Economic Growth	12	5,558.7
SDG 9 Industry, Innovation and Infrastructure	191	16,419.9031
SDG 10 Reduced Inequalities	4	428.7
SDG 11 Sustainable Cities and Communities	14	2,029.5
SDG 12 Responsible Consumption and Production	14	1,142.524
SDG 13 Climate Action	24	1,191.59
SDG 14 Life Below Water	1	10.1476
SDG 15 Life on Land	4	130
SDG 16 Peace, Justice and Strong Institutions	3	950
SDG 17 Partnerships for the Goals	5	681.5

2-4 Academic Integrity and Ethics

SDGs | 16

SDG Targets | 16.5

To uphold its academic reputation and strengthen institutional integrity, National Formosa University (NFU) actively promotes academic integrity education and related awareness initiatives. The University continuously enhances the academic ethics competencies of faculty and staff while establishing comprehensive governance mechanisms to ensure research integrity and ethical conduct. In accordance with the National Science and Technology Council (NSTC) Guidelines for Research Project Grants and the Ministry of Education Guidelines for Handling and Reviewing Academic Ethics Cases, NFU has established the Regulations Governing the Academic Ethics Committee. The regulations aim to strengthen researchers' awareness of academic integrity and research ethics, deepen ethics education, and ensure the fair, objective, and transparent handling of academic misconduct cases. These efforts also contribute to SDG 16: Peace, Justice and Strong Institutions. NFU requires all faculty members and researchers to adhere to the following principles:

1

Conduct research with the objective of advancing academic excellence.

2

Uphold integrity and professional ethics throughout the research process, ensuring that research activities and findings remain free from improper political influence or personal interests.

3

Refrain from fabricating, falsifying, manipulating, or improperly using the work or data of others.

4

Avoid plagiarism and misappropriation of others' intellectual works, including computer programs, artistic creations, student assignments, reports, and other scholarly outputs.

5

Properly acknowledge and cite all sources when using the work or data of others.

6

Assume responsibility for all published research and scholarly works by maintaining accurate research records and preserving supporting documentation for future verification.

7

Determine authorship and author order according to each contributor's actual academic contribution.

8

Conduct peer review independently, fairly, and objectively, free from academic bias or personal relationships.

9

Comply with the Ministry of Education's regulations governing academic ethics in faculty qualification reviews.

10

Comply with all academic integrity and research ethics requirements applicable to projects funded by the National Science and Technology Council.

To ensure the effective implementation of academic integrity and ethical governance, NFU has established the Academic Ethics Committee as the University's highest supervisory body for academic ethics. In 2025, the Committee convened one meeting to review the implementation of academic integrity education and promotional initiatives, monitor academic integrity issues involving faculty and students, and oversee the execution of related administrative procedures. Reports of suspected academic misconduct involving students are handled by the Office of Academic Affairs, while cases involving faculty members are reviewed by the Faculty Evaluation Committee.

Academic integrity is promoted collaboratively across the University. During the 2024 Academic Year, NFU achieved the following outcomes:

Conducted orientation workshop on academic integrity for newly appointed faculty members.

1
Session

Organized educational sessions to promote intellectual property rights and related academic integrity issues within academic courses and campus activities.

4
Sessions

2-5 Information Security and Smart Campus

SDGs | 3, 4, 9, 16

SDG Targets | 9.1, 16.10

Information Security

Information security is a fundamental component of NFU's institutional governance and digital transformation strategy. To strengthen information security protection and establish a secure digital environment, National Formosa University (NFU) successfully obtained ISO/IEC 27001:2022 Information Security Management System (ISMS) certification in 2025. The certification covers the University's Computer and Information Center, including data center operations, network management, and the security management of major information systems, such as the Student Registration and Academic Records Management System, Student Counseling Case Management System, Digital Learning Platform, Student Counseling Appointment System, Campus e-Administration Platform, and Email Services. The certification scope also extends to the Secretariat, Personnel Office, Accounting Office, Office of Academic Affairs, Office of Student Affairs, Office of General Affairs, Office of Research and Development, Office of International Affairs, Office of Industry-Academia Collaboration and Services, Office of Sustainability and Social Responsibility, Library, Office of Physical Education, Arts Center, Institutional Development Center, Environmental Protection and Occupational Safety and Health Center, Center for Teaching and Learning Development, General Education Center, Research Center for Intelligent Machinery and Smart Manufacturing, and Language Teaching Center.

NFU has implemented the Information Security Management System (ISMS) in phases across the University. In 2025, the ISMS was fully implemented across all administrative and academic units, which subsequently underwent internal information security audits. In addition, all administrative units, the General Education Center, and the Language Teaching Center successfully passed ISO/IEC 27001:2022 certification. To strengthen supply chain security, the University also conducted on-site information security audits of five outsourced information system service providers, with no major nonconformities identified.

To reinforce institutional governance, NFU established the Information Security and Personal Data Protection Committee, comprising representatives from multiple administrative units. The Vice President serves as the University's Chief Information Security Officer (CISO) and oversees the development and continuous improvement of information security policies and governance mechanisms. In 2025, the Committee convened three meetings to review information security issues and monitor implementation progress. The University also conducts annual inventories of information systems and information assets across all first- and second-level administrative and academic units. In addition, NFU provides regular information security and personal data protection training to strengthen cybersecurity awareness and data privacy compliance among faculty and staff. All managerial personnel and general staff are required to complete at least three hours of annual training on information security and personal data protection.

Information Security Initiatives and Achievements in 2025

Information Security Initiative		Achievements in 2025
1	Ensure the stable operation of the data center and campus backbone network through continuous monitoring by the Computer and Information Center.	Deployed FortiWeb Web Application Firewall (WAF) to strengthen the security of the University's information systems and protect against Distributed Denial-of-Service (DDoS) attacks, SQL injection, and Cross-Site Scripting (XSS) attacks.
2	Established the Information Security and Personal Data Protection Committee, chaired by the University's Chief Information Security Officer (CISO) (Vice President appointed by the President), to oversee information security governance through regular meetings.	Convened three Information Security Committee meetings in 2025.
3	Conduct annual inventories of information systems and information assets.	Completed annual inventories covering all first- and second-level administrative and academic units in 2025.
4	Conduct regular information security and personal data protection training to strengthen cybersecurity awareness among faculty and staff.	Organized eight training sessions, providing a total of 24 training hours.
5	Offer ISO/IEC 27001:2022 Lead Auditor training and provide implementation guidance, internal audits, and external audits to ensure compliance with the international Information Security Management System (ISMS) standard.	Conducted one ISO/IEC 27001:2022 Lead Auditor training course. A total of 12 participants completed the course and all obtained certification.
6	Conduct annual audits of outsourced information service providers by an independent professional consulting firm to ensure the security of outsourced information services.	Five outsourced service providers were audited in 2025, and no major nonconformities were identified.
7	Perform penetration testing of critical information systems every two years.	Conducted penetration testing and completed remediation for six critical information systems, including the Student Counseling Case Management System, Official Email System, Student Counseling Appointment System, uLearn Digital Learning Platform, Campus e-Administration Platform, and Student Registration and Academic Records Management System.
8	Conduct vulnerability assessments of information systems.	Performed at least one vulnerability assessment during the year. Medium- and high-risk vulnerabilities were reported to responsible units for remediation, followed by verification testing after corrective actions were completed.
9	Conduct social engineering simulation exercises.	Completed at least two social engineering exercises in accordance with the requirements of the competent authority.
10	Strengthen controls over ICT products from designated manufacturers.	Revised the University's procurement procedures and prohibited the use of ICT products from designated mainland Chinese manufacturers across campus and leased facilities.

Building a Smart Campus



Enhancing Campus Services

1. Developed Taiwan's first Cloud Rental Housing Platform, integrating Google Maps, traffic safety information, and online rental housing resources to provide students at NFU and other higher education institutions with safer off-campus housing services.
2. Partnered with the Airiti iPress Online Submission System to fully digitize the submission, peer review, and publication processes of the National Formosa University Journal, improving administrative efficiency, reducing paper consumption, encouraging scholarly submissions, and enhancing the journal's international visibility.
3. Integrated the campus network management system with LINE Notify, enabling network administrators to receive real-time alerts on equipment failures and network incidents.
4. Upgraded the campus network infrastructure in 2025, optimizing the network environment in the Third Teaching Building and the Security Office, while upgrading wireless network equipment in the First to Third Teaching Buildings (including surrounding outdoor areas), the Library, Student Activity Center, and Security Office to the Wi-Fi 6 standard.



Smart Administration

1. Promoted paperless administration by implementing an electronic form approval system. By 2025, 44 categories of administrative forms had been digitized, reducing paper consumption by approximately 107,874 A4 sheets during the year.
2. Launched a new online course registration system with enhanced cybersecurity protections to safeguard the personal information of more than 10,000 faculty members and students. The redesigned user interface also improves user experience while supporting digital inclusion and information resilience.
3. Digitized applications for financial aid and tuition fee reductions, replacing paper-based submissions with online applications. This has eliminated the need for in-person document submission, reduced indoor crowding, lowered potential infectious disease transmission risks, and decreased approximately 3,200 in-person consultations annually.
4. Established a Document Tracking System that creates a digital audit trail for important administrative documents through barcode scanning, improving document processing efficiency, accountability, and institutional governance.
5. Developed an Online Leave of Absence, Withdrawal, and Reinstatement Application System through the Campus eCare Platform, reducing unnecessary travel and associated greenhouse gas emissions by enabling students to complete administrative procedures online.
6. Implemented an Online Student Association Election System, replacing paper ballots and manual vote counting with digital voting. The system is expected to save thousands of printed ballots annually, reduce transportation-related carbon emissions, support SDG 12: Responsible Consumption and Production, and promote low-carbon campus governance.



Smart Campus Management

1. Replaced conventional air-conditioning units with precision rack-mounted cooling systems equipped with inverter compressors, intelligent temperature control, hot/cold aisle management, and advanced cooling technologies to improve energy efficiency and reduce electricity consumption.
2. Expanded server virtualization to replace physical servers, reducing data center space requirements, electricity consumption, cooling loads, and operating costs while improving data center efficiency.
3. Installed smart electricity meters and an energy management system across campus teaching buildings to monitor electricity consumption and implement scheduled power management, contributing to energy conservation.



Enhancing Digital Teaching and Learning

1. Upgraded the Digital Learning Platform in 2025, introducing a more user-friendly login interface, enhanced cybersecurity protection, batch grading functions for quizzes, batch attendance management, and customizable homepage settings to improve teaching efficiency and learning experiences.
2. To strengthen students' programming competencies, NFU co-hosted the 9th National Collegiate Programming Competition on July 9, 2025. NFU students achieved outstanding results, winning First Gold Prize, Third Gold Prize, and three Bronze Awards, demonstrating the University's commitment to cultivating digital talent and innovation.



03

Well-being Campus and Talent Development

Management of Material Topics

Sustainability Dimension

Social / Environmental

Material Topic

1. Talent Attraction and Retention
2. Campus Safety Management
3. Environmental Health Management

Corresponding GRI Standards

GRI 401, 403, 405

Corresponding SDGs



Policies and Commitments

1. To attract and retain outstanding talent, NFU provides competitive salaries and benefits in accordance with government regulations and implements a Flexible Compensation Program under the Ministry of Education's Higher Education Sprout Project. The program rewards excellence in teaching, research, and service, encouraging faculty members to achieve outstanding performance across diverse areas.
2. To protect the rights and interests of faculty and staff while fostering an inclusive and supportive campus, NFU has established formal grievance mechanisms through which employees may seek redress when their rights or interests are adversely affected.
3. To safeguard the health and safety of faculty, staff, and students, NFU has adopted an Occupational Safety and Health Policy and is committed to providing a safe, healthy, and high-quality learning and working environment.

Objectives

1. Ensure that all newly enrolled students complete Occupational Safety and Health (OSH) training within one month of enrollment.
2. Conduct at least two general OSH training programs annually.
3. Ensure that at least one-third of faculty members receiving flexible compensation are at the rank of Associate Professor or below.

Grievance Mechanisms

- Student Grievance System: <https://osa.nfu.edu.tw/life/law>
- Faculty and Staff Grievance System: https://per.nfu.edu.tw/zh_tw/personnelrule/appeal
- Labor-Management Committee

3-1 Talent Attraction and Retention

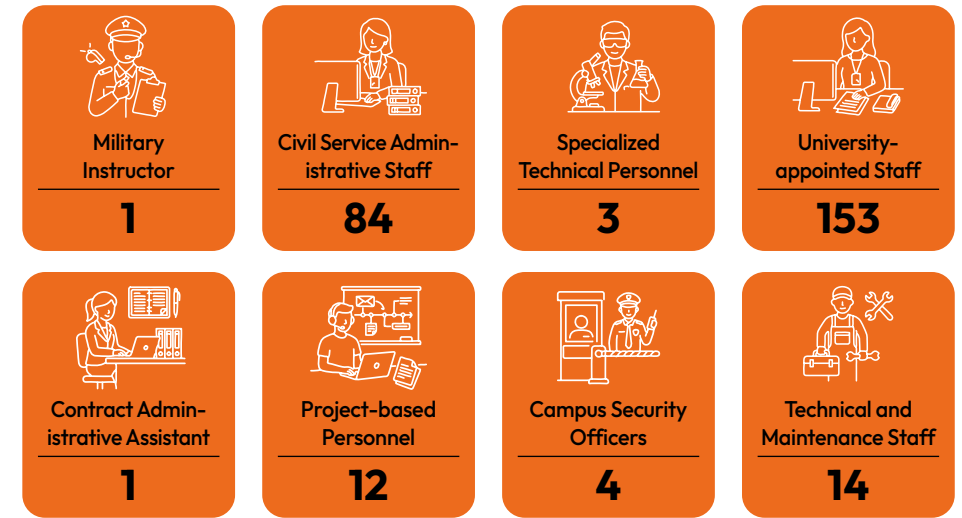
SDGs | 5, 8

SDG Targets | 5.1, 8.8

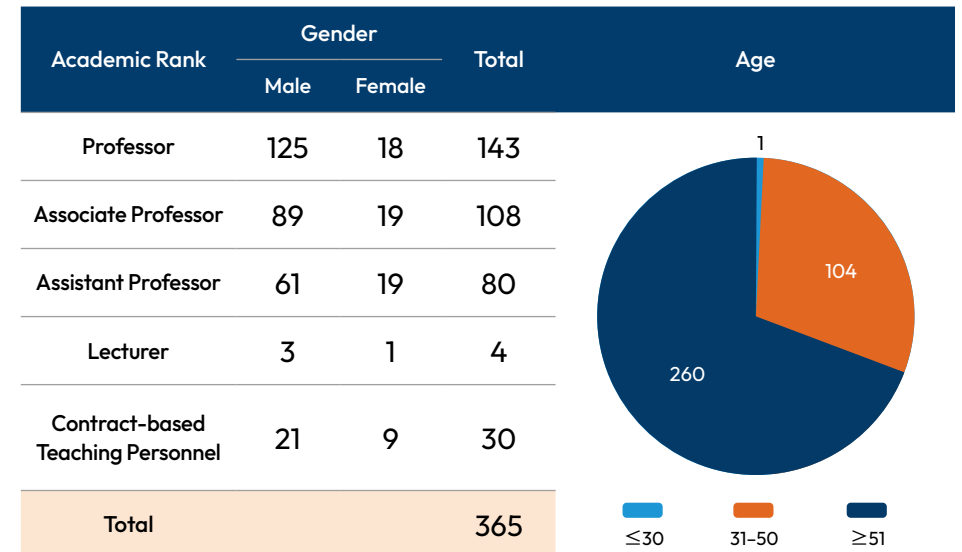
To support its long-term development and pursuit of excellence in teaching and research, National Formosa University (NFU) has established a comprehensive human resource management system to attract and retain outstanding talent. The University recruits highly qualified faculty members with strong academic credentials and appoints dedicated administrative staff committed to delivering high-quality services. Guided by the principles of equal opportunity and merit-based employment, NFU provides equitable employment practices without discrimination based on gender, age, religion, ethnicity, family status, political affiliation, or other protected characteristics.

In 2025, NFU employed a total of 874 faculty and staff, including full-time faculty members, contract-based teaching personnel, and administrative staff. Among them, 36 employees were persons with disabilities, reflecting the University's commitment to promoting equal employment opportunities, workplace inclusion, and the social participation of persons with disabilities. To accommodate institutional growth and respond to changes in workforce needs, NFU continuously reviews and optimizes its workforce planning, organizational structure, and talent development strategies. The University maintains flexible human resource allocation mechanisms to ensure appropriate staffing while supporting sustainable institutional development. The following sections present the demographic profiles of full-time faculty members, contract-based teaching personnel, part-time faculty members, and administrative staff.

Distribution of Administrative Staff in 2025



Distribution of Faculty Members by Academic Rank and Gender (2025)



Faculty Recruitment and Turnover

To maintain the quality of education and support the University's sustainable development, National Formosa University (NFU) continues to recruit outstanding faculty members while maintaining an appropriate workforce structure through systematic faculty recruitment and succession planning. The University regularly appoints new faculty to meet teaching, research, and institutional development needs, while also managing faculty turnover to ensure the continuity and quality of academic programs. The statistics on full-time faculty recruitment and turnover from 2023 to 2025 are presented below.

Number and Percentage of Newly Recruited Full-time Faculty Members (2025)

Gender/ Age		2023	2024	2025
Gender	Male	20	4	5
	Female	1	1	2
Age	≤30	0	0	0
	31–50	14	4	2
	≥51	7	1	5
Number of New Hires		21	5	7
New Hire Rate (%)		6.2 %	1.5 %	2.0 %

Number and Percentage of Full-time Faculty Departures (2025)

Gender/ Age		2023	2024	2025
Gender	Male	16	5	5
	Female	0	1	3
Age	≤30	0	0	0
	31–50	4	1	2
	≥51	12	5	6
Number of Departures		16	6	8
Turnover Rate (%)		4.7 %	1.8 %	2.3 %

Family-friendly Workplace

NFU is committed to fostering a family-friendly and gender-equal workplace. Parental leave policies for faculty and staff are implemented in accordance with the Gender Equality in Employment Act, the Regulations Governing Leave Without Pay for Civil Servants, the Regulations Governing Leave Without Pay for Educational Personnel, and the Regulations Governing Parental Leave Without Pay. Faculty and staff may apply for parental leave without pay until their child reaches three years of age. Upon the completion of parental leave, employees are reinstated to their original positions or equivalent positions within their original units, ensuring continuity of employment and safeguarding career development. Through these family-friendly employment policies, NFU supports work-life balance, promotes gender equality in the workplace, and strengthens its ability to attract and retain talented faculty and staff.

Parental Leave Statistics (2025)

Academic Year	Paternity Leave and Prenatal Check-up Leave (Male)	Prenatal Check-up Leave and Prenatal Leave (Female)	Maternity Leave	Parental Leave Without Pay	
				Male	Female
110	1	11	12	2	9
111	2	8	7	1	12
112	3	7	9	3	9
113	0	4	6	1	8



3-2 Compensation, Benefits, and Professional Development

SDGs | 5, 10, 16

SDG Targets | 5.1, 5.c, 10.2, 10.3, 16.6

Compensation Policy

NFU has established a fair and transparent compensation system for faculty members. Faculty compensation primarily consists of base salary and an academic research allowance. The base salary is determined in accordance with the Monthly Salary Scale for Educational Personnel under Taiwan's public-sector salary system, while the academic research allowance is granted based on the Academic Research Allowance Scale for Faculty Members at Public Universities and Colleges. Newly appointed full-time faculty members are initially placed at the minimum salary grade corresponding to their appointed academic rank. Faculty members with eligible prior professional experience may apply for salary credit by submitting relevant supporting documentation. Such applications are reviewed and processed in accordance with the Teacher Remuneration Act and the Regulations Governing the Recognition of Prior Service for Faculty Salary Determination, ensuring that compensation is determined fairly, consistently, and in compliance with applicable regulations.



• Average Monthly Compensation (NT\$) in 2025

Average Weekly Teaching Hours of Full-time Faculty (2025)

Academic Rank / Academic Year	111	112	113
Professor	10.63	10.18	10.58
Associate Professor	11.42	11.4	11.3
Assistant Professor	12.26	12.05	12.4
Lecturer	15.36	15.09	14.78
Other Faculty	8	10.67	9.5

Salary Placement Based on Prior Service

1. Direct Salary Placement by the Personnel Office

Faculty members with prior service in any of the following positions may be eligible for direct recognition of their service by the Personnel Office:

- Full-time faculty positions at public universities in Taiwan.
- Full-time faculty positions at private universities in Taiwan, provided that official documentation certifies satisfactory performance (e.g., *excellent service record*).
- Full-time positions within government agencies or government-appointed personnel, such as postdoctoral researchers employed under the regulations of Academia Sinica.

The Personnel Office reviews the supporting documentation and submits the proposed salary placement for approval by the President.

2. Salary Placement Subject to Faculty Evaluation Committee Review

Prior service in private-sector organizations, project-based appointments, or overseas universities and research institutions may be recognized following review and approval by the Department (Institute/Center) and College Faculty Evaluation Committees. Eligible prior service must satisfy the following criteria:

- The previous position was held on a full-time basis.
- The duties were closely related to the faculty member's teaching discipline.
- The work experience is relevant to the faculty member's teaching responsibilities.
- The position was comparable in level to the faculty member's current academic appointment.
- The employing organization was of appropriate scale and recognized internationally.
- The faculty member demonstrated satisfactory performance, supported by one or more of the following:
 1. An official certificate of satisfactory performance issued by the previous employer.
 2. Annual performance evaluations rated satisfactory or above (or a score of 80 or higher).
 3. Evidence of regular annual salary progression where formal evaluations were not conducted.
 4. Review and recognition of outstanding research capability and achievements by the three-level Faculty Evaluation Committee when formal documentation is unavailable.
 5. Other supporting evidence, such as service records or awards, approved by the Faculty Evaluation Committee.

Application Procedures

- Concurrent with faculty appointment: Prior service is reviewed together with the faculty appointment by the Department (Institute/Center) and College Faculty Evaluation Committees, which determine the number of years of recognized service and the corresponding salary placement.
- After appointment: If the application is not submitted concurrently with the appointment, faculty members must apply within one month after their initial salary grade is determined. Upon approval by the Department (Institute/Center) and College Faculty Evaluation Committees, review by the Personnel Office, and authorization by the President, the approved salary adjustment is applied retroactively to the faculty member's date of appointment.

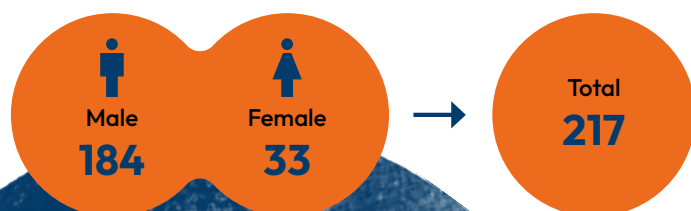
Compensation and Benefits

To attract and retain outstanding talent, NFU provides faculty and staff with compensation and benefits in accordance with applicable laws and regulations. In addition, in line with the Ministry of Education's Flexible Compensation Program for Recruiting and Retaining Outstanding Talent at Higher Education Institutions and the Higher Education Sprout Project, NFU has implemented a flexible compensation scheme to reward exceptional performance and strengthen institutional competitiveness. The evaluation criteria for flexible compensation encompass teaching, research, and service performance. The scheme also recognizes contributions to innovative teaching (including Ministry of Education-funded teaching initiatives and Teaching Practice Research Programs), innovation and entrepreneurship, and the implementation of University Social Responsibility (USR) initiatives. By adopting diversified evaluation criteria, NFU encourages faculty members from different disciplines while attracting and retaining distinguished domestic and international professionals with exceptional achievements in teaching, research, service, and industry practice.

Implementation Outcomes of the Flexible Compensation Program (2021–2025)

Category	2021	2022	2023	2024	2025
Faculty Members Recognized for Excellence in Teaching, Research, and Service (Persons)	182	179	200	200	183
Newly Recruited Outstanding Faculty (Persons)	28	22	34	33	34
Proportion of Subsidy Recipients at the Rank of Associate Professor or Below (%)	59.5%	53.7%	55.6%	54.1%	55.3%

Gender Distribution of Faculty Receiving Flexible Compensation (2025)



Research Incentive Programs

NFU is committed to fostering research excellence through a comprehensive research performance evaluation and incentive system. The University actively recruits and retains outstanding scholars while encouraging faculty members to engage in innovative research and academic development. To support faculty members throughout different stages of their research careers, NFU has established a range of policies and incentive programs, including the Incentive Program for Research Projects, Matching Grants for Competitive Research Projects, Outstanding Research Performance Awards, Distinguished Chair Professor Program, Distinguished Professor Program, Faculty Research Grant Program, and Research Equipment Grants for Newly Appointed Faculty. These initiatives provide continuous guidance, financial support, and performance-based incentives to strengthen research capacity, promote academic excellence, and encourage sustained engagement in high-quality research and innovation. The University's major research incentive programs are summarized below.

Summary of Research Incentive Programs and Outcomes

Incentive Program	Outcomes
Research Equipment Grants for Newly Appointed Faculty	From 2020 to February 2024, a total of NT\$8,900,993 was awarded to 56 newly appointed faculty members. No grants were disbursed during the second half of 2024 due to amendments to the relevant regulations.
Incentive Grants for Faculty Whose NSTC Research Proposals Were Not Approved	From 2021 to 2024, 76 projects received funding totaling NT\$4.71 million.
Institutional Matching Grants for Research Projects	From 2021 to 2024, NFU provided NT\$37,251,393 in equipment funding and NT\$31,475,731 in operating expenses.
Faculty Research Grants and Awards	From 2021 to 2024, 254 faculty members received grants and awards totaling NT\$4,468,261.
Outstanding Academic Research and Industry-Academia Collaboration Awards	From 2021 to 2024, 18 faculty members received awards totaling NT\$1.8 million.
Distinguished Professors	Six distinguished professors were appointed in 2020, six in 2021, none in 2022, five in 2023, and six in 2024.
Distinguished Chair Professors	One distinguished chair professor was appointed in both 2021 and 2022. No applications were received in 2023 or 2024.

3-3 Diversity, Equity, and Human Rights

SDGs | 5, 10, 16

SDG Targets | 5.1, 5.c, 10.2, 10.3, 16.6

Gender Equality

To establish an educational environment free from gender discrimination, enhance campus safety and harmony, safeguard fundamental human rights guaranteed by the Constitution, and protect the right to gender equality, National Formosa University has established the Gender Equity Education Committee in accordance with the Gender Equity Education Act.

In 2025, the University implemented a range of gender equality initiatives and programs, achieving positive outcomes. The following table presents the major initiatives and their implementation results.



Gender Equality Workshops

Exploring the Formation and Development of Intimate Relationships



Practical Application of Etiquette Skills

Reflections Between Flowers and Water" Joint Art Exhibition



Implementation Outcomes of the Gender Equality Education Program (2025)

Gender Equality Initiative	Implementation Outcomes
Gender Equality Education Committee	The Gender Equality Education Committee convened 6 meetings to oversee and promote gender equality initiatives across the University.
Gender Equality Courses	Delivered 18 hours of gender equality education courses.
Gender Equality Lectures	Organized 5 lectures, attracting approximately 2,500 participants.
Gender Equality-related Art Exhibition	Hosted the <i>Reflections Between Flowers and Water</i> Joint Art Exhibition, with approximately 620 participants.
Gender Equality-related Books and Audio-visual Resources	1. Purchased 25 books on gender equality recommended by faculty and students, including <i>I Am Who I Am</i> and <i>Between Women and the Public</i>. 2. Acquired six online audiovisual resources on gender equality education, including <i>Her</i> and <i>20th Century Women</i>.
Gender Equality Workshops for Student Residence Halls	Organized five themed workshops, with approximately 309 participants.
Gender Equality Training for Faculty and Staff	Organized the lecture "From Equality to Transformation: Three Pathways to Gender Equality" as part of the University's gender mainstreaming and gender awareness program, complemented by online learning modules. Approximately 322 faculty and staff members participated.
Professional Training on Campus Gender-related Incidents	Encouraged participation in the Ministry of Education's professional training program on campus gender-related incidents. 2 staff members completed the training and obtained certification.
Friendly Campus Week	Promoted an anti-bullying and gender-friendly campus through four thematic lectures and two educational visits addressing bullying, sexual assault, and sexual harassment prevention, with approximately 300 participants.
Gender Equality Education Day Series	Promoted an anti-bullying and gender-friendly campus through four thematic lectures and two educational visits addressing bullying, sexual assault, and sexual harassment prevention, with approximately 341 participants.

Investigation of Gender-related Incidents

In accordance with the Gender Equity Education Act and related regulations, NFU has established the Procedures for the Investigation and Resolution of Campus Gender-related Incidents, which provide a comprehensive framework for handling cases involving sexual harassment and other gender-related incidents involving students, faculty, and staff. The procedures cover the entire case management process, including filing a complaint, preliminary review, establishment of an investigation panel, investigation and reporting, appeals, reconsideration, and disciplinary recommendations. Throughout the process, the University safeguards the privacy, physical and psychological well-being, and procedural rights of all parties involved. The effective implementation of these procedures reflects NFU's continued efforts to promote gender equality awareness, foster an inclusive and respectful campus culture, and maintain a transparent and accessible grievance mechanism. The University remains committed to providing a campus environment that embraces diversity, upholds equity and inclusion, and maintains zero tolerance for discrimination, sexual harassment, and gender-based misconduct.

Faculty, Staff, and Student Grievance Mechanisms

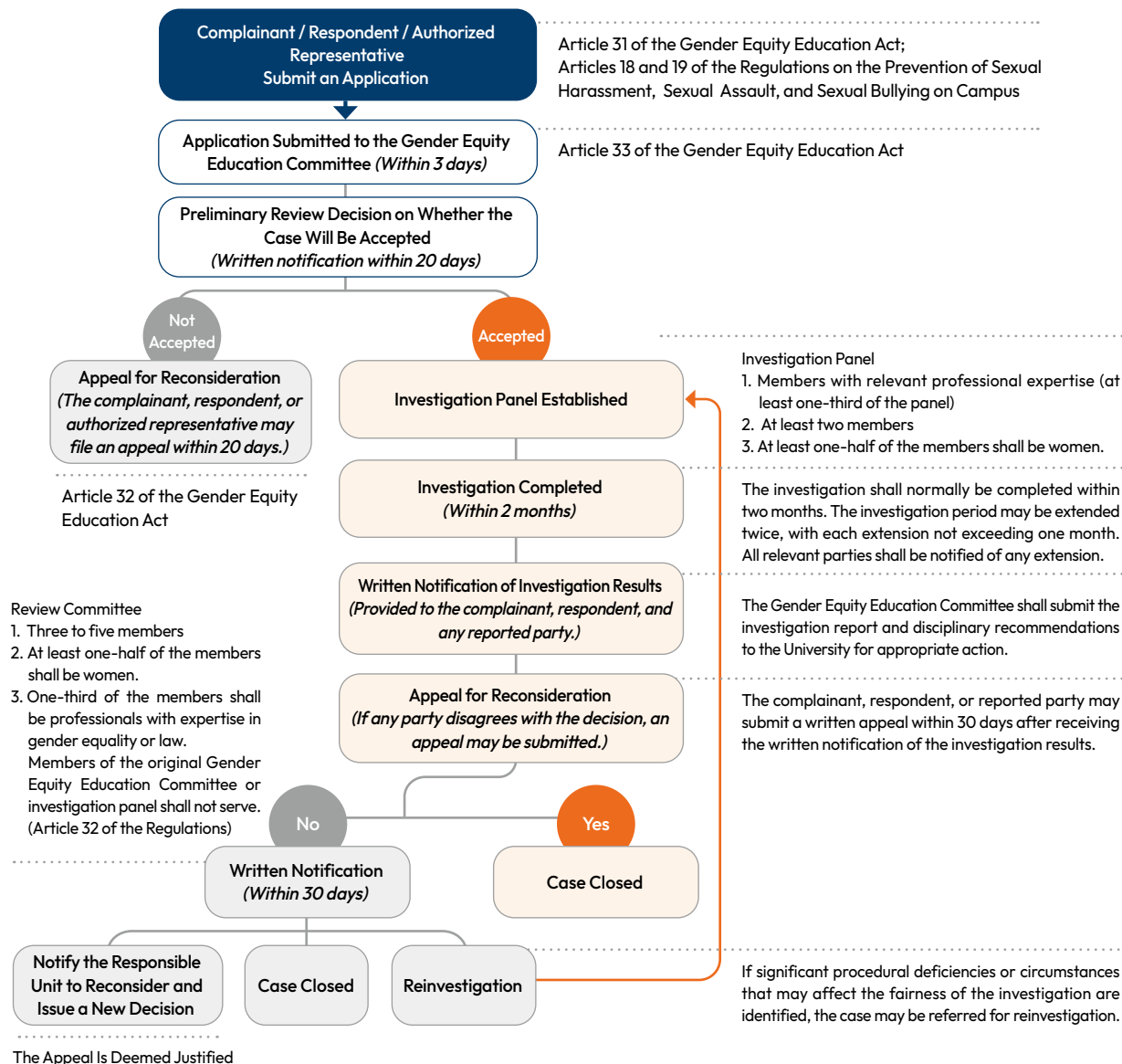
To safeguard the rights and interests of faculty, staff, and students, National Formosa University (NFU) has established the Faculty Grievance Review Committee, Staff Grievance Review Committee, and Student Grievance Review Committee in accordance with applicable regulations. These committees provide fair, impartial, confidential, and accessible grievance mechanisms to ensure due process and the protection of individual rights. Faculty and staff who believe they have been subjected to inappropriate treatment or whose rights and interests have been adversely affected may submit a written grievance for review. Each case is investigated and deliberated by the appropriate grievance review committee, with strict safeguards in place to protect personal information and ensure that the grievance process does not adversely affect employment, promotion, or personnel decisions. Students may submit grievances through the Student Grievance Review Committee, which serves as an important channel for protecting student rights, facilitating constructive communication between students and the University, and fostering a respectful and ethical campus environment. In 2025, the University received a total of nine grievance cases, comprising three faculty cases, six student cases, and no staff cases. All cases were reviewed and resolved in accordance with established procedures, demonstrating the fairness, effectiveness, and accountability of NFU's grievance management system.

Grievance Mechanisms and Cases Received (2025)

Grievance Mechanism	Cases Received	Cases Resolved
Faculty Grievance Review Committee	3	3
Staff Grievance Review Committee	0	0
Student Grievance Review Committee	6	6

Faculty and Staff Grievance Mechanism: <http://personnel.nfu.edu.tw/files/11-1008-6092.php>
Student Grievance Mechanism: <https://nfuosa.nfu.edu.tw/studaff/law.html>

NFU Procedures for Reporting, Investigating, and Handling Campus Gender-related Incidents



3-4 Student Support and Well-being

SDGs | 1, 2, 4, 8, 10

SDG Targets | 1.3, 2.1, 4.5, 4.a, 8.5, 10.2, 10.3

Special Education Support

In 2000, in accordance with the Ministry of Education's Guidelines for Counseling Students with Disabilities at Higher Education Institutions, National Formosa University (NFU) established a Resource Room to provide individualized support and accommodations for students with disabilities studying in mainstream higher education. The Resource Room offers comprehensive academic, personal, and campus support services to help students overcome learning barriers, fully participate in university life, and successfully complete their higher education. Through these services, NFU promotes the principles of inclusive education by ensuring equitable access to learning opportunities and fostering an inclusive campus environment. In addition to academic support, the Resource Room provides a welcoming space where students with disabilities can interact, build supportive peer networks, and share learning and personal experiences, thereby strengthening their sense of belonging and well-being on campus. In 2025, NFU allocated more than NT\$1.39 million in institutional matching funds, in addition to subsidies provided by the Ministry of Education's Program for Recruiting and Supporting Students with Disabilities in Higher Education Institutions, to enhance services and support for students with disabilities. The major achievements are summarized below.



Peer Academic Support Statistics

Career Development Activities –
Alumni Career Sharing Sessions and
Career Exploration Workshops



Special Education Awareness Week – Disability Awareness and
Experiential Learning Activities



Outcomes of Special Education Support Programs (2025)

	Program / Activity	Outcomes
Peer Support and Daily Living Assistance	Peer Academic Support	▶ 67 students received support, totaling 1,367 hours.
	Daily Living Assistance	▶ 9 students received support, totaling 453 hours.
	Comprehensive Assistance	▶ 5 students received support, totaling 179 hours.
	Note-taking Support	▶ 1 student received support, totaling 8 hours.
Academic Support	After-school Tutoring for Foundational Courses	▶ 5 instructors provided 813 hours of tutoring.
	After-school Tutoring for Specialized Courses	▶ 24 instructors provided 462.5 hours of tutoring.
Student Development Activities	Career Development Activities	▶ 5 sessions with 88 participants.
	Interpersonal Skills Development Groups	▶ 7 sessions with 158 participants.
	Other Extracurricular Activities	▶ 14 activities with 798 participants.
Special Education Awareness Programs	"Inclusive Campus Week: Caring for People with Disabilities" and Special Education Awareness Activities	▶ 6 activities with 1,591 participants.
	Special Education Workshops	▶ 2 sessions with 55 participants.
	Meetings and Discussion Forums	▶ 20 sessions with 982 participants.

Indigenous Student Support

To strengthen Indigenous students' sense of cultural identity and belonging while promoting an inclusive campus environment, National Formosa University (NFU) has established the Indigenous Student Resource Center (ISRC). The Center organizes a wide range of activities related to Indigenous cultures, multicultural awareness, and campus inclusion, providing opportunities for faculty, staff, and students to gain a deeper understanding of Taiwan's Indigenous peoples and cultures. The ISRC also serves as a campus-wide coordination platform, integrating institutional resources to provide comprehensive academic, personal, and career support for Indigenous students, helping them successfully adapt to university life and achieve academic success. In 2025, NFU invested approximately NT\$1.94 million in Indigenous education initiatives and student support programs.

1

Student Care and Financial Support

NFU provides comprehensive student support services to ensure that Indigenous students can pursue their studies with confidence.

Priority Housing

On-campus accommodation was guaranteed for all Indigenous students, achieving a 100% dormitory accommodation rate.

Scholarships and Financial Assistance

The University assisted Indigenous students in applying for institutional scholarships and financial aid. Indigenous students were also identified as a priority group under the Soaring Eagle Student Development Program, benefiting 68 students in 2025.

Student Support Services

Counseling and guidance were provided to assist Indigenous students in adapting to campus and residential life.

2

Academic Support

NFU provides a range of academic support services to enhance learning outcomes and academic success.

Academic Tutoring

Through the Soaring Eagle Student Development Program, the University offered after-school tutoring and remedial instruction, delivering 24 tutoring sessions in 2025.

Learning and Examination Anxiety Support

Learning needs assessments, focus group discussions, and individualized academic consultations were conducted to identify learning challenges and provide tailored academic support.

Leave of Absence and Withdrawal Consultation

The University provides consultation services for students considering a leave of absence or withdrawal, analyzes contributing factors, and offers appropriate academic and personal support.

3

Career Development and Employment Support

NFU assists Indigenous students in preparing for their future careers through comprehensive career planning and professional development services.

Career Guidance

Career counseling, employment information, and individualized career exploration services are provided in collaboration with the Career Development Center, including one-on-one career counseling when needed.

Professional Certification Support

The University offers career development workshops, professional training courses, and certification preparation programs. Students are also eligible for subsidies covering examination registration fees for professional certifications.

4

Inclusive Campus and Cultural Engagement

To foster cultural identity, social participation, and connections with Indigenous communities, NFU organizes a variety of campus and community engagement activities.

Strengthening Cultural Identity and Multicultural Awareness

The University supports Indigenous student organizations and regularly hosts cultural and community-building activities. In 2025, 29 activities were organized with a total participation of 1,181 attendees.

Intercultural Competency Development

Indigenous community visits and cultural exchange activities were organized to strengthen students' connections with their home communities while enhancing intercultural understanding and appreciation.





Outcomes of Indigenous Student Support and Indigenous Education Initiatives (2025)

Program / Activity		Outcomes
Student Support	Beginning-of-Semester Orientation Meetings	▶ 2 sessions with 82 participants
	End-of-Semester Gatherings	▶ 2 sessions with 45 participants
Academic Support	After-school Tutoring for Specialized Courses	▶ 24 sessions with 160 participants
	Peer Study Groups for Examination Preparation	▶ 35 sessions with 107 participants
	Indigenous Language Tutoring	▶ 15 sessions with 107 participants
Career Development and Employment Support	Entrepreneurship Experience Sharing Seminars	▶ 2 sessions with 51 participants
	Career Exploration Workshops	▶ 2 sessions with 12 participants
	Indigenous Employment and Welfare Information Session	▶ 1 session with 36 participants
	Indigenous Multicultural Learning and Career Exploration Program	▶ 1 session with 12 participants
Indigenous Education Promotion	Indigenous Alumni Career Sharing Session	▶ 1 session with 25 participants
	Traditional Crafts and Performing Arts Workshops	▶ 14 sessions with 153 participants
	Seminars on Indigenous Issues	▶ 5 sessions with 323 participants
	Cultural Experience Activities	▶ 8 sessions with 673 participants
	Indigenous Community Service	▶ 2 sessions with 32 participants

Comprehensive Student Financial Assistance and Support

NFU has strengthened its support mechanisms for economically disadvantaged students by integrating both on-campus and external resources to establish a comprehensive support system tailored to students' individual needs. The University provides multi-dimensional assistance, including admission support, financial assistance, academic guidance, competency development, and career counseling, helping students overcome barriers to learning, improve academic performance, and promote equitable access to higher education.

To enhance learning outcomes beyond the classroom, NFU launched the Soaring Eagle Student Development Program, which encourages students to participate in non-credit professional and employability development courses, organize peer study groups, and engage in other learning enhancement activities during their free time. From 2018 to 2025, the number of students benefiting from the program increased from 359 to 464, while the participation rate rose from 34.0% to 44.7%, representing an increase of 10.7 percentage points. The continuous growth in both the number and proportion of participating students demonstrates the University's expanding support for economically disadvantaged students and the effectiveness of its student assistance initiatives. To further strengthen its support framework, NFU has established the Guidelines for the Soaring Eagle Student Financial Assistance and Incentive Program, which provides comprehensive assistance in four key areas: Academic Support, Competency Development, Career Development, Living Assistance. The program offers a wide range of support measures, including learning stipends, subsidies and incentives for professional certification examinations, financial support for professional training and skills development programs, special financial assistance, peer study group incentives, and the Dream Fulfillment Program, enabling students to develop their academic, professional, and career potential while reducing financial barriers to higher education.

Student Financial Assistance Outcomes (2025)

Financial Assistance Program	Eligibility / Funding Mechanism	2025 Outcomes
Learning Stipend for Diverse Learning Activities	Students participating in non-credit courses or learning activities receive a stipend of NT\$300 per hour, with a maximum monthly amount of NT\$10,000.	▶ 24,102 hours (1,595 participations)
Professional Certification Examination Subsidies and Incentives	Subsidy: Students may apply by submitting proof of examination fee payment and examination results. Incentive: NT\$1,000 for each Class C certification and NT\$2,000 for each Class B certification.	▶ 365 applications ▶ 276 awards
Professional Skills and Career Training Subsidies	Registration fee subsidies for on-campus and off-campus professional training programs and career development courses.	▶ 561 course enrollments (406 participations)
Special Financial Assistance Program	Students recommended by academic departments who require urgent financial support receive NT\$10,000 per month upon completing at least 10 hours of learning activities across two or more learning categories.	▶ 4,370 hours (409 participations)
Peer Study Group Incentive Program	Students participating in peer study groups for at least 16 hours per month receive an incentive of NT\$3,000 per person.	▶ 17,141 hours (140 study groups)
Dream Fulfillment Program	Students submit a learning or career development proposal and expected outcomes. Following committee approval, each project receives NT\$10,000–15,000 per month for a maximum implementation period of 12 months.	▶ 115 participations

Scholarships and Financial Aid

To ensure equitable access to higher education and create a supportive learning environment, National Formosa University (NFU) provides a wide range of scholarships, financial aid programs, and tuition and fee reduction schemes to support students throughout their academic journey. The University has also established a comprehensive career development support system and offers targeted assistance for economically disadvantaged students, fostering an inclusive campus environment where every student can pursue higher education with confidence.

In the 2022 Academic Year, Fengtay Group established the Fengtay Outstanding Freshman Scholarship, funded through a donation by Ms. Liu Mei-Hui, to recognize and encourage academically outstanding incoming students. Under the agreement, Fengtay Group committed to providing NT\$5 million annually from Academic Years 2022 to 2026, supporting outstanding freshmen through merit-based scholarships and reinforcing NFU's commitment to educational opportunity and student excellence.

Scholarship and Financial Aid Statistics (2025)

Item	Amount / Outcome
Budget Allocation (NT\$)	41,685,774
Actual Expenditure (NT\$)	35,950,186
Tuition and Fee Revenue (NT\$)	498,251,091
Budget Allocation as a Percentage of Tuition and Fee Revenue	8.37%
Actual Expenditure as a Percentage of Tuition and Fee Revenue	7.22%
University-funded Scholarships and Financial Aid (NT\$)	9,534,667
Recipients of Project-based Student Assistantships	772
Project-based Student Assistantship Funding (NT\$)	16,470,745
Recipients of General Student Assistantships / Learning Stipends	1,477
General Student Assistantship / Learning Stipend Funding (NT\$)	8,143,040
Recipients of Living Assistance Grants	114
Living Assistance Grant Funding (NT\$)	708,000

▪ Note: Statistics include only University-funded scholarship and financial aid expenditures and exclude funding from other projects.

3-5 Campus Safety and Health

SDGs | 3, 4, 5, 8

SDG Targets | 3.3, 3.4, 3.9, 3.d, 5.2, 5.6, 8.8

To ensure the health, safety, and well-being of faculty, staff, and students across all campus facilities, National Formosa University (NFU) has established the Occupational Safety and Health Policy. The University is committed to identifying and eliminating hazards that may cause occupational illness, injury, disability, or fatality, while fostering a strong culture of safety and health throughout the campus. Guided by the principle of safeguarding the health and safety of all members of the University community, NFU continuously strengthens its safety management practices and preventive measures to provide a safe, healthy, and high-quality learning and working environment.

Environmental Protection and Occupational Safety and Health

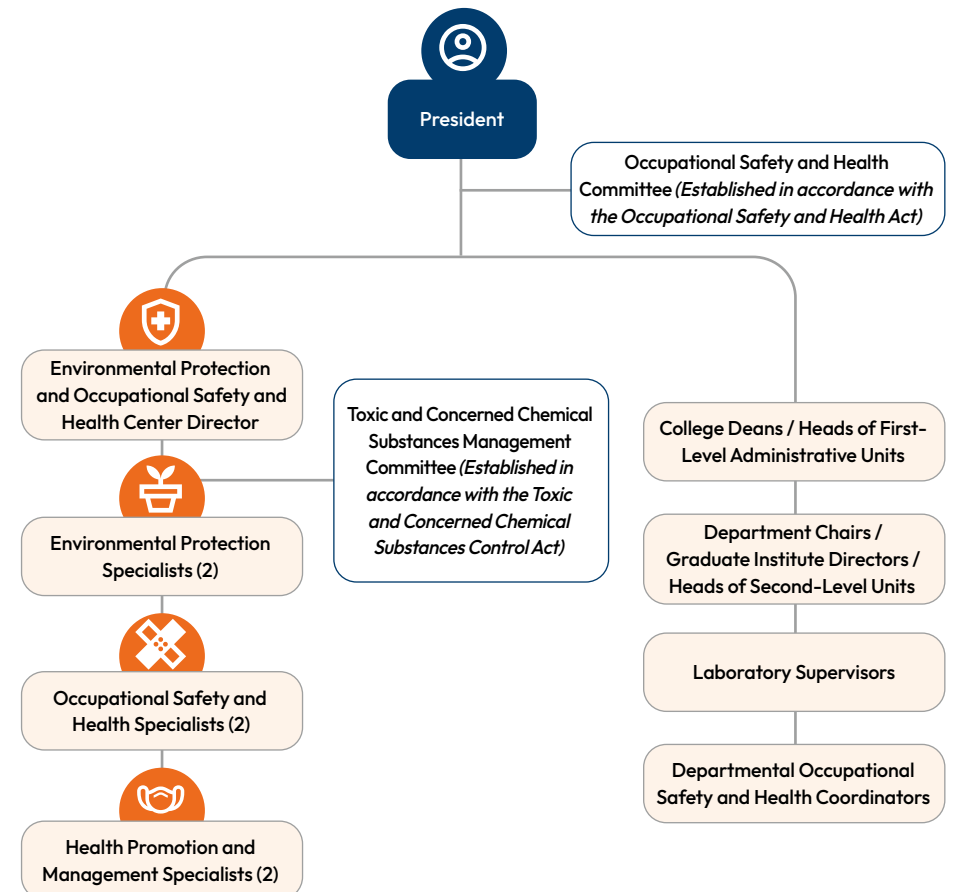
To safeguard the health and safety of faculty, staff, students, and other campus personnel, NFU has established the National Formosa University Occupational Safety and Health Management Regulations in accordance with the Occupational Safety and Health Act and its related regulations. The University has established a comprehensive occupational safety and environmental management structure, including the Occupational Safety and Health Committee and the Environmental Protection and Occupational Safety and Health Center. The Committee convenes quarterly and is chaired by senior University leadership. Members include the President, Vice President, Director of the Environmental Protection and Occupational Safety and Health Center, occupational safety and health personnel, heads of first-level administrative and academic units, representatives from the General Affairs Office, labor representatives (including representatives from the Labor-Management Committee), civil service safety officers, and student representatives. The Committee is responsible for reviewing the University's occupational safety and health policies, evaluating management performance, and discussing occupational accidents or incidents, when applicable, to identify root causes and implement preventive and corrective measures for continual improvement.

In addition, the Environmental Protection and Occupational Safety and Health Center provides dedicated contact channels, including an official email address and contact information for responsible personnel. Faculty and staff may seek consultation or report occupational safety and health concerns at any time. Significant issues may also be formally submitted to the Occupational Safety and Health Committee for discussion and resolution.



▲ CPR & AED First Aid Training

Organizational Structure of Environmental Protection and Occupational Safety and Health at National Formosa University



Occupational Safety and Health Education and Training

To ensure compliance with the Occupational Safety and Health Act and the Regulations Governing Occupational Safety and Health Education and Training, NFU has established the National Formosa University Guidelines for Occupational Safety and Health Education and Training. The Guidelines are designed to protect the health, safety, and well-being of faculty, staff, and student employees by reducing the risk of occupational injuries and promoting safe work practices. They also strengthen hazard awareness and risk prevention among newly appointed faculty, staff, and students, enabling them to recognize workplace hazards and develop the knowledge and skills necessary for accident prevention and emergency response. NFU provides a comprehensive occupational safety and health education and training program covering the following areas:

Occupational Safety and Health Education and Training Program

Training Program	Implementation Schedule	Participants	Training Duration
Occupational Safety and Health Orientation for New Employees	Upon onboarding of new employees or when current employees are reassigned to different positions	Newly appointed employees and employees assigned to new job duties	At least 3 hours per person
General Occupational Safety and Health Training	Twice annually	Faculty and staff	3 hours per person
Occupational Safety and Health Training for New Students (General Safety and Health Training)	Within one month after the start of the academic semester	All new students	3 hours per person
Occupational Safety and Health Training for New Students (Machine Safety and Hazard Awareness Training)	Within one month after the start of the academic semester	New students who are required to enter laboratories or practical training facilities	3 hours per person

Implementation of Occupational Safety and Health Education and Training

Year	Training Sessions	Participants
2022	26	2,715
2023	25	2,894
2024	12 (Some Courses for First-Year Students Were Conducted Online)	1,619
2025	12	2,124

In 2024, NFU adopted a hybrid training model combining in-person and online occupational safety and health education and training. As a result, the number of in-person training sessions was reduced to 12, with the remaining sessions delivered online. As this was the first year of implementing online training, participation declined due to the transition to the new delivery format and the initial adjustment of the communication and registration process.

In 2025, NFU continued to offer both online and in-person occupational safety and health education and training. The number of in-person sessions remained at 12, while total participation increased to 2,124 attendances, returning to a level comparable to that of 2023. Through the continued implementation of diversified training approaches, the University further strengthened occupational safety awareness and promoted sustainability awareness among faculty, staff, and students.



Occupational Safety and Health Committee -1



Occupational Safety and Health Orientation for New Students -1



Occupational Safety and Health Orientation for New Employees -1



Occupational Safety and Health Committee -2



Occupational Safety and Health Orientation for New Students -2



Occupational Safety and Health Orientation for New Employees -2



Faculty and Staff Health Promotion

To safeguard the health, safety, and well-being of faculty and staff while preventing work-related musculoskeletal disorders, psychological stress, and other emerging occupational health risks, NFU implements a Health Service Program to strengthen workplace health management. Guided by the vision of promoting healthy lifestyles and fostering a healthy campus community, the University is committed to becoming a Health-Promoting University through sustainable health management. The program encompasses three major components: health protection, health promotion, and the implementation of the Four Major Occupational Safety and Health Protection Programs.

1. Health Examinations and Follow-up Care

In accordance with Article 20 of the Occupational Safety and Health Act and the Regulations for Labor Health Protection, NFU implements a comprehensive health examination program. Newly appointed employees are required to undergo pre-employment health examinations, while faculty and staff receive periodic health examinations based on their age and job category. The program also includes special health examinations for personnel engaged in hazardous operations, as well as other health examinations required by the competent authority. When abnormal health examination results are identified, occupational health professionals provide health education and counseling. Employees are advised to return for follow-up medical evaluations within three or six months, depending on the recommendations of an occupational medicine physician. Each identified case receives at least one follow-up consultation to ensure appropriate health management.

2. On-site Occupational Health Services

To further promote the physical and mental well-being of faculty and staff, NFU collaborates with Changhua Hospital, Ministry of Health and Welfare, to provide on-site occupational health services. An occupational medicine physician visits the campus approximately once every two months, providing six service sessions annually, with each session lasting three hours. These services include consultation on health examination reports, personalized health counseling, and recommendations for individual health management. The occupational medicine physician also conducts workplace inspections and provides recommendations for improving workplace safety and health, thereby contributing to a safer and healthier working environment for all University members.

3. Automated External Defibrillator (AED) Installation and Training

NFU has installed six Automated External Defibrillators (AEDs) across its three campuses and student residential areas to strengthen campus emergency response capabilities. In 2024, the University implemented comprehensive AED maintenance and training measures, including: Semiannual preventive maintenance of all AED units. Replacement of AED electrode pads in May 2024 and battery replacement for the Electrical Engineering Building and Administration Building AED units in September 2024. Organization of six AED and CPR training sessions for AED management personnel. A total of 15 personnel enrolled, 19 participants successfully completed the training, and the AED manager certification rate reached 100%.

- In addition, NFU continued to enhance the quality of its emergency response system by obtaining AED Safe Site Certification for five locations on August 27, 2025.
- Followed by certification for one additional location on October 8, 2025.

AED Installation and Training

AED Location	AED Coordinator	Certification Valid Until	Maintenance Record	Routine Inspection	Preventive Maintenance (Twice Annually)
Men's Dormitory III	Lin	Apr. 8, 2027	Electrode pads replaced on Jun. 7, 2025	1. Daily inspections conducted by the AED coordinator. 2. Inspection records are submitted monthly to the Environmental Protection and Occupational Safety and Health Center and maintained by the occupational health nurse.	1. First half: May 7, 2025 2. Second half: Nov. 14, 2025
Green Building	Hsu	May 16, 2026			
Administration Building	Ho	Oct. 9, 2027			
Electrical Engineering Building	Chao	Jul. 8, 2027			
Swimming Pool	Lin	Jul. 8, 2027			
College of Humanities and Applied Sciences Building	Peng	Jul. 23, 2027			

Number of AED Units

6

AED Maintenance Frequency

Once every 6 months

Training Program: AED and Emergency Response Training

Training Sessions: 4 Participants: 119 Certified Participants: 119

AED Safe Site Certification

Yes



Student Activity Center
Apr. 30, 2025



Security Office, Campus I
Apr. 30, 2025

Health Promotion

Beyond health protection initiatives, NFU actively promotes a healthy campus through a wide range of health promotion and wellness programs designed to foster healthy lifestyles and improve the physical and mental well-being of faculty, staff, and students. These initiatives include Tai Chi classes, health promotion seminars, Vegetarian Tuesday programs, seasonal influenza vaccination for faculty and staff aged 50–64, yoga classes, participation in the Sport i Taiwan Program, as well as various health promotion and safety awareness activities.

Program	Sessions / Participation
Morning Baduanjin and Five-Element Health Exercise Group Practice	Every Thursday (voluntary participation)
Heat Stress Prevention Awareness Program	1 session; 35 attendances
In-service Training on Dengue Fever Prevention	1 session; 31 attendances
Seasonal Influenza Vaccination for Employees Aged 50–64	1 session; 52 attendances
Yunlin County 7,000 Steps a Day Challenge	1 session; 9 attendances
Thursday Self-funded Rumba Classes	51 sessions; 1, 275 attendances
Tuesday Pilates and Yoga Classes	51 sessions; 1,690 attendances
Sport i Taiwan Program	50 sessions; 1,590 attendances
Stress Management Workshop	1 session; 43 attendances
Online Workplace Bullying Prevention Course	1 session; 50 attendances
Workplace Violence Prevention Training (Supervisors)	1 session; 47 attendances
Workplace Violence Prevention Training (Administrative Staff)	1 session; 52 attendances
Workplace Violence Prevention Training (Faculty Advisors)	1 session; 40 attendances
Sexual Harassment Prevention Awareness Program	1 session; 26 attendances
Comprehensive Nutrition for Combating Mental Fatigue	1 session; 62 attendances
Heat Stress Prevention Training for High-temperature Work Environments	1 session; 35 attendances
Foot Health Seminar	1 session; 32 attendances

In 2025, NFU continued to organize a wide range of health promotion activities, with a greater number of in-person events than in 2024. Total participation reached approximately 5,100 attendances, representing a 20% increase over the previous year. Through these initiatives, the University continued to promote healthy lifestyles, enhance the health and well-being of faculty and staff, and foster a healthy and sustainable campus environment.



◀ Workplace Violence Prevention Seminar for Faculty Advisors

▼ Workplace Violence Prevention Training

▼ Nutrition Seminar: Combating Mental Fatigue Through a Balanced Diet



▲ In-service Training on Dengue Fever Prevention

▲ Heat Stress Prevention Training

▶ Sport i Taiwan Program



Implementation of the Four Major Occupational Safety and Health Protection Programs

In accordance with the Occupational Safety and Health Act, NFU has established and implemented the Four Major Occupational Safety and Health Protection Programs to strengthen workplace health risk management and safeguard the health, safety, and well-being of faculty and staff. These programs include: National Formosa University Ergonomic Hazard Prevention Program; National Formosa University Abnormal Workload-induced Disease Prevention Program; National Formosa University Workplace Violence Prevention Program; National Formosa University Maternal Health Protection Program for Female Employees.



Ergonomic Hazard Prevention Program

One case was accepted and successfully completed.



Abnormal Workload-induced Disease Prevention Program

Risk assessments and awareness activities were conducted through questionnaires and on-site occupational health services. In 2024, three employees with elevated risk assessment scores were referred for consultations with an occupational medicine physician. Following the consultations, no formal cases required further case management.



Workplace Violence Prevention Program (excluding sexual assault and sexual harassment)

One case was received. Following fact-finding, coordination meetings, and mediation, the case was successfully resolved and closed.



Maternal Health Protection Program for Female Employees

A total of 16 cases were managed in 2025, including 2 faculty members (one international faculty member from Vietnam) and 14 administrative staff members. Each case received individualized support from an occupational health nurse, including prenatal health education, pregnancy and postpartum care, parenting consultation, workplace assessments during pregnancy, access to lactation rooms and breastfeeding guidance, and follow-up support upon returning to work after maternity or parental leave.

Student Health and Well-being

To promote the physical and mental well-being of students and strengthen campus health services, NFU has established the Health Committee, the Health Services Section, and the Student Counseling and Consultation Center to provide comprehensive health care and support services. These units are responsible for emergency medical response and first aid, health examinations for new students, follow-up care and health management for students with identified health concerns, implementation of health promotion programs, partnerships with affiliated hospitals and clinics, health and safety education and first aid training, counseling and psychological support services, and mental health education and awareness programs. In addition, the University regularly organizes a variety of health promotion activities to foster healthy lifestyles and create a safe, healthy, and supportive campus environment.

Student Health and Well-being Activities (2025)

Program	Sessions / Participation
Health Examinations for New Students	4 sessions; 3,012 students
Vaccination Program	1 session; 146 participants
First Aid Education and Training	4 sessions; 119 participants
Health Promotion Activities	93 sessions; 7,441 attendances
Psychological Counseling and Support	Group counseling: 50 sessions; 270 attendances Individual counseling: 371 students; 2,957 attendances
Smoking Cessation Program	4 sessions; approximately 48 attendances
Tobacco, Drug Abuse, and HIV/AIDS Prevention Education	4 sessions; 240 participants
Blood Donation Campaign	5 sessions; 1,336 participants
Big Hands Helping Little Hands Sexual Health Education Outreach Program	6 sessions; 404 participants



Tuesday Healthy Vegetarian Day



▲ First Aid Education and Training



▲ Stress Relief and Wellness Workshop



Seminar on Tobacco, Drug Abuse, and HIV/AIDS Prevention

Sports and Physical Activity

To promote students' physical and mental well-being and contribute to SDG 3: Good Health and Well-being, National Formosa University (NFU) is committed to fostering an active campus culture and cultivating lifelong exercise habits among students. Participation in sports not only encourages healthy lifestyles but also enhances self-confidence, self-esteem, time management, and stress management skills.

Campus Sports Activities (2025)

(Jan. 1 – Dec. 31, 2025)



Basketball

220 Participants



Volleyball

200 Participants



Table Tennis

34 Participants



Badminton

116 Participants



University Tug of War
Competition

80 Participants



University Anniversary
Sports Day

1, 216 Participants



Water Sports Meet

135 Participants

Awards and Achievements in the 2025 National Intercollegiate Athletic Games and Intercollegiate Athletic League Championships

(Jan. 1 – Dec. 31, 2025)



**Intercollegiate
Athletic League
Championships**

Intercollegiate Volleyball League – Women's Division II	Champion
Intercollegiate Basketball League – Men's Division I	8th Place
Intercollegiate Baseball League – General Men's Division	5th Place



**National
Intercollegiate
Athletic Games**

National Intercollegiate Athletic Games – General Mixed Tennis Doubles	Gold Medal	National Intercollegiate Athletic Games – Men's 4 × 100 m Freestyle Relay (Open Division)	5th Place
National Intercollegiate Athletic Games – Men's Hammer Throw (Open Division)	Gold Medal	National Intercollegiate Athletic Games – Men's Badminton Team Event (Open Division)	5th Place
National Intercollegiate Athletic Games – Women's Tennis Singles (General Division)	Silver Medal	National Intercollegiate Athletic Games – Women's Hammer Throw (Open Division)	5th Place
National Intercollegiate Athletic Games – Men's Tennis Singles (General Division)	Silver Medal	National Intercollegiate Athletic Games – Mixed 4 × 100 m Freestyle Relay (Open Division)	7th Place
National Intercollegiate Athletic Games – Men's High Jump (Open Division)	Bronze Medal	National Intercollegiate Athletic Games – Men's 100 m (General Division)	7th Place
National Intercollegiate Athletic Games – Men's 4 × 200 m Freestyle Relay (Open Division)	Bronze Medal	National Intercollegiate Athletic Games – Men's High Jump (Open Division)	7th Place
National Intercollegiate Athletic Games – Women's Hammer Throw (Open Division)	4th Place	National Intercollegiate Athletic Games – Men's 4 × 100 m Medley Relay (Open Division)	7th Place
National Intercollegiate Athletic Games – Men's Table Tennis Doubles (Open Division)	5th Place	National Intercollegiate Athletic Games – Men's 4 × 100 m Relay (Open Division)	8th Place
National Intercollegiate Athletic Games – Men's 200 m Backstroke (Open Division)	5th Place	National Intercollegiate Athletic Games – Men's 400 m Individual Medley (Open Division)	8th Place
National Intercollegiate Athletic Games – Men's Tennis Team Event (Open Division)	5th Place	National Intercollegiate Athletic Games – Mixed 4 × 100 m Medley Relay (Open Division)	8th Place

The Office of Physical Education organizes a wide range of annual sporting events, including the Freshman Cup, Interdepartmental Sports Tournament, University Anniversary Sports Day, and Water Sports Meet, creating diverse opportunities for students to engage in physical activity and strengthening the campus sports culture. In addition, NFU's varsity teams actively compete in the National Intercollegiate Athletic Games and various Intercollegiate Athletic League Championships, consistently achieving outstanding results and demonstrating the University's commitment to excellence in sports development.



University Anniversary Sports Day

2025



NFU President with the University's Delegation at the 2025 National Intercollegiate Athletic Games

NFU Tennis Team Won the Gold Medal in the General Mixed Doubles Event at the 2025 National Intercollegiate Athletic Games



NFU Track and Field Team Won the Gold Medal in the Men's Hammer Throw (Open Division) at the 2025 National Intercollegiate Athletic Games

NFU Delegation at the Opening Ceremony of the 2025 National Intercollegiate Athletic Games

2025 University Anniversary Sports Day

2025 Freshman Cup Table Tennis Tournament



2025 Freshman Cup Badminton Tournament



2025 Freshman Cup Basketball Tournament



2025 University Tug of War Competition



▲ 2025 Interdepartmental Basketball Tournament

▼ 2025 Interdepartmental Table Tennis Tournament



▲ 2025 Interdepartmental Badminton Tournament

2025 Freshman Cup



NFU Women's Volleyball Team Won the Championship in the 2025 Intercollegiate Volleyball League (Division II)



2025 Interdepartmental Volleyball Tournament



The background features a complex abstract design. Large, overlapping geometric shapes in vibrant orange and deep blue dominate the left and bottom portions. A central image of a modern building with a glass facade and a tree is partially visible through the blue shapes. Thin, light blue lines crisscross the composition, adding a sense of movement and structure. The overall aesthetic is contemporary and dynamic.

04

Educational Innovation and Industry Collaboration

Management of Material Topics

Sustainability Dimension University Governance

Corresponding SDGs

Material Topic

Teaching Quality and Learning Outcomes;
Student Internships and Career Development

Corresponding GRI Standards

Organization-specific Topic

Policies and Commitments

1. To enhance teaching quality and establish distinctive educational excellence, NFU continuously strengthens the integration of teaching resources while reinforcing general education, language proficiency, and diverse arts and cultural programs. The University also actively promotes international academic exchange and collaboration to cultivate well-rounded graduates with both professional expertise and global competencies.
2. NFU strengthens practical learning and industry-academia collaboration to fulfill its social responsibility in talent cultivation. By expanding partnerships with industry and promoting internship opportunities, the University enhances students' practical skills, aligns learning with industry needs, narrows the gap between academic training and workplace expectations, and enables students to gain early workplace experience and improve their employability.

Grievance Mechanisms

- Campus App - "Feedback" Function
- Student Rights Assembly

Actions and Achievements

A total of 160 enterprises provided internship opportunities, successfully placing

599 students

in internship programs.

A total of 2,385 professional certifications were obtained by students, while students received

202

competition awards,

further enhancing their professional competencies and employability.

NFU offered 91 innovative teaching courses, attracting

4,515
attendances

The University also implemented 21 interdisciplinary programs and 125 adaptive learning courses, with more than

3,300
attendances

as well as 24 "15+3" interdisciplinary learning courses with a total of

1,139
attendances

The University offered 40 University Social Responsibility (USR) practice-oriented courses, with

4,444
student
attendances

In collaboration with 31 non-profit organizations (NPOs), students completed 99 community-based learning projects and contributed

855
attendances
off-campus
service



Objectives

1. Encourage faculty members to adopt innovative course designs and diverse teaching approaches to enhance teaching effectiveness and student learning outcomes.
2. Support students in career exploration, career planning, and access to internship and employment opportunities.

4-1 Student Internships and Career Development

SDGs | 8

SDG Targets | 8.3

Student Internships and Professional Certifications

To cultivate professionals equipped with practical skills, innovation capabilities, and career readiness, National Formosa University (NFU) continues to strengthen industry-academia collaboration and experiential learning opportunities. By expanding partnerships with industry and promoting structured internship programs, the University fulfills its social responsibility in talent development while enhancing students' practical competencies. These initiatives align academic learning with industry needs, narrow the gap between education and employment, provide students with early workplace experience, and improve their employability.

NFU also places strong emphasis on the acquisition of professional certifications as an important indicator of students' technical competencies and career competitiveness. In 2025, the University served as an authorized examination center for five categories of the iPAS (Industry Professional Assessment System) certification. In addition, NFU continued to offer professional certification preparation courses and ISO international certification programs, while providing guidance and incentive schemes to encourage students to obtain professional certifications and participate in certification examinations and professional competitions. Furthermore, professional certifications have been integrated into interdisciplinary programs, with certification requirements incorporated as program completion criteria and supported through a comprehensive certification guidance mechanism to strengthen students' professional expertise and career readiness.

Student Internship

Participation

Academic Year	Number of Student Interns
110 (2021-2022)	540
111 (2022-2023)	700
112 (2023-2024)	865
113 (2024-2025)	861
114 (2025-2026)	391

Student Certifications and Awards

Academic Year	Number of Professional Certifications Obtained	Number of Awards Won in Competitions
110	2,086	174
111	1,834	187
112	861	186
113	391	202

Career Development

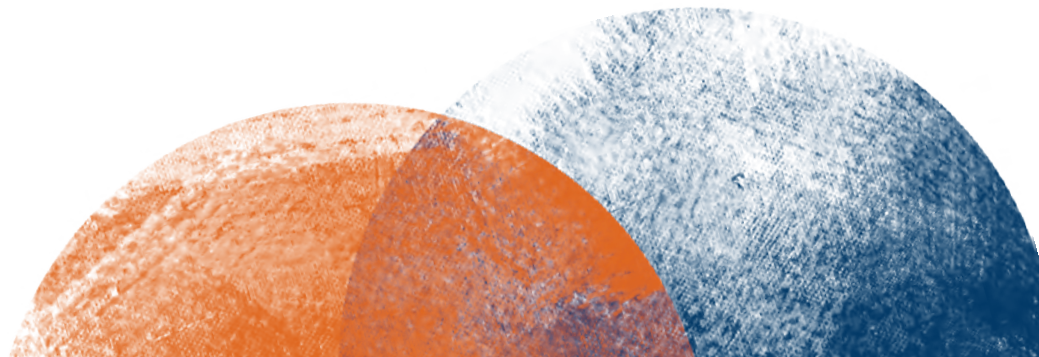
National Formosa University (NFU) has established a dedicated Career Development Center to integrate on- and off-campus resources and provide comprehensive career development services for both current students and alumni. Guided by the educational philosophy of bridging academic learning and professional practice, the Center supports students in career exploration, career planning, career counseling, and employment matching, enabling them to establish clear career goals and strengthen their employability before graduation. In addition, the Center continuously provides industry information and career support services to assist alumni in their professional development, facilitating a seamless transition from academic study to the workplace. In 2025, the Center organized the Yunlin Regional Campus Recruitment Fair, bringing together 116 employers and offering approximately 4,000 job opportunities. More than 2,000 résumés were submitted by students, resulting in nearly 1,000 successful employment matches. NFU also hosted the Taichung Machine Tool Cup CNC Multi-axis Machining Skills Competition and the National Industrial Skills Competition, attracting nearly 400 competitors with a total prize pool of NT\$1.038 million. These initiatives demonstrate the University's commitment to career education, industry engagement, and the cultivation of highly skilled professionals.

Career Development Outcomes (2025)

Program	Outcomes
Student Internship Matching Services	160 companies provided internship opportunities, successfully placing 599 students in internship programs.
Yunlin Regional Campus Recruitment Fair	116 employers participated - offering approximately 4,000 job opportunities - Students submitted 2,042 résumés - resulting in 818 successful employment matches
Career Exhibitions and Company Visits	10 events
Career Exploration and Planning Seminars	30 seminars
Taichung Machine Tool Cup CNC Multi-axis Machining Skills Competition	248 attendances
National Industrial Skills Competition (co-organized by National Formosa University, the Yunlin-Chiayi-Tainan Branch of the Ministry of Labor's Workforce Development Agency, and Fair Friend Group)	150 attendances

Graduate Destination Survey

To better understand the post-graduation outcomes of its students, National Formosa University (NFU) conducts an annual Graduate Destination Survey through telephone interviews. The survey systematically tracks graduates' career pathways, including their pursuit of further education and employment status. The survey results provide valuable insights into graduates' academic and career development, support the evaluation of educational effectiveness, and serve as an important reference for curriculum improvement, career guidance services, and talent cultivation strategies. Through continuous monitoring of graduate outcomes, NFU strengthens the alignment between academic programs and workforce needs while enhancing students' career readiness and long-term employability.



Graduate Destination Survey Results – Undergraduate Programs

Academic Year of Graduation	Number of Graduates	Survey Respondents	Response Rate (%)	Graduate Destinations (%)				
				Employment	Further Education	Military Service	Seeking Employment	Others
109 (2020–2021)	2,317	2,156	93.05	38.59	24.54	23.52	5.64	7.71
110 (2021–2022)	2,288	2,170	94.84	37.00	25.48	26.91	5.17	5.44
111 (2022–2023)	2,323	2,195	84.94	39.23	28.61	21.41	5.11	5.64
112 (2023–2024)	2,245	2,096	93.36	34.31	29.91	23.47	5.22	7.09
113 (2024–2025)	2,359	2,200	93.26	27.68	30.77	27.50	6.40	7.65

Graduate Destination Survey Results – Master's and Doctoral Programs

Academic Year of Graduation	Number of Graduates	Survey Respondents	Response Rate (%)	Graduate Destinations (%)				
				Employment	Further Education	Military Service	Seeking Employment	Others
109 (2020–2021)	414	385	93.00	61.82	1.56	28.05	3.81	4.76
110 (2021–2022)	342	334	97.66	55.69	0.90	31.14	4.22	8.05
111 (2022–2023)	464	461	99.35	49.46	1.30	30.37	4.96	13.91
112 (2023–2024)	441	440	99.77	49.09	0.91	32.27	4.82	12.91
113 (2024–2025)	525	497	94.67	45.67	1.81	41.85	8.45	2.22

4-2 Teaching Quality and Sustainability Education

SDGs | 1-17

SDG Targets | 4.4, 4.6, 12.8

To enhance teaching quality and establish distinctive educational excellence, National Formosa University (NFU) continuously strengthens students' professional knowledge while integrating teaching resources to create a high-quality learning environment. The University further reinforces general education, language proficiency, and arts and cultural programs to enrich campus life and foster a vibrant humanities-oriented learning environment. In addition, NFU actively promotes international academic exchange and collaboration, broadening students' global perspectives and intercultural competencies. Through these initiatives, the University is committed to cultivating well-rounded graduates equipped with professional expertise, language proficiency, artistic appreciation, creativity, leadership, communication, presentation, critical thinking, analytical skills, and a global outlook, enabling them to thrive in an increasingly interconnected and rapidly changing world.

Distinctive Teaching and Learning Programs

1. Interdisciplinary Programs

NFU actively encourages colleges and academic units to establish interdisciplinary programs that integrate expertise across multiple disciplines. The University currently offers 23 cross-college interdisciplinary programs, providing diverse learning opportunities beyond traditional disciplinary boundaries. In addition, NFU continues to expand digital technology micro-programs and Industry Academy programs to strengthen students' professional competencies and facilitate a seamless transition from university to employment.

2. Personalized Learning

NFU promotes personalized learning through a flexible credit system that includes micro-credits, self-directed learning, deep learning courses, and interdisciplinary credit courses. These flexible learning pathways encourage students to engage in practical, hands-on learning and explore real-world professional issues, thereby enhancing self-directed learning abilities and fostering a diverse and student-centered learning environment.

3. Interdisciplinary Learning (15+3 Model)

To promote interdisciplinary learning and encourage innovative teaching practices, NFU has implemented the 15+3 Interdisciplinary Learning Model. Under this model, the regular semester is condensed into 15 weeks of classroom instruction, followed by three additional weeks dedicated to interdisciplinary learning activities. Faculty members integrate innovative teaching approaches, project-based learning, practical training, and field-based learning experiences, providing students with broader interdisciplinary learning opportunities and experiential education.

4. Innovative Teaching

NFU encourages faculty members to adopt innovative teaching approaches by integrating diverse pedagogical models into course design. These include problem-driven teaching, evidence-based instructional design and assessment, STEM education, industry-academia collaborative teaching, and University Social Responsibility (USR)-based experiential learning. Through these initiatives, the University enhances teaching effectiveness while cultivating students' interdisciplinary competencies, problem-solving skills, self-directed learning, foundational knowledge, and general education competencies.

5. Scholarship of Teaching and Learning (SoTL) Projects

NFU actively promotes the Ministry of Education's Scholarship of Teaching and Learning (SoTL) Program by organizing regular experience-sharing sessions, distinguished lectures, and professional development workshops. Faculty members are encouraged to identify and analyze teaching challenges, implement appropriate instructional strategies and teaching tools, and continuously evaluate their effectiveness. The findings are applied to improve teaching quality, enhance student learning outcomes, and support evidence-based teaching innovation and continuous curriculum improvement.

6. Required Interdisciplinary Courses in the College of Humanities and Applied Sciences

The College of Humanities and Applied Sciences offers required interdisciplinary courses in which students from different academic departments learn together in mixed-class settings. Faculty members and industry professionals jointly guide students in identifying and addressing regional issues through collaboration with non-profit organizations (NPOs) and social enterprise practitioners. Using issue-based learning, interactive practice, and field-based instruction, students integrate disciplinary knowledge, technical expertise, and community resources to explore local characteristics, engage community stakeholders, and develop practical solutions to regional challenges. At the end of each semester, student teams present their project outcomes in a public exhibition, where outstanding projects are recognized through an awards program.

Distinctive Teaching and Learning Programs (2025)

Program	Courses Offered	Participation
Interdisciplinary Programs	21 interdisciplinary programs	
Personalized Learning (Micro-credits, Self-directed Learning, and Deep Learning Courses)	45 micro-credit courses 39 self-directed learning courses 41 deep learning courses	979 attendances 916 attendances 1,479 attendances
15+3 Interdisciplinary Learning Model	24 courses (as of Semester 2, Academic Year 113)	1,139 attendances (as of Semester 2, Academic Year 113)
Innovative Teaching Courses	91 courses	4,515 attendances
Scholarship of Teaching and Learning (SoTL) Projects	21 courses	944 attendances
Required Interdisciplinary Courses – College of Humanities and Applied Sciences	10 classes: Innovation and Entrepreneurship Competencies 10 classes: Interdisciplinary Sustainability Practice	261 students 296 students

Photos of Course Outcomes



Micro-credit Course: "Practical Applications of Intelligent Adjustable Spectrum and Environmental Monitoring Modules in Plant Factories." Students applied LED lighting technologies in plant factories through hands-on group activities and scenario-based learning, connecting classroom knowledge with practical applications.



Micro-credit Course: "Manufacturing Techniques and Practical Applications of a Twin-cylinder Pneumatic Engine." Through intensive, hands-on training modules, students explored the relationship between machining parameters and manufacturing outcomes. Photo: Flywheel machining using a lathe.



▲ Self-directed Learning Course: "3D Printing." Combining design, slicing, and practical printing, the course featured instruction from industry professionals while encouraging peer learning to develop students' knowledge and practical skills in 3D printing.



▲ Self-directed Learning Course: "Applications of Low-resistivity Metal Silicides and Semiconductors." Students learned the critical role of metal silicides in advanced semiconductor manufacturing processes. Photo: Instructor demonstrating the operation of a high-vacuum triple-target sputtering system.

► Game Art Design, Semester 2, Academic Year 113 (2024–2025): Students participating in a live character role-playing activity.



▼ Introduction to Embedded Systems, Semester 1, Academic Year 114 (2025–2026): Students presenting practical, everyday applications developed through their final projects.



► Exploring Life Sciences, Semester 2, Academic Year 113 (2024–2025): Students learning about human anatomy through hands-on activities.



► Interdisciplinary Sustainability Practice, Semester 1, Academic Year 114 (2025–2026): Students participating in a hand-bound bookmaking workshop.



2025 College of Humanities and Applied Sciences Required Course – Final Interdisciplinary Project Exhibition for “Innovation and Entrepreneurship Competencies,” Semester 2, Academic Year 113 (2024–2025)



▲ Student Project 1: presented at the final project exhibition for the required college course *Innovation and Entrepreneurship Competencies*.

▼ Student Project 2: presented at the final project exhibition for the required college course *Innovation and Entrepreneurship Competencies*.



▼ Judges evaluating the student projects and listening to students' presentations during the final project exhibition.



▲ Judges reviewing individual projects and discussing their concepts and outcomes with students.



▲ Award-winning student teams presenting their projects and receiving awards at the exhibition.

▼ Students, faculty members, and judges celebrating the successful conclusion of the final project exhibition.



2025 College of Humanities and Applied Sciences Required Course – Final Interdisciplinary Project Exhibition for “Interdisciplinary Sustainability Practice,” Semester 1, Academic Year 114 (2025–2026)



▲ Student Project 1 presented at the final interdisciplinary project exhibition for the required college course Interdisciplinary Sustainability Practice.

▼ Student Project 2 presented at the final interdisciplinary project exhibition for the required college course Interdisciplinary Sustainability Practice.



▼ Judges evaluating student projects and listening to students' presentations during the final project exhibition.



▲ Judges reviewing individual projects and discussing students' project concepts, implementation, and outcomes.



▲ Award-winning student teams receiving recognition during the project exhibition awards ceremony.

▼ Student team presenting its project during the final interdisciplinary project exhibition.



Learning Beyond the Classroom: Enriching Lives Through Community Engagement

In alignment with the Ministry of Education's policy and in response to evolving societal needs, National Formosa University (NFU) launched its Social Responsibility Practice Education program in Academic Year 112 (2023–2024). The program aims to cultivate students' commitment to local communities and sustainability while integrating disciplinary knowledge with experiential learning to strengthen their capacity to fulfill the University's social responsibility. The curriculum is organized into three components: Practice Education, Caring Education, and Environmental Education. Through incentive mechanisms that encourage the integration of the Sustainable Development Goals (SDGs) into course design, NFU continuously enhances teaching innovation and learning outcomes. By aligning innovative teaching approaches with local needs and sustainability-oriented service learning, the University engages all first-year students in meaningful community participation, thereby advancing University Social Responsibility (USR) and sustainable development.

1. Caring Education and Environmental Education

To encourage students to integrate academic knowledge, technical skills, and community resources, NFU collaborates with disadvantaged groups and non-profit organizations to deliver University Social Responsibility learning programs. These courses emphasize local engagement, humanitarian values, and environmental sustainability. During Academic Year 113 (2024–2025), a total of 7 courses were offered, attracting 2,816 attendances. The courses primarily contributed to SDG 3 (Good Health and Well-being) and SDG 17 (Partnerships for the Goals). NFU partnered with 31 non-profit organizations, providing students with 885 off-campus service-learning opportunities and completing 99 community engagement projects. These achievements demonstrate students' active commitment to local communities and social issues while strengthening collaborative partnerships with civil society organizations.

2. Practice Education

Practice Education encourages students to integrate theoretical knowledge with real-world applications through self-directed learning and faculty guidance. Students are encouraged to identify and address practical challenges within local communities, transforming academic learning into meaningful social action. During Academic Year 113 (2024–2025), NFU offered 33 Practice Education courses, with 1,628 students enrolled. The curriculum incorporated University Social Responsibility (USR) concepts and contributed primarily to SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 6 (Clean Water and Sanitation), SDG 11 (Sustainable Cities and Communities), and SDG 12 (Responsible Consumption and Production).

The courses were implemented across 29 community-based practice sites throughout Yunlin County and included 45 field investigation activities, involving 2,213 faculty and student attendances and 87 community participants. Key practice sites focused on the Huwei Sugar Factory and its surrounding cultural landscape, including significant heritage locations such as Huwei Railway Station, Tongxin Park, and the Huwei Iron Bridge, as well as the preservation and revitalization of cultural assets including the Yunlin Hand Puppet Museum, the Joint Office Building, and the Jianguo Military Dependents' Village in Huwei. Through interdisciplinary collaboration and field-based learning, students engaged with local development challenges, contributed to community revitalization, and demonstrated the impact of experiential learning and social engagement.

Course Highlights

★ Smart Agriculture Platform and Intelligent Living

This course adopted the CDIO (Conceive–Design–Implement–Operate) framework together with Problem-Based Learning (PBL) to integrate Python programming and generative AI applications. Students investigated challenges related to agricultural production and marketing through 5W2H field research, identified local needs, and analyzed government open data to understand regional industries and local economic characteristics. Based on their findings, students developed practical solutions while strengthening interdisciplinary competencies in digital technology, cultural awareness, and sustainable development.

A major outcome of the course was the development of the Shanghu Cloud Agricultural Production and Marketing Platform, an integrated system supporting both production management and product sales. Students enhanced their capabilities in system development and data analytics while collaborating with local restaurants to establish offline sales channels. The project promoted smart agriculture and online-to-offline (O2O) marketing, increasing the value and market visibility of local agricultural products.

★ AI Chatbots for Cultural Heritage Revitalization

Using Problem-Based Learning (PBL), this course emphasized interdisciplinary collaboration, field-based learning, sustainability, and local engagement. Students developed AI-powered chatbots for cultural heritage interpretation, addressing the real-world challenge of limited tour guide resources while strengthening critical thinking, problem-solving, and digital development skills.

To extend learning beyond the classroom, interdisciplinary student teams organized and delivered the "Iron Man Maker Camp," a summer STEAM program integrating AI applications and maker education for local schools. Planned and implemented entirely by students, the camp transformed disciplinary knowledge into educational service, demonstrating ESG values, inter-institutional collaboration, University Social Responsibility (USR), and community engagement.

★ Design Thinking in Practice

This course combined Design Thinking and Problem-Based Learning (PBL) with the principles of University Social Responsibility (USR). Following the design thinking process of Empathize, Define, Ideate, Prototype, Implement, and Evaluate, students developed user-centered approaches to analyzing and solving community challenges.

Working within the Holiwu Cultural Park community, students conducted field observations, interviews, and stakeholder engagement to identify local needs and translate them into practical solutions. One of the key outcomes was the planning and implementation of a theme-based educational activity for children, which strengthened interaction between students, local residents, and young participants through experiential learning. The course enhanced interdisciplinary collaboration, creativity, project implementation skills, civic engagement, and social responsibility.

★ Innovative Design for Sustainable Arts

Centered on community-engaged learning, this course integrated sustainable design, local culture, and industrial development. Students identified design opportunities from everyday life while developing interdisciplinary thinking and creative problem-solving skills through collaborative projects. The course also strengthened students' practical design capabilities together with digital storytelling, video production, and social media marketing skills. By connecting traditional craftsmanship with contemporary industrial innovation, students explored the balance between aesthetics and functionality while linking art, local industries, social development, and community well-being. These learning experiences deepened their understanding of sustainability and social responsibility through creative practice.

3. Awards and Recognition

- (1) Bronze Award, 9th Taipei Golden Eagle Microfilm Festival (Sustainability Category) – Awarded for a short film showcasing the achievements of the 2024 Social Responsibility Practice Education Program.
- (2) Award, 5th Sustainable Living Lab Awards – Received by the student team from the Smart Agriculture Platform and Intelligent Living course.
- (3) Resident Team Grant, 15th Rural Revitalization Competition for College Students – Awarded to the student team from the AI Chatbots for Cultural Heritage Revitalization course.
- (4) Honorable Mention, 2025 Sustainability Teaching Practice and Achievement Competition (TAISE) – Awarded to the course instructor in recognition of excellence in sustainability-oriented teaching.

4. Student Recognition and Incentive Program

To encourage sustained participation in volunteer service, NFU established the Huli Sustainability Practice Award in Academic Year 112 (2023–2024). The program encourages students to independently plan and participate in volunteer activities at community organizations before graduation. Students who complete 100 or 200 volunteer service hours receive certificates and recognition. In addition, the top three graduating students with the highest volunteer service hours are selected annually to receive the Huli Sustainability Practice Award and are publicly recognized during the University's commencement ceremony. In Academic Year 113 (2024–2025), 17 students received this honor for their outstanding commitment to volunteer service and community engagement.

Photos of Achievements

2025 永續生活實驗室獎
Living Lab Project Awards

佳作獎
新台幣 28,000 元

▲ **Smart Agriculture Platform and Intelligent Living**
The NFU Shanghu Cloud student team received an Honorable Mention at the Sustainable Living Lab Awards for its innovative smart agriculture platform.

▼ **AI Chatbots for Cultural Heritage Revitalization**
Students developed an AI-powered heritage interpretation chatbot, enabling visitors to engage in interactive conversations while exploring local history and cultural heritage.

▼ **Design Thinking in Practice**
Students designed and implemented an interactive educational challenge activity, providing elementary school students with an engaging and enjoyable learning experience.

▼ **Innovative Design for Sustainable Arts**
Students transformed wood into practical and aesthetically designed parking warning triangles through creative product design and hands-on fabrication. (Bottom-right photo courtesy of the Waste Material Exchange Platform.)

▲ **Sustainable Reuse of Environmental Materials**
Students creatively repurposed loofah sponges into innovative lighting products, demonstrating the potential of agricultural by-products in sustainable design.

材料循環再利用與行銷 暨 科技與生活應用 課程
「學生作品成果展」歡迎參觀
主辦：機電組、永續發展社實踐任務、通識教育中心

▲ **Value Creation through Circular Resource Practices**
Student projects showcased innovative design and manufacturing applications that transformed discarded wood into functional products.

▼ **Value-added Innovation for Agricultural, Fishery, and Livestock Products**
Students developed handcrafted soaps by creatively reusing peanut shells and spent coffee grounds, demonstrating innovative approaches to agricultural by-product utilization.

▼ **Huli Sustainability Practice Award**
Graduating students recognized for their outstanding contributions to volunteer service and community engagement through the Huli Sustainability Practice Award.

SHINE
國立虎尾科技大學

Continuing Education

NFU's Center for Continuing Education, under the Office of Academic Affairs, is responsible for planning and coordinating the University's continuing education programs. These programs include credit-bearing courses, non-credit professional development courses, the Ministry of Education's Active Aging University Program, vocational training programs commissioned by the Ministry of Labor, as well as community education initiatives such as the Huwei River Community University and the Farmers' University, commissioned by the Yunlin County Government. Drawing upon the University's academic expertise, faculty resources, and teaching facilities, the Center delivers a wide range of continuing education programs that promote professional knowledge and technical skills. In addition to serving individual lifelong learners, NFU also undertakes commissioned training programs for government agencies—including the Industrial Development Administration, Ministry of Economic Affairs, the Workforce Development Agency, Ministry of Labor—as well as private enterprises and local governments, providing engineering, technical, and community-based education tailored to regional needs.

Leveraging its extensive educational and administrative resources, NFU actively extends continuing education services throughout the Yunlin–Chiayi region. Through close collaboration with local governments and community organizations, the University offers programs that respond to regional characteristics, industrial transformation, and workforce upskilling needs. By integrating institutional resources with local development priorities, NFU enhances learning opportunities while contributing to regional economic and social development. In recognition of its outstanding performance in workforce development and training quality, NFU was awarded the Bronze Award in the 2025 Talent Quality-management System (TTQS) evaluation conducted by the Ministry of Labor. The certification is valid for two years.

In support of the Taiwanese government's policies on lifelong learning and adult education, NFU continues to offer a diverse range of professional and technical training programs that enable community members to continuously acquire new knowledge and skills, adapt to rapidly changing social and industrial environments, and strengthen lifelong employability.

The University's continuing education achievements in recent years are presented below.

Credit-bearing Continuing Education Programs

Academic Year	Programs Offered	Participant Attendances
109 (2020–2021)	15	292
110 (2021–2022)	11	155
111 (2022–2023)	9	166
112 (2023–2024)	15	312
113 (2024–2025)	16	496

Non-credit Continuing Education Programs

Academic Year	Programs Offered	Participant Attendances
109 (2020–2021)	40	993
110 (2021–2022)	43	1,025
111 (2022–2023)	42	1,002
112 (2023–2024)	53	1,283
113 (2024–2025)	32	760

Industry–Academia Cooperative Education Programs (Including Training Programs)

Academic Year	Programs Offered	Participant Attendances
109 (2020–2021)	20	837
110 (2021–2022)	25	944
111 (2022–2023)	31	947
112 (2023–2024)	34	1,014
113 (2024–2025)	38	1,080

Ministry of Labor Vocational Training Programs

Academic Year	Programs Offered	Participant Attendances
109 (2020–2021)	5 Youth Employment Flagship Programs + 1 Industry Talent Investment Program	121
110 (2021–2022)	3 Youth Employment Flagship Programs + 1 Industry Talent Investment Program	82
111 (2022–2023)	4 Youth Employment Flagship Programs + 1 Industry Talent Investment Program	90
112 (2023–2024)	5 Youth Employment Flagship Programs + 1 Industry Talent Investment Program	75
113 (2024–2025)	4 Industry Talent Investment Programs	104

Active Aging University Program

Academic Year	Programs Offered	Participant Attendances
109 (2020–2021)	1	35
110 (2021–2022)	1	27
111 (2022–2023)	Not offered due to insufficient enrollment	–
112 (2023–2024)	Not offered due to insufficient enrollment	–
113 (2024–2025)	Not offered due to insufficient enrollment	–

Huwei River Community University, Yunlin County

Academic Year	Programs Offered	Participant Attendances
109 (2020–2021)	158	2,800
110 (2021–2022)	138	2,098
111 (2022–2023)	143	2,229
112 (2023–2024)	128	1,937
113 (2024–2025)	148	2,108

Farmers' University

Academic Year	Programs Offered	Participant Attendances
109 (2020–2021)	6	408
110 (2021–2022)	5	161
111 (2022–2023)	4	181
112 (2023–2024)	12	167
113 (2024–2025)	11	259

General Education

To further strengthen liberal arts education, NFU established the General Education Center as an independent academic unit dedicated to delivering a comprehensive general education curriculum. Guided by its vision of cultivating well-rounded graduates who meet the evolving needs of society and industry, the Center equips students with the knowledge, competencies, and values required to address global challenges, support industrial innovation, embrace cultural diversity, and foster meaningful engagement with local communities. With students at the center of its educational philosophy, the General Education Center aims to nurture lifelong learners who possess broad perspectives, interdisciplinary knowledge, self-directed learning capabilities, and a strong commitment to continuous personal growth. The General Education curriculum is organized into four core learning domains: Creative Thinking and Self-exploration, Arts and Cultural Literacy, Technology and Civic Society, and Nature and Environmental Sustainability. Through these interdisciplinary learning experiences, the University cultivates students' critical thinking, civic responsibility, global awareness, and sustainability literacy, preparing them to become responsible citizens and professionals capable of contributing to sustainable social development.

Integrating the SDGs into General Education: Sustainable Development Literacy Program

Grounded in NFU's human-centered and service-oriented philosophy of general education, the University seeks to cultivate students' interdisciplinary competencies, social responsibility, and civic literacy. These educational goals are closely aligned with the United Nations Sustainable Development Goals (SDGs), which address shared global challenges across the economic, social, and environmental dimensions of sustainable development. By integrating the SDGs into general education, NFU helps students develop a deeper understanding of sustainability issues and strengthens their willingness and capacity to contribute to social and environmental well-being.

NFU's general education curriculum is characterized by interdisciplinary course design and participation by students from different colleges and departments. Since Academic Year 112 (2023–2024), the University has implemented the Sustainable Development Literacy Program, the first program in Taiwan to be planned and administered by a university general education center. The program enables students to understand the background, significance, and specific targets of the SDGs and to explore related social, economic, and environmental issues, including poverty, hunger, climate change, energy, water resources, health, education, and gender equality. It also encourages students to examine how these issues affect different groups and to consider possible solutions. Through course-based learning and practical activities, students are encouraged to participate in interdisciplinary sustainability initiatives and volunteer services, such as environmental protection activities, community development, and public-interest projects. These experiences help students connect academic knowledge with real-world social and environmental challenges.

The program also introduces students to environmental, social, and governance (ESG) principles. ESG refers to the three major dimensions considered by investors and businesses when evaluating organizational performance and long-term value. The environmental dimension focuses on environmental impacts and commitments to sustainability; the social dimension addresses social responsibility, labor practices, and human rights; and the governance dimension concerns

2025 General Education Courses and Activities

Course or Activity	Courses / Sessions Offered	Participant Attendances
General Education Courses	305 courses	16,661
Calculus Courses	179 courses	10,222
General Education Lectures	40 sessions	20,624

organizational structures, accountability, and risk management. By enhancing students' understanding of ESG issues, the program equips them with the awareness and competencies needed to address sustainability challenges in their future workplaces.

Accordingly, the Sustainable Development Literacy Program links university general education with the SDGs through general education sustainability courses and extends this learning to ESG-related knowledge through discipline-specific sustainability courses. The program aims to strengthen students' understanding of global sustainability issues, social responsibility, and civic literacy, thereby contributing to sustainable social development. Most importantly, the program seeks to cultivate sustainability awareness: a clear and responsible understanding of one's role on the planet and the impacts of one's choices. This awareness guides students in making everyday decisions and taking actions that are consistent with the principles of sustainable development.

The Sustainable Development Literacy Program is planned by the General Education Center and jointly implemented by the University's colleges. To balance foundational sustainability literacy with professional and disciplinary applications, the curriculum comprises both general education sustainability courses and discipline-specific sustainability courses. The list of recognized courses is reviewed and updated each semester based on faculty applications for sustainability course certification. Approved courses are then included in the course registration system according to instructors' teaching arrangements.

Program Highlights

1. Taiwan's first university sustainability literacy program led by a general education center.

2. A curriculum redesign and certification mechanism aligned with the 17 SDGs. Existing general education courses are redesigned to include at least six weeks of SDG-related content. A sustainability course certification mechanism has also been established to ensure the effective integration of SDG education into course content and teaching practices.

3. Publication and dissemination of implementation resources and outcomes. NFU has published the *Reference Guide for the Sustainable Development Literacy Program and SDGsology: General Education Newsletter* to share the University's approaches, practices, and achievements in integrating the SDGs into general education.

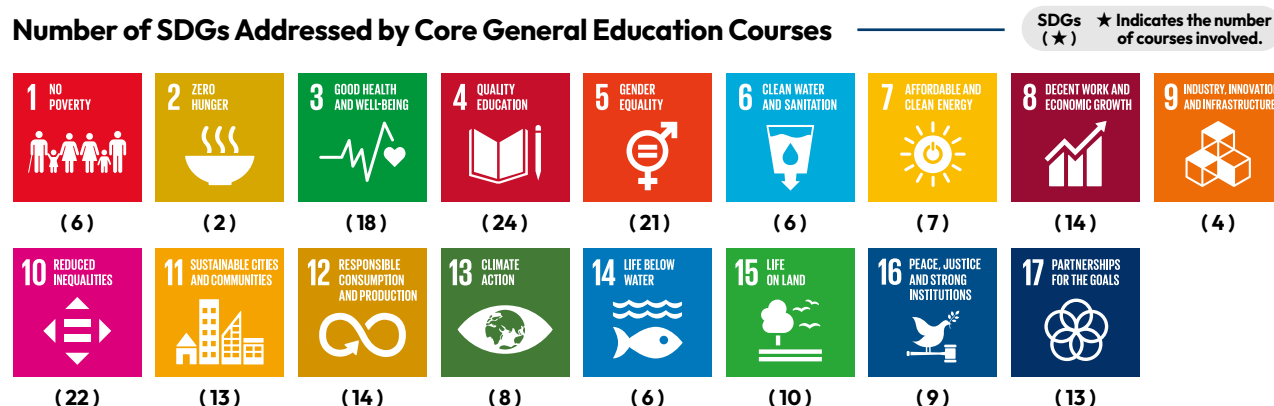


Center for General Education,
National Formosa University

Integrating the SDGs into General Education and the Sustainable Development Literacy Program

To effectively integrate the Sustainable Development Goals (SDGs) into general education, NFU has developed a flexible curriculum framework that combines individual and collaborative teaching approaches with both theme-based and place-based learning strategies. Four implementation models have been established: (1) Theme-based individual courses, (2) Theme-based interdisciplinary course collaborations, (3) Place-based individual courses, (4) Place-based interdisciplinary course collaborations. Participating faculty members review the alignment between their course content and the SDGs to identify appropriate opportunities for integration. This alignment serves as the basis for incorporating SDG-related content into existing courses and for the development of new general education courses. While maintaining the core philosophy and original learning objectives of each course, instructors identify suitable teaching modules and topics that can be connected with the SDGs, thereby embedding sustainability concepts into the curriculum in a meaningful and discipline-appropriate manner. To support the implementation of the Sustainable Development Literacy Program, NFU has also established a Sustainability Course Certification mechanism. Courses that successfully demonstrate meaningful integration of SDG-related learning outcomes are reviewed and approved by the General Education Center Curriculum Committee. Certified courses are subsequently recognized as official courses within the Sustainable Development Literacy Program, ensuring the quality, consistency, and continuous enhancement of sustainability education across the University.

Number of SDGs Addressed by Core General Education Courses



SDGs Covered by Extended Courses



Examples of General Education Courses Integrating the SDGs

Introduction to Environmental Science

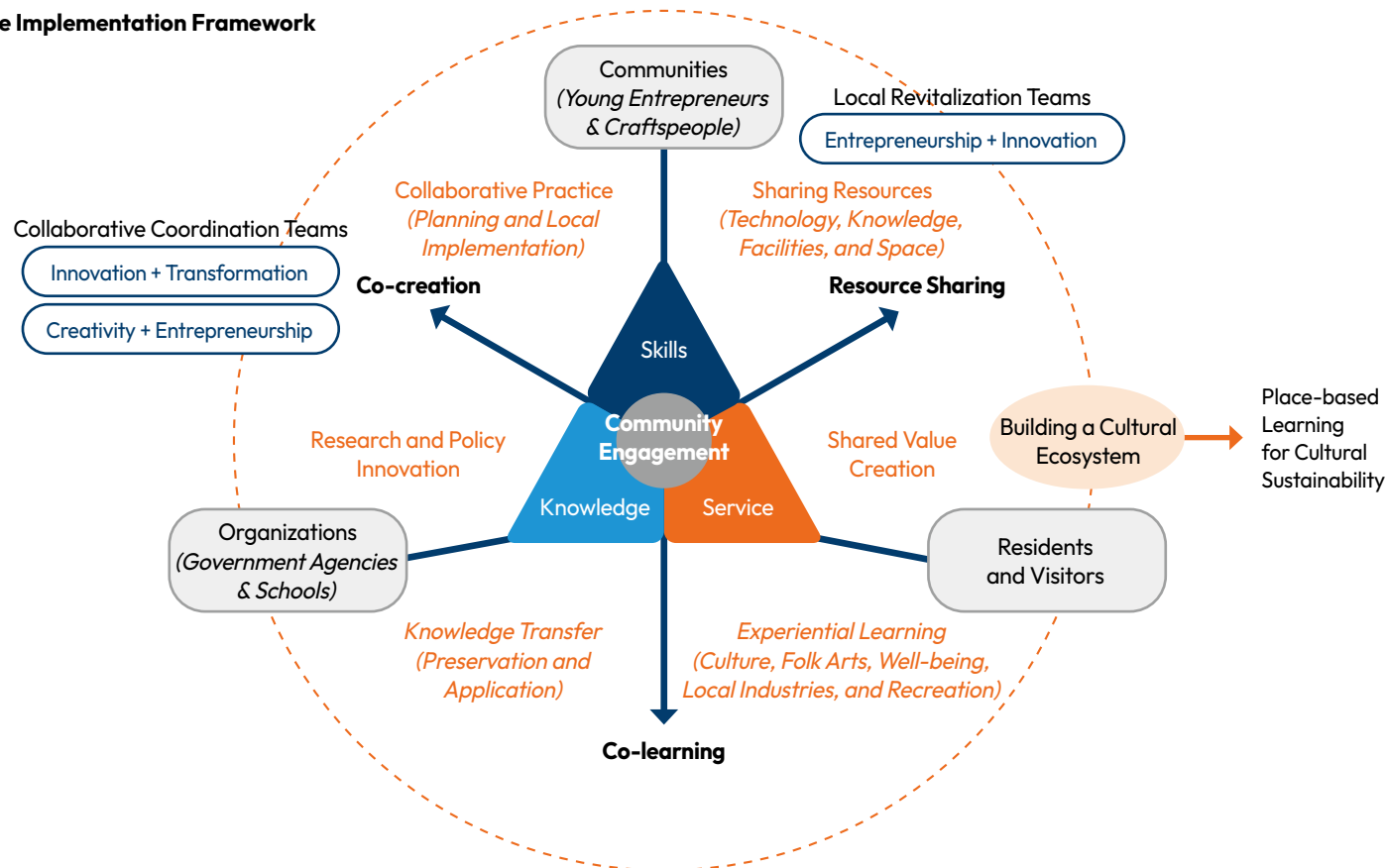
This course provides students with a broad understanding of environmental science through topics including air quality, climate change, energy, water resources, and waste management. Following the integration of the SDGs, the curriculum extends beyond environmental issues to emphasize their inter-connections with social and economic dimensions of sustainability. Using documentary films, current sustainability issues, and case studies from Taiwan and around the world, students are encouraged to examine the relationships among environmental, social, and economic systems. Through experiential learning and hands-on activities, the course adopts a learning-by-doing approach that enables students to recognize the importance of individual and collective actions in achieving the Sustainable Development Goals.

The course also adopts environmental justice as a cross-disciplinary theme and collaborates with the General Education courses Introduction to Philosophy and Introduction to Law, providing interdisciplinary learning opportunities that explore the environmental dimensions of justice and sustainable development.

Cultural Sustainability and Community Engagement

Centered on the concept of cultural sustainability, this course establishes a learning framework based on the three pillars of sustainability—environment, society, and economy—through community-based learning and field experiences. Students explore local cultural heritage sites and community contexts, examining the historical development of Yunlin's sugar industry, military dependents' villages, and immigrant communities. These learning experiences enable students to understand how cultural heritage contributes to sustainable community development while developing the ability to interpret and communicate local knowledge from a sustainability perspective. Through field investigations, community engagement, and project-based learning, students apply classroom knowledge to real-world contexts and strengthen their commitment to local communities and cultural preservation.

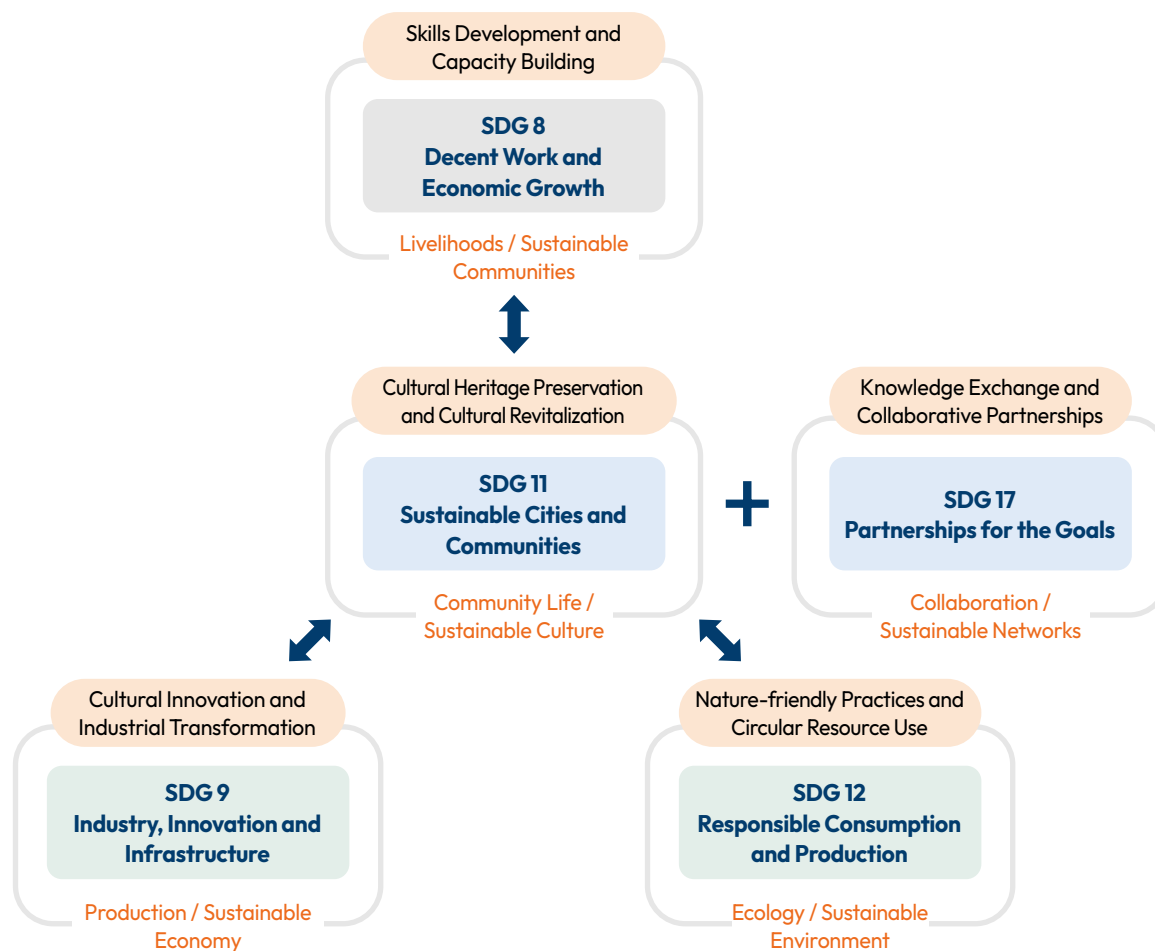
Course Implementation Framework



Cultural Sustainability and Community Engagement

Alignment of the Course with the Sustainable Development Goals (SDGs)

“Interdisciplinary Practice for Cultural Sustainability”



Videos Showcasing SDG-Integrated General Education Courses

Course Title	Teacher
Introduction to Environmental Science	 Instructor: Yu-Lung Chao
Cultural Sustainability and Community Engagement	 Instructor: Shih-Che Huang



Note: Two representative courses are presented here to illustrate the integration of the Sustainable Development Goals (SDGs) into the general education curriculum. For a complete list of SDG-integrated courses, please refer to *SDGsology: General Education Newsletter*.

SDGs Faculty Learning Community

To strengthen faculty capacity for integrating the Sustainable Development Goals (SDGs) into teaching, NFU established an SDGs Faculty Learning Community comprising instructors who teach general education courses. The community serves as a collaborative platform for professional learning, knowledge exchange, and the continuous enhancement of teaching quality. The learning community adopts a variety of professional development activities, including study visits, guest lectures, reading groups, seminars, workshops, field-based learning experiences, and teaching practice sharing. These activities provide opportunities for faculty members to exchange teaching experiences, explore innovative pedagogical approaches, and strengthen interdisciplinary collaboration. In addition, the community facilitates discussions on the planning and implementation of collaborative courses, enabling faculty members to jointly develop SDG-integrated curricula and share effective instructional strategies. Through this continuous professional development mechanism, the University promotes the systematic integration of sustainability concepts across the general education curriculum while fostering a culture of collaboration and teaching excellence.

General Education Expo

On December 18, 2025, the 10th General Education Expo was held in collaboration with the Yunlin County Government and the Office of Sustainability and Social Responsibility at National Formosa University. This year's event was expanded into the "University for Sustainable Action: Green-Collar Talent × Sustainability Practices × Liberal Arts and General Education Joint Expo & ECOCO Smart Circular Economy System Launch Ceremony," under the theme "Good Times." A total of nine faculty members representing 16 liberal arts courses participated in the exhibition, covering a wide range of fields, including law, philosophy, technology, humanities, arts, literature, and sustainable development. Through diverse and interactive exhibition booths, students and faculty were able to experience the interdisciplinary and engaging nature of general education courses. A special "Mental Recharge Station" was also featured at the event, offering card-based self-exploration activities and essential oil experiences to promote awareness of mental health and well-being on campus.

Highlights from the 10th General Education Expo → [Click here](#)



Highlights Video



Event Highlights



Faculty members and students from multiple universities participated in the *Unlocking the Future: Inter-University Innovation Workshop* held at National Central University, where speakers shared insights on AI and the institutional development of interdisciplinary programs. (March 20, 2025)



On October 5, 2025, the Center organized an Education for Sustainable Development (ESD) Teaching Enhancement Workshop for General Education Courses. Professor Pei-Yi Chou from the Institute of Education at National Sun Yat-sen University and Associate Professor Ying-Hung Chen from the Department of Education and Learning Technology at Chinese Culture University were invited to share insights on "Fundamental Concepts of ESD Teaching" and "Integrating ESD with University Social Responsibility (USR)," respectively.



▲ 10th General Education Expo



▲ 10th General Education Expo—Yunlin County Magistrate Chang Li-shan in Attendance

▼ During the Expo, the University's first student to complete the Sustainable Development Literacy Program, from the Department of Electro-Optical Engineering, was recognized and presented with a certificate of completion.



Language Education

The Language Teaching Center offers a wide range of foreign language courses to enhance students' multilingual competencies. In addition, the Center fosters a supportive language-learning environment by introducing the CWT Chinese Proficiency Certification System, organizing literary award competitions, offering local language enrichment courses, and providing incentives for obtaining foreign language proficiency certifications. Through these initiatives, NFU continuously strengthens students' language proficiency, equipping them with the communication skills needed to excel in diverse academic and professional settings.

Language Teaching Programs and Activities in 2025

Program / Activity	Outcomes
CWT Chinese Proficiency Certification System	A total of 1,900 students participated in the annual pre- and post-assessment. Following the assessment, 1,522 students achieved the Advanced proficiency level.
Huwei River Literary Awards	The 19th Huwei River Literary Awards were held in 2025. The competition was open exclusively to NFU students and received 169 submissions.
Local Language Education	A compulsory Local Languages course was offered for first-year five-year junior college students, covering Taiwanese Hokkien, Hakka, and Indigenous languages. Distinguished guest speakers included Hung-En Wang, the first Golden Melody Award recipient recognized for Indigenous-language songwriting, and Ming-You Hsieh, a renowned Taiwanese-language poet and singer dedicated to promoting mother-tongue literature and music.
Foreign Language Learning Center	The Center offered 39 foreign language courses, including English, Italian, Russian, Japanese, Spanish, and French, serving 1,329 student attendances. In addition, four international master's and doctoral students provided academic English consultation, assisting with the revision of 106 thesis abstracts and introductions.
Professional Vocabulary Quotient Credential (PVQC)	Two PVQC Professional English Vocabulary Certification examinations were conducted, with 72 students earning certification.
International Language Exchange Gatherings	Small-group English conversation sessions paired four domestic students with one international student facilitator for cultural exchange and themed discussions. A total of 162 sessions were held, attracting 572 attendances.
Bilingual Teaching Mentorship Program	The University implemented a bilingual teaching mentorship program to strengthen faculty members' bilingual teaching competencies. Courses such as Python Programming were supported, benefiting 116 students.
Strengthening Students' English Proficiency	A total of 86 bilingual courses were offered, with 1,910 student attendances.
Enhancing Faculty EMI Competencies	Faculty members completed online English as a Medium of Instruction (EMI) professional development courses offered by Cambridge, Oxford, and Studio Classroom. Eighty-six faculty members obtained completion certificates.
English Presentation Support for Capstone Projects	To encourage students to present their capstone projects in English, the University launched a funding initiative involving 50 project proposals from six departments, with grants of up to NT\$50,000 per project.
EMI Faculty Development Workshops	Three professional development workshops on EMI course design and teaching practices were organized to enhance faculty members' ability to deliver English-medium instruction and develop bilingual teaching materials, attracting 85 attendances.

Language Courses Offered in 2025

Language Category	Courses Offered	Student Attendances
English Courses	253	13,915
Japanese Courses	12	250
Russian Courses	4	114
Chinese Language Courses	7	149

Photos of Course Outcomes



4-3 Research Excellence and Impact

SDGs | 4, 9

SDG Targets | 4.4, 9.b

Since its establishment, National Formosa University (NFU) has developed distinctive strengths in mechanical and electromechanical engineering, cultivating generations of highly skilled technical professionals who have contributed to Taiwan's industrial development. To strengthen its research ecosystem, the Office of Research and Development (ORD) and the Office of Industry-Academia Collaboration and Services (OIACS) work collaboratively to integrate academic excellence with industry engagement. The Office of Research and Development is responsible for formulating research policies, promoting academic research, and overseeing research administration, while the Office of Industry-Academia Collaboration and Services focuses on industry engagement by connecting the University's research capabilities with regional industries, research institutions, and external partners to secure collaborative projects and external funding. In response to the transformation of the manufacturing sector, NFU established the Research Center for Intelligent Machinery and Smart Manufacturing as a first-level administrative unit to advance smart manufacturing technologies and industrial innovation. Through the combined efforts of the ORD, OIACS, and the Research Center for Intelligent Machinery and Smart Manufacturing, NFU continues to strengthen its research capacity while promoting academic excellence, industry-academia collaboration, technology transfer, and startup incubation.

To realize its vision of achieving international recognition in key research areas and driving regional industrial development, NFU has established the following strategic objectives and implementation strategies.

1. Enhance international research excellence in the University's key disciplines. Strategies:

- (1) Identify and develop priority research areas that highlight the University's distinctive strengths.
- (2) Strengthen faculty research capacity and encourage the international dissemination of research outcomes.
- (3) Expand international collaborations through partnerships and academic exchanges with sister universities.

2. Promote research projects and industry-academia collaboration. Goal: Achieve an annual 10% increase in externally funded research and industry collaboration projects. Strategies:

- (1) Strengthen distinctive research fields and innovative industry-academia collaboration models.
- (2) Foster interdisciplinary and integrated research teams.
- (3) Recruit outstanding academic and research talent.
- (4) Secure competitive grants from the Ministry of Education to enhance teaching and research facilities.
- (5) Expand collaborative networks with industry, government, and research organizations.

3. Strengthen research management and regional innovation. Strategies:

- (1) Integrate and coordinate research, incubation, and innovation support units.
- (2) Establish dedicated mechanisms for research outcome management.
- (3) Strengthen intellectual property (IP) management and expand related resources.
- (4) Enhance the performance of the Innovation and Incubation Center.
- (5) Actively participate in the development of the Central Taiwan Science Park.
- (6) Strengthen students' professional competencies and employability.

4. Expand international engagement for faculty and students. Strategies:

- (1) Increase international student recruitment and establish NFU as a regional hub for international cultural exchange.
- (2) Develop institutional mechanisms that encourage broader participation in international academic collaboration and exchange programs by faculty members and students.

Faculty Research Contributions to the SDGs

Number of Faculty Publications Aligned with the SDGs in 2025

NFU encourages faculty members to align their academic research with the United Nations Sustainable Development Goals (SDGs) by addressing key sustainability challenges through scholarly activities. To highlight these contributions, SDG alignment has been incorporated into the University's faculty academic portfolio system, enabling research outputs—including journal articles, conference papers, and academic books—to be categorized according to the SDGs they support. This approach demonstrates the University's commitment to advancing sustainable development through research while enhancing the visibility and societal impact of its scholarly achievements.

Faculty Publications Aligned with the SDGs in 2025

SDG	Journal Articles	Conference Papers	Books, Book Chapters, and Other Publications	Total
SDG1	13	13	1	27
SDG2	12	13	0	25
SDG3	56	98	1	155
SDG4	153	312	15	480
SDG5	3	5	2	10
SDG6	19	14	0	33
SDG7	45	68	1	114
SDG8	47	103	6	156
SDG9	169	277	6	452

SDG	Journal Articles	Conference Papers	Books, Book Chapters, and Other Publications	Total
SDG10	8	9	1	18
SDG11	40	60	3	103
SDG12	26	43	0	69
SDG13	6	22	1	29
SDG14	2	1	0	3
SDG15	3	6	1	10
SDG16	8	6	1	15
SDG17	0	16	1	17

Graduate Theses and Dissertations

In the 2024–2025 academic year (Academic Year 113), NFU produced 525 master's theses and doctoral dissertations across its four colleges, representing a 19.0% increase compared with the previous academic year. This growth reflects the University's continued commitment to research-based education and graduate academic excellence.

Academic Year	Total Number of Master's Theses and Doctoral Dissertations (by College)								University Total	
	College of Engineering		College of Humanities and Applied Sciences		College of Electrical Engineering and Computer Science		College of Management		Total	Growth (%)
	Number	Growth (%)	Number	Growth (%)	Number	Growth (%)	Number	Growth (%)		
109	159	0.6	38	2.7	133	6.4	84	-11.5	414	-0.2
110	136	-14.4	34	-10.5	94	-29.3	78	-7.1	342	-17.3
111	188	38.2	43	26.4	160	70.2	73	-6.4	464	35.6
112	172	-8.5	40	-6.9	138	-13.7	91	24.6	441	-4.9
113	199	15.6	49	22.5	170	23.1	107	17.5	525	19

• Note: Growth rate = (Current Academic Year – Previous Academic Year) ÷ Previous Academic Year × 100%.

Research Center for Intelligent Machinery and Smart Manufacturing

Located at the heart of Taiwan's precision machinery industry cluster, National Formosa University (NFU) is strategically positioned near major government-supported industrial parks, including the Central Taiwan Innovation Park, Taichung Precision Machinery Innovation Park, Dapumei Precision Machinery Park, Changbin Industrial Park, and the Taichung, Houli, and Huwei campuses of the Central Taiwan Science Park. Leveraging this geographical advantage, NFU has long integrated interdisciplinary research expertise to advance precision machinery technologies and strengthen industry-academia collaboration. Supported by the Ministry of Education's Higher Education Sprout Project – Featured Areas Research Center Program, NFU established the Research Center for Intelligent Machinery and Smart Manufacturing (RCIMSM) as a first-level administrative unit. Building upon the University's long-standing strengths in precision machinery, the Center has gradually evolved into an internationally oriented research hub dedicated to intelligent manufacturing technologies.

In response to global manufacturing trends, the Center has implemented a comprehensive strategy focusing on the development of advanced manufacturing technologies, the establishment of collaborative industry-academia-research platforms, the construction of domestic demonstration production lines and talent development bases, and the recruitment of internationally renowned industry experts as senior advisors. These initiatives support Taiwanese machine tool manufacturers in developing next-generation intelligent multi-axis machine tools while accelerating industrial transformation. Between 2018 and 2025, the Center provided technical support, technology transfer, or commissioned research services to more than 85 companies. It has also collaborated with leading research organizations, including the Industrial Technology Research Institute (ITRI), the Precision Machinery Research & Development Center (PMC), and the Institute for Information Industry (III). International research and talent development partnerships have been established with universities and industrial organizations in Japan, Germany, the United Kingdom, and the United States, including Tokyo University of Agriculture and Technology, Hiroshima University, Sophia University, Fraunhofer IPT, RWTH Aachen University, The University of Manchester, Brunel University London, The University of Texas at San Antonio, Mazak, Makino, Okuma, DMG MORI, Mitsubishi, and Siemens. These achievements contributed to NFU receiving the 2021 National Industrial Innovation Award (Outstanding Innovative Academic Research Institution).

2025 Highlights:

1. Industry-Academia Collaboration: Completed 58 collaborative research projects in intelligent machinery and smart manufacturing, securing approximately NT\$77.43 million in external funding, together with 15 technology transfer agreements valued at approximately NT\$8.06 million.
2. Research and Intellectual Property: Obtained 13 newly granted patents, including 11 invention patents and 2 utility model patents.
3. While producing 31 international journal articles and 50 international conference papers.
4. Industry Support and Outreach: Assisted 39 companies in applying for or implementing government-funded projects with total approved funding of approximately NT\$876.22 million, and organized outreach and STEM education activities reaching 130 participants.
5. Technology Innovation: Developed five competitive technologies and products, including intelligent multi-axis machine calibration technology, the Smart Machine Engine (SME) platform, IoT technologies for machine tools, machine tool traceability systems, and collision prevention systems. These technologies have been transferred to or adopted by more than 85 companies and research organizations.
6. Startup Development: Successfully incubated three startup companies, all of which remain in operation.
7. Talent Development: Through senior expert recruitment, industry-academia collaboration platforms, industrial academy programs, student and professional training courses, domestic and international internships, and research incentive programs, the Center provided training for more than 450 participants.
8. Smart Manufacturing Infrastructure: Continued upgrading three intelligent demonstration production lines, expanded facilities at the High-Speed Rail Campus, and introduced Digital Twin (DT) technologies to improve cloud-enabled manufacturing services, blockchain-based production traceability, and smart production management. Two production lines were further upgraded to support the growing drone manufacturing industry.
9. Green Manufacturing: Assisted companies in implementing ISO 14955-3 machine tool energy consumption testing and verification. The Center is establishing a TAF-accredited ISO 14955-3 laboratory and developing AI-based energy consumption prediction models to support low-carbon manufacturing.

10. Awards and Recognition: The Center received multiple prestigious awards in 2025, including Gold Awards at the Yu-Hsiu Cup Digital Applications Competition, the Taiwan Digital Innovation Awards, and an International Invention Competition, as well as a Bronze Award at the 2025 Taiwan Innotech Expo.
11. Industrial Service Certification: Accredited by the Industrial Development Administration, Ministry of Economic Affairs, as both an AU-3 Automation Service Organization and an SD-6 Sustainable Development Service Organization, enabling the Center to provide professional services in automation system development, intelligent monitoring, online inspection, and low-carbon metal processing technologies. In 2025, the Center collaborated with more than 85 industrial partners, generating 15 commercialized technologies, high-value products, and innovative business models.

12. International Collaboration: Through industrial advisory networks, the Center facilitated technical exchanges with IHI Corporation (Japan), leading Taiwanese manufacturing companies on overseas technical visits and promoting trilateral international industry-academia collaboration projects between Taiwan and Japan.
13. ESG and Carbon Reduction: In alignment with national ESG and net-zero transition policies, the Center actively promoted carbon inventory consulting and verification services. During 2025, it assisted 10 companies in conducting greenhouse gas inventories and obtaining third-party verification, supporting Taiwan's transition toward sustainable and low-carbon manufacturing.

Photos of Achievements



Research Center for Aviation Maintenance Training

To support Taiwan's national aviation policy and address the growing demand for qualified aircraft maintenance personnel, National Formosa University (NFU) established the Aviation Maintenance Training Center in accordance with the Civil Aviation Administration (CAA) Regulations Governing the Establishment of Civil Aviation Personnel Training Organizations (05-02A). The Center is the first national university in Taiwan to be accredited under the revised CAA regulatory framework as a Part B1 Basic Training Organization, providing certified foundational training for aircraft maintenance engineers. Concurrently, NFU established the Bachelor's Program in Aviation Maintenance to cultivate highly skilled aviation maintenance professionals.

A distinctive feature of the program is its "Degree + Professional Certification" model, which enables students to earn both a bachelor's degree and the Aircraft Maintenance Engineer CAT B1.1 License, significantly enhancing their professional qualifications and career competitiveness.

Building upon the College of Engineering's established strengths in aircraft engineering education and facilities, the Center is committed to becoming a leading aviation maintenance training hub in the Asia-Pacific region. It continues to expand diversified training programs, pursue international accreditation, align with global aviation maintenance standards, and promote collaboration among civil aviation professionals, industries, and training institutions. Through these efforts, the Center aims to become a premier institution for cultivating aircraft maintenance professionals across Taiwan, the Chinese-speaking region, and Southeast Asia.

On June 27, 2025, the Center held the 6th Aircraft Maintenance Engineer CAT B1.1 Certification Program Graduation Ceremony, attended by representatives from leading aviation companies, including China Airlines, STARLUX Airlines, EVA Air Maintenance, United Airlines, Flightlink Aviation, and Ever Engine Maintenance, highlighting the Center's strong partnerships with the aviation industry.

(News <https://news.ltn.com.tw/news/life/breakingnews/5092844>)

Aircraft Maintenance Training and Professional Certification Outcomes

Academic Year	Students Enrolled in Aviation Maintenance Training	Students Obtaining Aircraft Maintenance Engineer Certification
110	24	22
111	26	23
112	25	23
113	24	Currently Enrolled

• Note: Academic year refers to the year of student enrollment. Students normally complete the program and professional certification requirements two years after enrollment. Therefore, certification outcomes for Academic Year 113 are still in progress.

Key Highlights

- ✦ The only national university in Taiwan specializing in aircraft maintenance practical training.
- ✦ The only higher education institution to independently complete the certification process and obtain approval to establish a CAA-accredited aviation maintenance training organization.
- ✦ The first national university authorized by the Civil Aviation Administration to operate a CAT B1 Basic Training Organization.
- ✦ Offers a Bachelor's Program in Aviation Maintenance integrating academic education with professional certification, achieving a CAT B1.1 certification pass rate of over 90% and a 100% graduate employment rate.

Photos of Achievements



▲ Group photo from the 6th Aircraft Maintenance Engineer CAT B1.1 Certification Program Graduation Ceremony



▲ Students conducting aircraft wiring diagram inspection.



▲ Faculty and students at the Aviation Maintenance Training Center.



▲ Students performing aircraft engine inspection.

Agricultural Research and Extension Center

Located in one of Taiwan's major agricultural production regions, National Formosa University (NFU) established the Agricultural Research and Extension Center in accordance with the Regulations Governing Cooperation in Agricultural Research, Education, and Extension of the Ministry of Agriculture. The Center integrates the resources of government, academia, research institutions, and industry to strengthen agricultural innovation, promote rural revitalization, and enhance the competitiveness of local agriculture. It collaborates closely with agricultural research institutes and universities to develop extension materials, provide professional training, conduct demonstration projects, and address challenges related to agricultural management and rural development. Key Initiatives:

1. **Huwei River Community University:** Established in 2001, the Huwei River Community University is guided by three core missions: empowering rural communities, preserving and revitalizing local culture, and fostering social innovation. Through community planning and diverse lifelong learning programs, the University enhances civic literacy, public participation, local identity, and community revitalization. The program currently offers approximately 75 courses each semester, attracting more than 1,400 participant attendances per semester.
2. **Farmers' University:** Since its establishment in 2010, the Farmers' University has trained nearly 2,000 agricultural managers, promoting lifelong learning and knowledge exchange among farmers. The curriculum integrates smart agriculture, digital technologies, precision farming, and environmental sustainability, enhancing agricultural competitiveness while encouraging environmentally responsible farming practices and innovative farm management. The program has also facilitated the establishment of the Taiwan Agricultural Managers Association and the Yunlin Fine Agriculture Production Cooperative, strengthening farmer networks and collaborative agricultural development.
3. **Agricultural Product Commercialization:** The Center supports farmers in transforming agricultural products into market-ready value-added products through integrated technical guidance and market-oriented product development. By promoting sixth industrialization, locally produced crops such as black soybeans and black peanuts have been successfully developed into premium products, including organic black soybean milk and seasoned black peanuts. One representative product has been successfully introduced into FamilyMart convenience stores, expanding market access, strengthening local agricultural branding, and increasing farmers' income.
4. **Industry-Academia Collaboration for Sustainable Agriculture:** The Center promotes the development of sustainable and organic agriculture through comprehensive industry-academia collaboration. Its services include organic crop production systems, seed production technologies, cold-chain quality management, soybean processing technologies, and supply chain integration. These initiatives have helped establish a complete production ecosystem for Taiwan's organic grain industry while supporting the formation of farmer cooperatives managing the Maguang Organic Farming Cluster, contributing to the long-term development of sustainable agriculture.

5. **Research Projects and Community Engagement:** The Center actively implements a wide range of government-funded and industry collaboration projects, including: Farmers' University, Huwei River Community University, University Social Responsibility (USR) Projects, Industry-Academia Talent Development Platform, Participatory Guarantee Systems (PGS) for Organic Agriculture, Organic and Environmentally Friendly Farming Promotion, Yunlin Granary Program – Maguang Organic Farming Cluster, Agribusiness Transformation and Upgrading, Industry-Academia Collaborative Research Projects. Through these initiatives, the Center promotes agricultural innovation, sustainable food systems, community development, and talent cultivation while supporting the long-term resilience and competitiveness of Taiwan's agricultural sector.



Yunlin Farmers' University

1. Since its establishment in 2010, the Yunlin Farmers' University has trained **2,366** agricultural managers. In 2025, the program enrolled **217** participants.
2. The program has also facilitated the establishment of farmer-led organizations, including:
 - (1) Yunlin Fine Agriculture Production Cooperative
 - (2) Yunlin Agricultural Managers Association
 - (3) Taiwan Agricultural Managers Association



Yunlin Huwei River Community University

As a community university with a strong rural development focus, the program provides lifelong learning opportunities in agriculture and sustainable community development.

1. In 2025, a total of **324** instructional hours of agriculture-related courses were delivered. In addition to agricultural production techniques, the program prepared learners for professional certifications in horticulture and landscape design through courses such as:
 - (1) Introduction to Horticulture and Landscape Design
 - (2) Advanced Landscape Construction and Horticulture (Level B Technician – Written Examination)
 - (3) Advanced Landscape Construction and Horticulture (Level B Technician – Practical Examination)
2. Collaborated with the Fifth River Management Branch, Water Resources Agency, to support the Huwei River waterfront environmental improvement project.

Yunlin Granary Program – Maguang Organic Farming Cluster

1. Established a large-scale agricultural machinery operation team while providing students with hands-on machinery operation training.
2. Assisted **32** farmers in joining the organic farming cluster.
3. Completed the ecological restoration of a **16**-hectare ecological retention pond, enhancing water resource management and agricultural sustainability.

Extension and Outreach Achievements

1. First Prize, Teaching Innovation Category, 2025 IASE Education Impact Awards
2. Bronze Award, Sustainability Film Category, 2025 Taipei Golden Eagle Microfilm Festival



Photos of Achievements

▼ Participants attending the Yunlin Farmers' University training program.



▼ Ecological education course promoting environmental sustainability.



▲ Agriculture-related training courses delivered by the Agricultural Research and Extension Center.



▲ Participants engaging in hands-on agricultural field experience activities.

- First Prize, Teaching Innovation Category, 2025 IASE Education Impact Awards.
- Bronze Award, Sustainability Film Category, 2025 Taipei Golden Eagle Microfilm Festival.



4-4 Industry–Academia Collaboration and Technology Applications

SDGs | 2, 4, 7, 8, 9, 15, 17

SDG Targets | 2.3, 2.4, 4.4, 7.a, 8.3, 9.5, 9.b, 15.3, 17.17

Industry–Academia Collaboration, Research Innovation, and Sustainable Talent Development

National Formosa University (NFU) is committed to the practice-oriented philosophy of technological and vocational education, with industry–academia collaboration, research innovation, and talent development serving as key drivers of sustainable development. In 2025, the University strengthened partnerships with industry, expanded smart manufacturing teaching and research facilities, promoted the application and commercialization of research outcomes, and enhanced students' practical training and participation in innovation competitions. These efforts contributed to regional industrial upgrading, workforce development, and social sustainability while reinforcing the alignment between higher technological education and industry needs.

1. Industry–Academia Partnership and Collaboration Mechanisms

To enhance the effectiveness of industry engagement, NFU continued to operate the Digital Industry–Academia Collaboration (DIAC) Platform, which supports student internships and employment matching, faculty technology showcases, collaborative research opportunities, and industry demand matching. The platform strengthens connections between the University's research capabilities and industrial needs. The University also integrates short-term technical consulting services with interdisciplinary expert teams, providing a comprehensive collaboration framework that spans industry needs assessment, technical diagnosis, workforce training, and project implementation.

2. Supporting Regional Industrial Development

In 2025, NFU continued to support enterprises located in the Taichung Industrial Park and Douliu Industrial Park, achieving the following outcomes: Conducted 116 industry consultation visits. Provided 20 short-term technical consulting projects. Delivered 15 professional training programs totaling 45 instructional hours. Supported 365 student internships. Facilitated 17 government-funded or industry-sponsored collaborative projects. Matched 7 industry recruitment opportunities. Completed 2 industry-sponsored student capstone projects involving 4 students. Organized 1 industry internship observation program. Assisted 2 companies in utilizing government workforce development initiatives. Delivered 3 in-depth technical consulting projects. Organized 1 industrial site visit and knowledge exchange activity. Assisted 1 company in applying for a government-funded R&D project. These achievements demonstrate NFU's systematic capability to integrate government resources, industry expertise, and academic innovation in support of industrial transformation and regional economic development. In recognition of these long-term contributions, NFU received the Outstanding Collaborative Performance Team Award and the Outstanding Industry Partnership Award from the Industrial Parks Administration, Ministry of Economic Affairs, acknowledging the University's excellence in industry engagement, technology services, and regional innovation.

3. Research Commercialization, Intellectual Property, and Technology Transfer

The Office of Industry–Academia Collaboration and Services (OIACS) oversees intellectual property management, technology transfer, and research commercialization at NFU. Through integrated management of patent protection, licensing, technology marketing, and commercialization, the University continues to enhance the societal and industrial impact of its research outcomes. In 2025, NFU was granted 56 patents, representing an increase of approximately 30.2% compared with two years earlier. The University also completed 28 technology transfer agreements involving 11 academic departments and research units, demonstrating strong interdisciplinary collaboration and successful commercialization of research. Technology transfer projects have expanded beyond traditional engineering applications to include smart manufacturing, digital technologies, low-carbon sustainability, and interdisciplinary innovation. Representative technologies include flight controller systems, unmanned aerial vehicle (UAV) ground station software, low-carbon cycling tourism solutions, and sustainable management technologies for agricultural and pastoral recreational sites. These outcomes illustrate NFU's growing capacity to translate research excellence into practical applications that generate industrial, environmental, and societal value.

4. Smart Manufacturing Teaching and Research Facilities

To address emerging trends in smart manufacturing, automation, and digital transformation, NFU continued to invest in advanced teaching and research infrastructure. In 2025, the University established the Advanced Mechatronics Laboratory, incorporating an XTS Magnetic Levitation Transport System to strengthen education and research in smart automation and mechatronic integration. NFU also partnered with Delta Electronics to establish the Smart Mechatronics Laboratory. The University provided the laboratory facilities, while Delta Electronics contributed advanced industrial equipment, including programmable logic controllers (PLCs), motion control systems, servo drives, machine vision systems, digital twin technologies, and articulated robotic systems. These facilities significantly enhance students' practical competencies and support the cultivation of talent for smart manufacturing industries.

5. Sustainable Talent Development and Student Achievement

NFU adopts an integrated educational model combining coursework, research projects, hands-on practice, and innovation competitions to cultivate interdisciplinary competencies and practical problem-solving skills. In 2025, faculty members and students achieved outstanding results in national and international competitions, including: Second Place Worldwide at the 2025 Future Energy Challenge. Five medals at the 2025 Taiwan Innotech Expo. Innovation Award at the 2025 Asia Golden Selection Awards for the project Automatic Cell Viability Analysis. These achievements demonstrate the University's strong capabilities in energy technologies, intelligent systems, engineering applications, and artificial intelligence integration, while highlighting the effectiveness of its talent development strategy.

6. Annual Summary

Through sustained investment in industry-academia collaboration, technical services, research commercialization, smart manufacturing infrastructure, and talent development, NFU continues to strengthen its educational, research, and societal impact. By integrating industrial consulting, collaborative research, technology transfer, corporate-sponsored laboratories, and student innovation achievements, the University has established a sustainable development model that effectively connects teaching, research, and community engagement. These initiatives further enhance NFU's contribution to industrial upgrading, regional development, and the achievement of sustainable development goals.

Industry-Academia Collaboration Projects (2021–2025)

Source		NSTC Industry-Academia Projects		MOE Industry-Academia Projects		Enterprise-sponsored Collaborative Projects	
		Number	Funding (NT\$10,000)	Number	Funding (NT\$10,000)	Number	Funding (NT\$10,000)
Year	2021	410	3,288	1	180	183	7,733
	2022	37	2,526	1	200	246	12,355
	2023	27	2,617	1	360	248	9,933
	2024	14	1,282	1	330	245	11,243
	2025	19	2,008	2	103	225	9,385

Business Incubation Performance (2021–2025)

Year	Enterprises Supported	Startup Companies Incubated
2021	45	24
2022	56	32
2023	53	30
2024	43	20
2025	37	15

Patents Granted (2021–2025)

Year	Patents Granted
2021	53
2022	63
2023	47
2024	43
2025	56

Technology Transfer Performance (2021–2025)

Year	Technology Transfer	
	Agreements	Contract Value (NT\$)
2021	24	10,861,000
2022	4	9,301,040
2023	32	13,847,250
2024	31	17,829,500
2025	28	12,973,500

Unmanned Aerial Vehicle (UAV) Research, Innovation, and Talent Development

In 2025, National Formosa University (NFU) continued to advance the UAV Industry Talent and Technology Development Program, integrating artificial intelligence (AI), smart manufacturing, and interdisciplinary applications to establish a leading center for UAV research, innovation, and talent cultivation in Taiwan. NFU established a presence at the Asia UAV AI Innovation Application R&D Center in Chiayi, where it collaborates closely with UAV manufacturers and industry partners. Through interdisciplinary AI curricula, hands-on laboratory training, and real-world field validation, the University equips students with industry-ready competencies while strengthening industry-academia collaboration. To support research and technology development, NFU has also established advanced research infrastructure, including a high-performance wind tunnel laboratory and dedicated UAV flight testing facilities. These facilities provide comprehensive support for UAV design, development, testing, and verification, enhancing the University's research capabilities and technical services for industry.

AI-Enabled UAV Talent Development: NFU actively promotes its Interdisciplinary AI Program for Unmanned Aerial Vehicles, which integrates AI technologies with UAV engineering and practical applications. By the 2025 academic year, approximately 200 students had enrolled in the program, with around 50 students completing the curriculum annually, providing a continuous pipeline of highly skilled professionals for Taiwan's emerging UAV industry. In 2025, under the Ministry of Economic Affairs' AI Talent Development Program, NFU launched Taiwan's first AI-Enabled UAV Credit Program. The program recruited 40 participants, all of whom successfully completed the training and transitioned into industry internships, demonstrating outstanding talent development outcomes. The curriculum emphasizes the integration of AI and UAV technologies, focusing on system integration, field deployment, intelligent applications, and hands-on operation to cultivate professionals capable of meeting rapidly evolving industry demands.

National Recognition for UAV Education and Research: In early 2026, representatives from the U.S. State University of New York (SUNY) System Administration (SOA) visited the Asia UAV AI Innovation Application R&D Center as part of an official delegation organized by Taiwan's Ministry of Education. The visit was led by the Minister of Education and attended by representatives from relevant government agencies. The delegation reviewed NFU's achievements in UAV talent cultivation, AI research, and integrated field-based innovation. The visit highlighted the University's growing role as a key contributor to Taiwan's national UAV ecosystem and demonstrated strong government recognition of NFU's leadership in advanced UAV education and research.

International Collaboration and Diverse UAV Applications: NFU actively promotes international collaboration and interdisciplinary applications of UAV technologies. In 2025, the University organized the Symposium on Key Technologies and Field Validation for Diverse UAV Applications, bringing together representatives from academia, industry, government, and research institutions to exchange knowledge and promote innovation in intelligent UAV applications. NFU also participated in the Ministry of Foreign Affairs' Glory Allies Project, offering an Agricultural UAV Technical Training Program for participants from Taiwan's diplomatic partner countries. The program introduced smart agriculture technologies and UAV operation skills while strengthening international cooperation in technical education, technology transfer, and sustainable agricultural development.

Key Highlights

✦ 2025 Taiwan Flying Robot Innovation Competition

Since 2023, NFU has organized the annual Taiwan Flying Robot Innovation Competition to inspire students and the public to develop capabilities in the design, fabrication, and operation of flying robots. The competition promotes innovation, hands-on learning, and talent development in emerging aerospace technologies.

✦ 2025 Taiwan UAV Creative Design Competition

Hosted by the Aeronautical and Astronautical Society of the Republic of China and organized by NFU's Department of Aviation Engineering, the competition was held at the Asia UAV AI Innovation Application R&D Center on October 18, 2025.

A total of 23 teams from across Taiwan participated, competing in aircraft design, manufacturing quality, flight performance, innovation, and mission execution. The event showcased students' interdisciplinary collaboration, engineering design, and practical problem-solving capabilities.

✦ Ministry of Foreign Affairs – Glory Allies Project: International Technical Training Program

In support of the Glory Allies Project, NFU provided technical training for participants from Taiwan's diplomatic partner countries. The curriculum covered UAV operation, crop pest and disease monitoring, precision spraying and irrigation, and agricultural data analysis, promoting smart agriculture while improving productivity and reducing labor requirements.

✦ Ministry of Economic Affairs AI Talent Development Program: Taiwan's First AI-Enabled UAV Credit Program

In August 2025, NFU launched Taiwan's first AI-Enabled UAV Credit Program under the Ministry of Economic Affairs' AI Talent Development Program. The curriculum was designed according to industry needs and combined AI technologies with UAV applications, system integration, field deployment, and hands-on training. Upon completion, participants were matched with internship opportunities in AI and UAV-related industries, accelerating technology adoption and cultivating industry-ready professionals.

Asia UAV AI Innovation Application R&D Center

Since 2021, National Formosa University (NFU), through its Research Center for Intelligent Machinery and Smart Manufacturing, has been commissioned by the Chiayi County Government to manage and operate the Asia UAV AI Innovation Application R&D Center. The Center integrates education, research, industry collaboration, and technology services to establish a comprehensive platform for UAV innovation and talent development. Centered on UAV system integration technologies, NFU provides education and professional training covering the design, manufacturing, assembly, testing, certification, and mission operation of fixed-wing, rotary-wing, and hybrid vertical take-off and landing (VTOL) UAV systems. These activities are supported by interdisciplinary curricula in aviation engineering, electronic systems, artificial intelligence, and smart manufacturing, enabling students and industry professionals to acquire practical competencies while strengthening industry-academia collaboration, internships, and career pathways. By 2025, the Center had attracted 55 government agencies, research institutions, universities, enterprises, and professional associations to establish partnerships or participate in collaborative activities. The Center has evolved into an integrated innovation platform that combines industrial clustering, technology development, workforce training, application validation, and technical services, accelerating the development of Taiwan's UAV ecosystem.

With support from the Ministry of Education (MOE), NFU was awarded NT\$90 million in 2022 under the UAV Industry Talent and Technology Development Program to establish the University's UAV talent development base at the Asia UAV AI Innovation Application R&D Center. Among the MOE's 20 National Key Industry Talent Development Centers, NFU's facility is the only center located within an industrial park, highlighting the University's strategic role in integrating education, research, industrial collaboration, and field validation for Taiwan's UAV industry. Building upon its existing research capabilities and the establishment of the Advanced UAV Manufacturing and Inspection Laboratory, NFU secured an additional NT\$25 million in 2025 through the MOE's Phase II AI Empowerment Program. The funding supports the deployment of advanced AI computing infrastructure, intelligent simulation technologies, and system verification equipment, significantly enhancing the University's capabilities in UAV research, testing, validation, and advanced talent development. Supported by MOE funding and institutional investment, NFU has invested nearly NT\$130 million in developing its UAV Talent Development and Technology Innovation Base. The University has established a comprehensive ecosystem encompassing talent cultivation, research and development, advanced manufacturing, testing and certification, technology commercialization, and industry services, positioning NFU as one of Taiwan's leading universities supporting the advancement of the national UAV industry and the implementation of intelligent UAV applications.

Photos of Course Outcomes

▼ Participants in the International Cooperation and Development Fund (TaiwanCDF) Agricultural UAV Technical Training Program attended practical courses and field demonstrations.



▼ Participants in the Agricultural UAV Technical Training Program visited the Chiayi UAV Innovation Base for practical training and technology demonstrations.



▼ Students and faculty from Nayoro High School, Japan, visited the Asia UAV AI Innovation Application R&D Center as part of an international academic exchange organized by Chiayi Science Park Experimental High School.



▲ Senior executives from the Industrial Technology Research Institute (ITRI) visited the Asia UAV AI Innovation Application R&D Center to exchange insights on UAV technologies and industrial applications.



▲ Delegation from the Taipei City Department of Education visited the Asia UAV AI Innovation Application R&D Center to explore UAV education and talent development initiatives.



▲ Vice President Hsiao Bi-khim visited the Asia UAV AI Innovation Application R&D Center to learn about NFU's achievements in UAV talent development and AI innovation.



▲ Premier Cho Jung-tai visited the Asia UAV AI Innovation Application R&D Center to review the University's contributions to UAV education, research, and industrial collaboration.



▲ Representatives from the Ministry of Education accompanied three advisors from the State University of New York (SUNY) System Administration (SOA) on a visit to the Asia UAV AI Innovation Application R&D Center.

◀ Faculty and students from King Mongkut's Institute of Technology Ladkrabang (KMUTL), Thailand, visited NFU's Aerospace Engineering laboratories and the Asia UAV AI Innovation Application R&D Center.



4-5 Awards and Recognition

SDGs | 3, 4, 8, 9

SDG Targets | 9.b

Major Awards and Recognition in 2025

Award	Achievement
 7th Global Views Magazine University Social Responsibility (USR) Awards	● Grand Prize – <i>Local Co-prosperity Category</i> for the Smart Water Conservation and Carbon Reduction Community Project in Shuijing Village. ● Excellence Award – <i>Talent Co-learning Category</i> for Carbon Bloom: Sustainable Transformation of Yunlin's Floriculture Industry and Green Talent Development. ● Excellence Award for the University's 2024 Sustainability Report.
 Asia-Pacific and Taiwan Sustainability Action Awards	Asia-Pacific Sustainability Action Awards (APAA) ● 1 Gold Award, 2 Silver Awards, and 2 Bronze Awards for projects in energy conservation, UAV emergency applications, wastewater resource recovery, sustainable floriculture, and low-carbon industrial development.
 Taiwan Sustainable University Awards	Taiwan Sustainability Action Awards (TSAA) ● 2 Gold Awards, 1 Silver Award, and 5 Bronze Awards recognizing projects in circular agriculture, smart mushroom cultivation, sugar heritage revitalization, carbon fiber innovation, cultural regeneration, bamboo manufacturing, UAV conservation, and community sustainability.
	Recipient of the Outstanding Sustainable University Award and the Bronze Award for Sustainability Reporting.

Award	Achievement
 2025 IASE Education Impact Awards (Asia)	▶ Excellence Award for the Agricultural Dual Mentorship Program and two finalist recognitions for innovative manufacturing and cultural sustainability initiatives.
 5th Sustainable Living Lab Awards	▶ Two student teams received Merit Awards, with one also receiving the Most Popular Project Award for sustainable agricultural innovation and AI-enabled craftsmanship.
 15th Rural Revitalization Competition for University Students	▶ Student team Tuku Yekagu received the Residency Grant, Community Partnership Award, and Rural Rising Star Award.
 9th Taipei Golden Eagle Microfilm Festival	▶ Three documentaries received Bronze Awards for promoting ecological sustainability, sustainable communities, and USR education.
 National Intercollegiate Athletic Games	▶ Gold Medals in Mixed Doubles Tennis and Men's Hammer Throw.
 2025 International Future Energy Challenge	▶ Student team awarded Second Place for innovative energy technology solutions.
 National IC Design Competition	▶ Outstanding Award and Merit Award in the Graduate Full-Custom IC Design Category.
 Taiwan University Rocket Competition	▶ Second Place awarded to the NFU student rocket team.
 30th InnoServe Innovation Competition	▶ Multiple First Place, Second Place, and Merit Awards in cybersecurity, AI applications, smart manufacturing, UAV technologies, and digital innovation.

Award	Achievement
 7th Green Idea International Invention and Design Competition	 Titanium Award, Silver Medal, and Jury Special Award for innovative inventions.
 20th Himax Cup IC Layout Design Competition	 NFU received the Best Team Award, Best Advisor Award, and multiple Outstanding and Merit Awards.
 25th Macronix Golden Silicon Award	 Bronze Award and Outstanding Awards for intelligent robotics and semiconductor application technologies.
 2025 Asia Golden Selection Awards	 Innovation Award for interdisciplinary research integrating biotechnology and information engineering.

To encourage professional competency development and enhance students' competitiveness, NFU actively supports participation in national and international professional certification examinations and academic competitions. Students who achieve outstanding performance—including top-three placements in national or international competitions, obtaining Level A or Level B National Technician Certificates, or earning other professionally recognized certifications of equivalent standing—are eligible to apply for the University's Student Achievement Awards, which provide both formal recognition and financial incentives. Through this incentive mechanism, NFU encourages students to strengthen their professional expertise, practical skills, and innovation capabilities while promoting excellence in technical education and enhancing graduates' employability and career readiness.

Student Achievement Awards and Competition Results (2021–2025)

Year	Student Achievement Awards (Cases)		Domestic and International Certifications and Competitions				
	Number of Cases	Award Recipients	Gold	Silver	Bronze	Special Awards	Total Awards
2021	217	-	30	25	20	99	174
2022	217	662	34	23	22	108	187
2023	236	807	29	20	27	110	186
2024	247	801	31	43	41	150	265
2025 (114-1)	140	447	21	20	13	45	99

4-6 International Collaboration and Global Partnerships

SDGs | 4, 17

SDG Targets | 4.b, 17.1, 17.9, 17.16

International Collaboration and Global Partnerships

National Formosa University (NFU) is committed to expanding its global academic network through strategic international partnerships that enhance education, research, talent mobility, and innovation. Guided by the University's internationalization strategy and aligned with Taiwan's New Southbound Policy, NFU actively promotes academic exchange, collaborative research, and international talent development while strengthening its global engagement and institutional competitiveness. To foster long-term international collaboration, NFU has established an extensive network of 80 partner universities across Asia, Europe, and North America. Key partnerships include the TALtech Alliance, a consortium of six Taiwanese universities, which has signed a memorandum of understanding with Germany's HAWtech Alliance to promote collaborative education and research. NFU also maintains strategic partnerships with leading universities, including the Indian Institute of Technology Delhi (IIT Delhi), the Indian Institute of Science (IISc), the Indian Institute of Technology Madras (IIT Madras), Chandigarh University, SRM Institute of Science and Technology (SRMIST), Ho Chi Minh City University of Technology, Hanoi University of Science and Technology, University of Kent, Çukurova University, and Gebze Technical University. Beyond these strategic partnerships, NFU collaborates with universities and research institutions in the United States, the United Kingdom, Germany, the Netherlands, the Czech Republic, Canada, Russia, Lithuania, Hungary, Cuba, Vietnam, India, Thailand, and Indonesia, creating opportunities for student exchange, faculty mobility, joint research, and international academic cooperation. To further strengthen its international engagement, NFU regularly participates in major international higher education conferences, including the Asia-Pacific Association for International Education (APAIE) Conference, the NAFSA Annual Conference & Expo, and the European Association for International Education (EAIE) Conference. These platforms enable the University to establish new partnerships, expand collaborative research networks, and enhance its international visibility and academic reputation. Through these sustained international partnerships and exchange activities, NFU continues to broaden global learning opportunities, strengthen research collaboration, and cultivate graduates with international perspectives, contributing to the University's long-term vision of becoming a globally connected institution and advancing SDG 17: Partnerships for the Goals.

International Student Enrollment (Academic Years 111–113)

Academic Year	International Students	Overseas Chinese Students	Mainland Chinese Students	Hong Kong and Macao Students
111	93	26	3	21
112	79	25	0	15
113	111	21	0	9

Highlights of International Collaboration

NFU continued to implement the Taiwan Experience Education Program (TEEP) and launched the Formosa Talent Internship Program (FTIP), integrating short-term academic exchange with internship opportunities.

1. In Academic Year 2024, the University welcomed 34 students from partner universities in India, Indonesia, and Vietnam, providing academic exchange and practical training while establishing pathways for future graduate study at NFU.

In addition, through the integration of TEEP and the Indonesian Vocational Education International Mobility Scholarship Program, NFU hosted 20 outstanding Indonesian students, strengthening talent cultivation under Taiwan's New Southbound Policy.

- 2.
3. To broaden students' international perspectives, NFU also organized overseas learning opportunities. In collaboration with the British Columbia Institute of Technology (BCIT) in Canada, 16 students participated in summer internship and experiential learning programs, enhancing their professional competencies and global outlook.

4. As a member of the TALtech Alliance, NFU works closely with Germany's HAWtech Alliance to promote bilateral cooperation in higher education. In 2024, representatives from HAWtech visited NFU to explore opportunities for student exchange, faculty mobility, and collaborative research, while touring the University's distinctive research facilities, including the Energy Research Center and the Research Center for Intelligent Machinery and Smart Manufacturing.

5. NFU actively promotes intercultural understanding by organizing multicultural events led by international students, including celebrations of the Vietnamese Coffee Festival, Eid al-Fitr, Diwali (Festival of Lights), and international food festivals. These activities encourage interaction between domestic and international students while fostering a diverse, inclusive, and globally connected campus environment.

6. To support international students throughout their academic journey, the University provides bilingual administrative services, peer support, English teaching assistant opportunities, community-based English teaching programs, and religion-friendly facilities. These initiatives facilitate academic success, cultural adaptation, and meaningful engagement with local communities.

7. NFU assists international students in pursuing employment opportunities in Taiwan by providing English-language internship information, career counseling, recruitment events, legal and immigration guidance, and industry matching services in collaboration with the Office of Industry-Academia Collaboration and Services. Through long- and short-term internships and employer partnerships, the University strengthens graduates' career readiness and supports the retention of international talent in Taiwan.

8. Director Ichwan Josesoef of the Tourism and Transportation Division of the Indonesian Economic and Trade Office to Taipei, and Ibu Kartika Dewi, Vice President of the Indonesian Diaspora Network (IDN) Global, attended NFU's anniversary celebration to extend their congratulations. On behalf of Indonesian Prince K.R.A. Tejo Bagus Sunaryo, Director Ichwan Josesoef presented NFU with a handcrafted ceremonial royal sword, recognizing the University's achievements in cultivating young Indonesian talent. (Source: Extracurricular Activities Section, Office of Student Affairs; Secretariat Office; University News)

9. A Diwali Festival celebration was held at the University's Smart Academy, bringing together international students from around the world as well as Taiwanese students and faculty to explore Indian culture through a variety of performances and cultural experiences. One of the highlights was the Diya Lighting Ceremony, symbolizing blessings and light, which offered participants an opportunity to experience the solemnity and spiritual significance of Indian religious traditions. Sanmugasundaram Ravichandran, an Indian student in the Ph.D. Program in Smart Industry Technology Research and Development, was also invited to introduce the origins and significance of Diwali, sharing the message of hope and positive energy embodied in the "Festival of Lights." (Source: University News; Office of International Affairs)

10. On December 30, 2024, NFU welcomed Indonesian Prince K.R.A. Tejo Bagus Sunaryo, who also serves as the Director of Arts and Culture of the Surakarta Royal Palace, for a cultural exchange visit. The University also held a "Kris Blessing Ceremony and Taiwan-Indonesia Cultural Exchange." During the ceremony, Prince Tejo Bagus Sunaryo presented NFU with a handcrafted Kris, a traditional Indonesian ceremonial dagger. Adorned with red and white roses, the Kris was formally presented to NFU President Hsin-Liang Chang as a symbol of blessing and prosperity for the University. The visit also promoted bilateral exchanges between Taiwan and Indonesia in agricultural technology and culture. (Source: University News; Secretariat Office)

11. NFU also continued to expand strategic partnerships with international universities. Delegations from King Mongkut's Institute of Technology Ladkrabang (KMIL) and Thaksin University (TSU) in Thailand visited the University to strengthen cooperation in aerospace engineering, joint research, international internships, dual-degree programs, and language and cultural exchange.

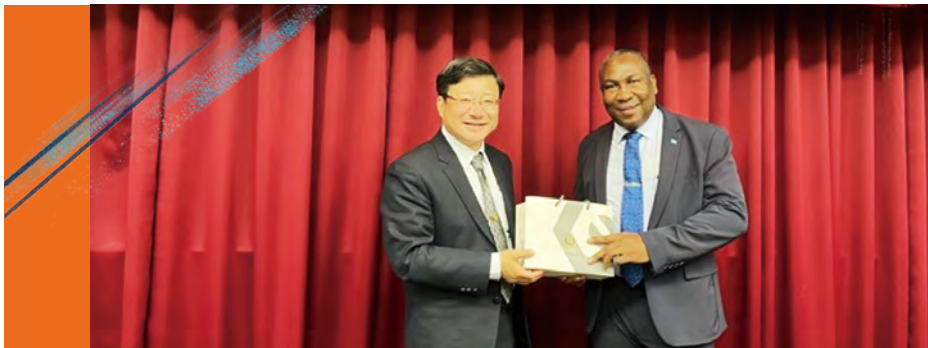
12. Building on these collaborations, KMIL conducted follow-up visits in 2025 to further advance cooperation in aerospace education and talent development.

13.

To promote international engagement, NFU held an International Lecture on April 10, 2025, featuring H.E. Ambassador Dr. Robert Lewis, Ambassador of Saint Lucia to Taiwan. Ambassador Lewis shared insights into the history, culture, and educational development of Saint Lucia, fostering educational and cultural exchanges between Taiwan and Saint Lucia. During his visit, Ambassador Lewis experienced a ride in an autonomous vehicle and toured the Smart Machinery and Machining Laboratory and the Biotechnology Pilot Plant. He also expressed strong recognition of NFU's aviation talent development model, which integrates professional aviation education, degree programs, and training for aircraft maintenance engineer certification. Ambassador Lewis noted the longstanding friendship between Taiwan and Saint Lucia and their shared commitment to talent development. He expressed hope that NFU would continue to provide diverse academic programs and learning resources to attract more Saint Lucian students to study in Taiwan, further strengthening bilateral educational exchanges and friendly relations.

14.

From June 29 to July 4, 2025, the Office of International Affairs hosted Prof. Ihsan Uluocak from the Department of Electrical and Electronics Engineering at Çukurova University, Türkiye, for a campus visit and discussions on academic exchange and collaboration. During his visit, five international lectures on topics including artificial intelligence and deep learning were organized to enhance students' ability to participate in English-medium instruction (EMI), strengthen their motivation for foreign language learning, and encourage greater participation in overseas exchange programs.





4-7 Resource Sharing and Open Access Platforms

SDGs | 4

SDG Targets | 4.4, 4.6, 12.8

Art Exhibitions and Cultural Engagement

NFU's Art Center serves as a multifunctional platform integrating exhibition, education, collection, research, and public engagement. Beyond hosting regular exhibitions and performances, the Center actively promotes arts education through thematic exhibitions, educational programs, and community outreach initiatives that encourage students and the public to engage with art and participate in cultural activities. Guided by the vision of bringing art into everyday learning, the Art Center integrates artistic practice with interdisciplinary teaching, administrative support, and the University's technological strengths to develop innovative and diverse forms of artistic expression. By combining art with science, technology, and design, the Center creates cross-disciplinary learning experiences that enrich both campus life and academic development. The University's cultural engagement extends beyond campus through collaborations with local communities, cultural institutions, and educational organizations across Taiwan. Art exhibitions, outreach programs, and educational activities are regularly organized in community venues and cultural facilities, while arts education initiatives for primary and secondary schools, including those in rural and underserved areas, broaden access to cultural resources and promote equal learning opportunities. Through these initiatives, NFU enhances public access to arts and culture, fosters lifelong learning, strengthens university-community partnerships, and fulfills its social responsibility by expanding the cultural value of higher education.

Art Exhibitions and Educational Programs (Academic Years 111–113)

Academic Year	Art Exhibitions	Visitors	Workshops	Participants	Student Public Performances	Participants
111	11	6,432	1	104	2	361
112	9	6,356	6	257	7	748
113	9	6,476	4	126	6	829

Career Exploration Programs and Exhibition Participation (Academic Years 111–113)

Academic Year	Educational Activities	Activity Participants	Group Visits	Total Exhibition Visitors
111	93	10,346	289	216,799
112	110	2,678	275	118,843
113	100	6,534	281	93,918

Quanta Arts Education Traveling Exhibition Program (Academic Years 111–113)

Academic Year	Traveling Exhibitions	Visitors	Training Workshops	Participants
111	13	7,471	12	656
112	15	9,465	9	835
113	15	9,512	9	863



▲ Artist-guided tour of the *Me/Us* Joint Exhibition by Huang Chi-Hsuan and Tsai Chia-Yin



▲ Ceramic Art Exhibition by Chen Yung-Chu and Wang Ming-Tsung



▲ Students from local elementary and junior high schools visiting the NFU History Museum special exhibition



▲ Student Band Club performance at the Campus Christmas and Winter Festival

▼ Students participating in the "Heroes of Skills" exhibition under the Career Exploration Program at the National Library of Public Information

▼ Students participating in the STEAM "Straw Robot" hands-on workshop

▼ Opening ceremony of the Quanta Arts Education Traveling Exhibition in Yunlin County

▼ Students participating in the docent training workshop under the Quanta Arts Education Traveling Exhibition Program



Library Services and Resource Sharing

NFU Library is committed to maximizing the value and accessibility of its collections by promoting open access to knowledge and strengthening resource-sharing networks. In addition to providing free on-site access to library resources for the general public, the Library allows external users to apply for library cards and borrow collections, making academic resources more accessible to local communities and lifelong learners. To enhance interlibrary collaboration, the Library actively participates in the National Document Delivery Service (NDDS) and the Changhua-Yunlin-Chiayi Academic Library Consortium, facilitating efficient access to scholarly resources across institutions. The University has also established reciprocal borrowing agreements with National Chung Hsing University, National Taiwan University of Arts, National Huwei Senior High School, and National Huwei Agricultural and Industrial Vocational High School, enabling the sharing of library collections, learning spaces, and academic resources while strengthening regional educational partnerships.

Beyond conventional library services, NFU provides complimentary interlibrary cooperation services in the specialized fields of physics, chemistry, and mathematics. Through research promotion programs supported by the National Science and Technology Council (NSTC), the Library facilitates access to academic literature and research resources, fostering interdisciplinary collaboration and promoting the open exchange of scholarly knowledge. By expanding access to information resources and strengthening collaborative networks, NFU Library supports lifelong learning, advances academic excellence, and fulfills the University's commitment to knowledge sharing and social responsibility.

Library Visits and External Access (2021–2025)

Year	Visits through Interlibrary Cooperation	External User Visits	Total Library Visits
2021	102	5,019	172,712
2022	471	11,955	263,285
2023	346	20,111	297,741
2024	54	17,453	322,794
2025	80	15,155	327,532

• Note: Library access was temporarily suspended from May to August 2021 due to the COVID-19 pandemic.





05

**Green Campus and
Environmental Sustainability**

Management of Material Topics

Sustainability Dimension Environmental

Corresponding SDGs

Material Topic

Environmental Health Management;
Environmental Education;
Natural Ecosystems and Biodiversity

Corresponding GRI Standards

GRI 403; Organization-specific Topic

Policies and Commitments

1. Implement the National Formosa University Environmental Protection Policy to strengthen environmental awareness and encourage sustainable practices through education and training.
2. Promote environmentally responsible campus operations by encouraging energy conservation, resource efficiency, waste reduction, and responsible consumption while maintaining a clean and healthy campus environment.
3. Enhance campus landscapes and environmental quality, promote ecological education, foster a nature-friendly campus, and preserve biodiversity through sustainable planning and development of the High-Speed Rail (HSR) Campus.

Objectives

1. Promote waste reduction at the source by minimizing the use of single-use products, reducing campus waste, increasing resource recycling, and fostering sustainable consumption habits.
2. Deliver academic courses, joint training programs, and USR projects to enhance awareness of net-zero emissions, renewable energy, circular resource use, and biodiversity conservation among faculty, students, and local communities, thereby cultivating sustainability talent and building a green campus.
3. Ensure that new campus development complies with environmental impact assessment commitments by preserving biodiversity and ecological habitats while promoting sustainable agriculture and ecological conservation in Yunlin through USR initiatives.

Grievance Mechanisms

- Center for Environmental Protection and Occupational Safety and Health (website and contact information available at: <https://she.nfu.edu.tw>; Email: she@nfu.edu.tw).
- Campus Landscape Committee.

Actions and Achievements

- Continued implementing campus energy conservation and carbon reduction measures through the installation of solar photovoltaic systems, replacement of LED lighting, deployment of an energy management system, and upgrading aging transformers to improve energy efficiency and reduce greenhouse gas emissions.
- By 2025, the cumulative installed capacity of campus solar photovoltaic systems reached 2,062.69 kWp. Through a combination of self-consumption and electricity sales, NFU increased the share of renewable energy while reducing dependence on externally purchased electricity.
- Continued advancing the 2048 Net-Zero Carbon Emissions Roadmap, using 2022 as the baseline year, with interim reduction targets of 15% by 2028, 50% by 2034, and net-zero emissions by 2048.
- Participated in the Huwei Tides: Resilient Riverside Revitalization Project, integrating teaching, research, and community partnerships to support the sustainable restoration of the Beigang River waterfront.
- Established a campus microalgae carbon sequestration demonstration site integrating rainwater harvesting, carbon capture, and smart monitoring technologies, creating a sustainable demonstration platform that supports carbon reduction, water conservation, teaching, and research.



5-1 Energy and Carbon Emissions Management

SDGs | 7, 9, 11, 12, 13

SDG Targets | 7.2, 7.3, 9.4, 11.6, 12.2, 13.2

Energy Management Measures

To better understand and manage campus energy consumption, National Formosa University (NFU) monitors the use of major energy sources, including gasoline, diesel, electricity, and natural gas. Energy consumption data are systematically collected and analyzed to support energy management, identify opportunities for efficiency improvement, and ensure transparent disclosure. The following sections present NFU's energy consumption statistics and related performance indicators.

Gasoline and Diesel Consumption (2021–2025)

Year	Gasoline (GJ)	Share of Total Carbon Emissions	Diesel (GJ)	Share of Total Carbon Emissions
2021	154.96		147.38	
2022	159.20		326.36	
2023	171.51		157.14	
2024	158.93		159.84	
2025	178.15	0.13%	172.74	0.13%

Electricity Consumption (2021–2025)

Year	Electricity Consumption (kWh)	Share of Total Carbon Emissions
2021	12,185,668	
2022	12,816,999	
2023	13,322,960	
2024	13,920,696	
2025	14,140,908	58.16%

Natural Gas Consumption (2021–2025)

Year	Natural Gas Consumption	Share of Total Carbon Emissions
2021	42,946	
2022	38,970	
2023	27,169	
2024	33,937	
2025	22,035	0.42%

- Calculation Method: Gasoline (GJ) = Gasoline Consumption (L) × 0.0342
 Diesel (GJ) = Diesel Consumption (L) × 0.0386
 Total Energy Consumption (GJ) = Gasoline Energy (GJ) + Diesel Energy (GJ)

Solar Photovoltaic (PV) Power Generation

To support the transition toward renewable energy and reduce reliance on purchased electricity, National Formosa University (NFU) has installed solar photovoltaic (PV) systems across the main campus and student residence areas. Electricity generated by these systems is either consumed on campus or exported to the public grid, contributing to renewable energy generation, enhanced energy resilience, and reductions in greenhouse gas emissions. Table 5.4 summarizes the installed PV capacity and annual electricity generation from 2020 to 2025.

* Solar PV Installed Capacity and Electricity Generation

Year	Installation Area	Installed Capacity (kWp)		Electricity Generated (kWh)	
		Self-consumption	Grid Export	Self-consumption	Grid Export
2020	Main Campus	31.74	207.68	-	298,849
	Student Residence Area	-	499.96	-	705,026
2021	Main Campus	31.74	207.68	-	295,411
	Student Residence Area	-	499.96	-	689,991
2022	Main Campus	31.74	207.68	45,109	291,812
	Student Residence Area	-	499.96	-	670,639
2023	Main Campus	31.74	950.47	45,673	836,517
	Student Residence Area	-	499.96	-	662,001
2024	Main Campus	31.74	950.47	38,825	810,021
	Student Residence Area	-	499.96	-	629,448
2025	Main Campus	31.74	946.325	39,095	1,299,673
	Student Residence Area	-	1,084.620	-	852,261

In addition to expanding renewable energy generation through solar photovoltaic (PV) systems, NFU continues to implement a range of energy efficiency measures to optimize electricity consumption and improve campus energy performance. These initiatives include contract capacity optimization, campus-wide LED lighting upgrades, deployment of smart energy management systems, and replacement of aging transformers. Together, these measures contribute to reduced electricity consumption, lower greenhouse gas emissions, and progress toward the University's long-term net-zero goals.

Initiative	2025 Implementation	Expected Benefits
Contract Capacity Optimization	Electricity contract capacity is reviewed every six months to ensure that the contracted demand accurately reflects campus electricity usage and to optimize energy management.	Improved electricity demand management and reduced unnecessary electricity costs.
LED Lighting Upgrade	A total of 598 conventional lighting fixtures in the College of Humanities and Applied Sciences Building were replaced with high-efficiency LED lighting. The project, with a total investment of NT\$1.59 million, was completed in May 2025. NFU also secured a NT\$300,000 government subsidy through the Ministry of Economic Affairs' energy efficiency incentive program.	Estimated annual electricity savings of 88,133.76 kWh.
Energy Management System (EMS)	A smart energy management system was installed on the First Campus. Air conditioning and lighting in 52 classrooms across five academic buildings were integrated with a class schedule-based control mechanism. Load control was also implemented for 142 air conditioning units. Construction commenced in 2025 and is scheduled for completion in June 2026.	Estimated annual electricity savings of 35,198 kWh.
Replacement and Consolidation of Aging Transformers	Five aging high-voltage transformers at the General Building I, General Building II, and Electrical Engineering Building substations were replaced and consolidated. Construction commenced in 2025 and is expected to be completed in June 2026.	Estimated annual electricity savings of 103,660 kWh.

Procurement of Energy-Efficient Lighting and Air Conditioning Equipment (2020–2025)

Year	LED Lighting Fixtures Procured	Energy-Efficient Air Conditioning Units Procured
2020	1,129	
2021	2,937	326
2022	911	666
2023	345	315
2024	1,481	253
2025	598	130



5-2 Water Resources and Waste Management

SDGs | 6, 11, 12, 14, 15

SDG Targets | 6.3, 6.4, 6.5, 11.6, 12.2, 12.4, 12.5, 14.1, 15.1

Water Resources and Wastewater Management

National Formosa University (NFU) relies primarily on municipal water as its sole source of water supply. Domestic wastewater generated on campus is managed and discharged in accordance with applicable environmental regulations and the requirements of the competent authorities. As the campus is not currently connected to a municipal sewerage system, domestic wastewater is temporarily conveyed to septic tanks and drainage channels for preliminary management. Domestic wastewater is managed separately and is not mixed with other wastewater streams. Upon completion of the local public sewerage infrastructure, NFU plans to connect its campus drainage system to the municipal sewerage network to further enhance wastewater management and environmental protection.

Municipal Water Withdrawal and Water Consumption (2021–2025)

Year	Municipal Water Withdrawal (m ³)	Average Daily Water Consumption per Capita (L/person/day)	Change in LPCD (%)
2021	258,499	61.62	-8.03
2022	244,173	58.21	-3.42
2023	233,566	53.69	-7.76
2024	250,639	56.07	4.43
2025	275,060	58.99	5.21

Water Conservation Initiatives

To improve water-use efficiency and promote the sustainable use of water resources, National Formosa University (NFU) has implemented a range of water conservation measures across its campuses. These initiatives include wastewater reclamation, rainwater harvesting, and the gradual replacement of conventional plumbing fixtures with water-efficient equipment. Together, these measures reduce reliance on municipal water supplies while supporting sustainable campus operations.

1. Wastewater Reclamation and Reuse System

At the High-Speed Rail (HSR) Campus, NFU has planned a wastewater treatment and reuse system to collect domestic wastewater through a dedicated sewer network with separate wastewater and stormwater drainage. Following treatment to meet national effluent discharge standards, reclaimed water will be stored in a reclaimed water reservoir and reused for landscape irrigation, road cleaning, toilet flushing, and replenishment of ornamental water features. This system is expected to reduce potable water consumption while promoting the efficient reuse of water resources.

2. Rainwater Harvesting and Reuse System

NFU has established rainwater harvesting facilities at the College of Humanities and Applied Sciences Building on the Third Campus. In addition, the HSR Campus incorporates rainwater collection and reuse systems designed in accordance with the *Technical Specifications for Rainwater Harvesting Systems in Buildings* issued by Taiwan's Ministry of the Interior. Collected rainwater is treated through storage, filtration, and disinfection facilities before being reused for landscape irrigation, road cleaning, and toilet flushing.

Based on the planned roof catchment area, the estimated average rainwater collection capacity is:

$$W_r = R \text{ (Average Daily Rainfall at the Site)} \times A_r \text{ (Catchment Area)} \times P \text{ (Daily Rainfall Probability)}$$

Phase I-II:

$$= 4.68\text{mm / day} \times 6,000\text{m}^2 \times 0.273 = 7,665.84 \text{ (L / day)} \text{ approximately } 7.67 \text{ m}^3/\text{day (CMD)}$$

Long-term full development:

$$= 4.68\text{mm / day} \times 12,000\text{m}^2 \times 0.273 = 15,331.68 \text{ (L / day)} \text{ approximately } 15.3 \text{ m}^3/\text{day (CMD)}$$

3. Water-Efficient Fixtures

NFU continues to replace conventional plumbing fixtures with water-efficient alternatives, including toilets, urinals, and faucets. These upgrades contribute to reduced water consumption and improved water-use efficiency across campus.

Installation of Water-Efficient Faucets (2025)

	Faucets		Self-Closing Faucets	Sensor-Activated Faucets
	Conventional	Water-Efficient		
Quantity	914	676	2	20
Water-Saving Fixture Installation Rate	55.71%			

Installation of Water-Efficient Toilet Fixtures (2025)

	Urinals	High-Cistern Toilets		Low-Cistern Toilets		Flush-Valve Toilets	
		Standard	Water-Efficient	Standard	Water-Efficient	Standard	Water-Efficient
Men's Restrooms	802	249	1	38	65	141	56
Women's Restrooms	-	56	56	114	105	38	167
Total	802	305	57	152	170	179	223

Water Quality Management

To safeguard drinking water quality and ensure a safe and healthy campus environment, National Formosa University (NFU) implements routine inspection, maintenance, and water quality monitoring programs for its water supply and drinking water facilities. These measures help ensure compliance with relevant public health regulations while providing safe drinking water for faculty, staff, and students.

A total of 85 water storage tanks and reservoirs are cleaned on a regular basis, with each facility undergoing cleaning **once every two years**.

Water quality testing is conducted for 260 drinking water dispensers, with each unit tested **approximately once every 18 months** to ensure compliance with drinking water quality standards.

Preventive maintenance is performed **monthly** on 15 reverse osmosis (RO) water purification systems and 260 drinking water dispensers to maintain stable operation and drinking water quality.

Water Resource Conservation at the High-Speed Rail (HSR) Campus

As part of the environmental commitments outlined in the Environmental Impact Assessment (EIA) for the High-Speed Rail (HSR) Campus, NFU has incorporated multiple water resource conservation measures into campus planning and development. These measures aim to enhance groundwater recharge, increase surface permeability, and promote sustainable stormwater management. Key conservation measures include:

1. No groundwater extraction during either the construction or operational phases.

2. Partially permeable detention ponds designed to facilitate groundwater recharge while mitigating the risk of land subsidence.

3. Permeable pavement installed in statutory open spaces, outdoor parking areas, and pedestrian walkways to increase rainwater infiltration.

4. Reduced building coverage and floor area ratios, voluntarily lowering the statutory building coverage ratio from 60% to 50% and the floor area ratio from 180% to 150%, thereby increasing permeable open space across the campus.

As a result, the HSR Campus, covering a total site area of 17.181 hectares, has been designed with approximately 10.34 hectares of permeable surface, representing 60.2% of the total campus area. These measures enhance stormwater infiltration, support groundwater recharge, and strengthen the campus's long-term resilience to climate change.

Circular Resource Management and Waste Management

National Formosa University (NFU) is committed to promoting resource efficiency and reducing environmental impacts through comprehensive waste management and circular resource practices. Since adopting the National Formosa University Environmental Protection Policy in 2009, the University has strengthened environmental awareness through education, training, and campus-wide awareness campaigns. These initiatives encourage faculty, staff, and students to adopt environmentally responsible behaviors, including energy conservation, waste reduction, resource reuse, and sustainable consumption.

In support of Taiwan's environmental policies, NFU actively promotes waste reduction at the source by reducing the use of single-use products, such as disposable tableware and bottled drinking water. The University also implements the Regulations for Waste Reduction and Resource Recycling Management, which establish campus-wide waste reduction practices, recycling systems, and resource recovery initiatives. Hazardous waste generated from teaching and research laboratories is collected, stored, transported, and disposed of by qualified waste management contractors in accordance with applicable environmental regulations.

Waste Sources and Management

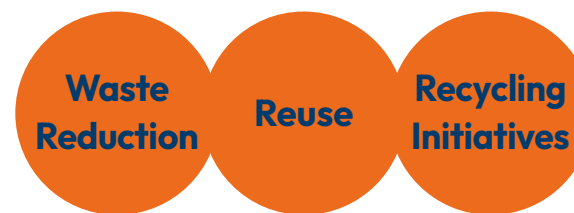
Waste generated at NFU is broadly classified into general waste and hazardous industrial waste. General waste, including municipal solid waste and recyclable materials generated through campus activities, is separated at the source and collected in accordance with Taiwan's mandatory waste classification regulations before being transported by licensed waste collection contractors. Hazardous industrial waste generated by laboratories—including organic liquid waste, inorganic liquid waste, solid chemical waste, medical waste, and expired laboratory chemicals—is temporarily stored in designated storage facilities before being transferred to the Environmental Resources Research and Management Center at National Cheng Kung University, an authorized waste treatment organization supported by the Ministry of Education, for final treatment and disposal in accordance with regulatory requirements.

Waste Generation by Category (2025)

Waste Category	Waste Type	Quantity (kg)
General Waste	General Waste (including yard waste)	690,050
	Waste Paper	9,502.1
	Scrap Metal Cans	350.2
	PET Bottles	356
	Beverage Cartons	80.4
	Glass Containers	532.9
	Waste Batteries	0.25
	Waste Optical Discs	0.15
	Food Waste	135
	Other Recyclables	94.3
Total General Waste		701,101.3
Hazardous Industrial Waste	Waste Chemicals (B-0399)	55
	Organic Liquid Waste (C-0169)	2,060
	Inorganic Liquid Waste – Alkaline (C-0201)	375
	Inorganic Liquid Waste – Acidic (C-0202)	2,325
	Solid Chemical Waste (C-0399)	2,580
	Laboratory Animal Carcasses (C-0513)	0
	Medical Waste (C-0599)	67
	Waste Oil Mixtures (D-1799)	0
Total Hazardous Industrial Waste		7,462

Waste Reduction and Recycling Initiatives

To promote resource circularity and minimize environmental impacts, National Formosa University (NFU) has established a comprehensive waste reduction and recycling management system. Guided by the Regulations for Waste Reduction and Resource Recycling Management and the Regulations Governing Toxic and Concerned Chemical Substances and Hazardous Waste, the University implements source reduction, waste segregation, recycling, and responsible waste disposal throughout the campus. A "No Garbage on the Ground" policy is also enforced to strengthen waste classification and maintain a clean campus environment. All collected waste is transported and treated by licensed waste management contractors in accordance with applicable environmental regulations.



1. Environmental Protection Policy

NFU's Environmental Protection Policy serves as the foundation for campus environmental management. Through environmental education, training programs, and awareness campaigns, the University encourages faculty, staff, and students to adopt environmentally responsible lifestyles, including energy conservation, resource efficiency, waste reduction, and sustainable consumption. These initiatives foster environmental stewardship and support the implementation of campus sustainability objectives.

2. General Waste Reduction

To reduce municipal solid waste generation, NFU promotes campus beautification, source segregation, and the "No Garbage on the Ground" policy. Waste sorting stations are installed throughout the campus, and collected waste undergoes secondary sorting by contracted cleaning personnel to maximize recycling and reduce the volume of waste sent for disposal.

3. Laboratory Waste Reduction

NFU encourages laboratories and research units to minimize hazardous waste generation through good laboratory management practices. Key measures include:

- (1) Purchasing chemical reagents according to actual operational needs to avoid expiration and unnecessary waste. Promoting the sharing of unused chemicals among laboratories whenever appropriate.
- (2) Encouraging suppliers to implement take-back programs for chemical containers and laboratory materials whenever feasible.

4. Reduction of Single-Use Products

NFU actively reduces the use of disposable products in meetings, training programs, conferences, and campus events by implementing the following measures:

- (1) Replacing disposable tableware with reusable dining utensils whenever possible.
- (2) Eliminating disposable paper cups, plastic cups, and bottled drinking water by providing drinking fountains or bulk water dispensers.
- (3) Prioritizing reusable food and beverage containers for catering services.
- (4) Encouraging participants to bring reusable cups and tableware through event announcements and promotional materials.

These initiatives are promoted through campus posters, electronic communications, and official administrative announcements to strengthen environmental awareness and encourage sustainable behaviors across the University community.

Reuse Initiatives and Circular Economy

Second-Hand Textbook Exchange: At the end of each academic year, students are encouraged to donate used textbooks when moving out of campus residences. Before the beginning of the following semester, NFU organizes a second-hand textbook exchange event, allowing students to obtain textbooks at no cost. The program promotes resource reuse, reduces students' financial burden, and encourages the legal use of copyrighted educational materials through the circulation of legitimate textbooks.

Second-Hand Goods Charity Sale: NFU operates Honesty Shops within student residence halls, where faculty, staff, and students donate reusable second-hand goods. The shops operate on a self-service basis without on-site staff, promoting honesty and trust among participants. Proceeds from the sales are donated to the University's Emergency Financial Aid Fund or charitable organizations, combining resource reuse with social responsibility and community care.

Results of Second-Hand Textbook Exchange and Charity Sales (Academic Years 2021–2025)

Academic Year	Second-Hand Textbooks Distributed	Charity Sale Donations (NT\$)
110	173	28,825
111	242	24,206
112	188	16,399
113	339	22,203
114	215	18,117



Donated Second-Hand Textbooks Collected During Student Move-Out



Second-Hand Textbook Exchange Program

Honesty Shop for Second-Hand Goods Charity Sale



University President Presenting Charity Sale Proceeds to the Yunlin Family Support Center



Circular Utilization of Agricultural Residues

National Formosa University (NFU) is committed to promoting the circular utilization of agricultural residues by transforming underutilized biomass into renewable energy resources. Bamboo is one of Taiwan's most abundant renewable materials and possesses significant carbon sequestration potential. However, regular thinning is essential to maintain healthy bamboo forests, resulting in large quantities of residual bamboo biomass that are often difficult and costly for farmers to manage. To address this challenge, NFU established the Bamboo Biomass Circular Agriculture Demonstration Site in Mayuan Village, Gukeng Township, one of Taiwan's major bamboo-producing areas. By integrating expertise from the Department of Power Mechanical Engineering and the Department of Agricultural Biotechnology, the University developed an on-site bamboo shredding system that enables farmers to process bamboo residues directly at the source.

The shredded bamboo biomass is subsequently converted into high-energy-density biomass fuel pellets, reducing transportation costs while creating a value-added renewable energy resource. This circular utilization model transforms agricultural residues into sustainable bioenergy capable of partially replacing fossil fuels, thereby reducing waste generation and contributing to carbon emission reduction.

Beyond technology development, the demonstration site regularly organizes technical training programs, field demonstrations, and knowledge-sharing activities to promote biomass utilization technologies among local farmers and industry stakeholders. Through industry-academia collaboration and community engagement, NFU supports the development of green energy industries while advancing the circular economy and sustainable rural development.



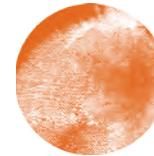
▲ Self-Propelled Bamboo Shredder



▲ Operational Training for the Self-Propelled Bamboo Shredder



▲ Bamboo Residues Before Shredding



5-3 Green Procurement and Sustainable Supply Chain

SDGs | 8, 10, 12

SDG Targets | 8.4, 10.2, 12.6, 12.7

National Formosa University (NFU) conducts all procurement activities in accordance with Taiwan's Government Procurement Act and relevant public procurement regulations. In addition to ensuring fairness, transparency, and accountability throughout the procurement process, the University incorporates environmental and social responsibility considerations into purchasing decisions to support sustainable campus development.

NFU actively promotes both priority procurement and green procurement. Priority procurement supports social inclusion by giving preference to products and services provided by welfare organizations and sheltered workshops for persons with disabilities, while green procurement prioritizes environmentally preferable products carrying recognized environmental certifications. Through these procurement practices, NFU seeks to reduce environmental impacts, promote responsible consumption, and fulfill its social responsibility commitments.

Priority Procurement and Green Procurement Performance (2021–2025)

Year	Priority Procurement		Green Procurement	
	(NT\$)	Ratio (%)	(NT\$)	Ratio (%)
2021	353,770	5	36,009,064	99.92
2022	341,660	5.04	48,848,595	99.53
2023	443,780	5.97	31,655,046	99.91
2024	270,700	5.18	29,024,685	96.09
2025	572,465	10.09	37,443,848	99.77

• Note: The priority procurement ratio is calculated as: $(\text{Priority procurement contract value} + \text{unsuccessful priority procurement value following public announcement and negotiation}) \div \text{Total applicable procurement value}$, in accordance with the Ministry of Health and Welfare's regulations. The minimum required ratio is 10%.

The green procurement ratio represents the proportion of government-designated procurement expenditure spent on products certified with recognized environmental labels.

5-4 Biodiversity and Campus Environment

SDGs | 3, 6, 7, 9, 11, 12, 13, 14, 15

SDG Targets | 3.9, 6.3, 7.2, 7.3, 9.4, 11.6, 12.2, 12.4, 12.5, 13.1, 14.1, 15.9

Maguang Organic Farm: Enhancing Climate Resilience through Nature-Based Solutions

National Formosa University (NFU) is committed to strengthening climate resilience in agriculture through nature-based solutions and sustainable water resource management. At the Maguang Organic Farm in Yunlin County, the University has shifted its focus from improving cultivation techniques to enhancing farmland resilience by restoring agricultural water environments and optimizing water management systems.

Rather than relying on large-scale hydraulic engineering, NFU adopted a small-scale, space-based water management strategy by rehabilitating existing farm ponds. During periods of abundant water availability and the non-irrigation season, water is diverted from the Longyan Canal into these ponds, transforming underutilized spaces into distributed water storage facilities. This approach serves three key functions: Delaying stormwater runoff to reduce flood risks; Distributing water storage across multiple locations to relieve pressure on drainage systems; and Storing water resources during wet periods to improve drought preparedness. These measures have significantly enhanced the climate resilience of surrounding farmland while reducing dependence on groundwater extraction.

In addition to improving water security, the restored ponds have created valuable ecological habitats that support aquatic organisms and attract waterbirds. Increased surface water also contributes to local evaporative cooling, helping regulate the microclimate surrounding agricultural fields. NFU further integrates environmental education into the project through the 4-H Agricultural Water Management Camp, where young participants engage in field-based learning to better understand sustainable water management, agricultural ecosystems, and environmental stewardship. To strengthen long-term agricultural resilience, the University also assists local farmers in transitioning to drought-tolerant crops, enabling more efficient water use while maintaining stable agricultural productivity under increasingly extreme climate conditions.



Ecological Retention Pond and Floating Wetland at Full Water Capacity



Little Ringed Plover (*Charadrius dubius*) Observed in the Farmland



Professor Shou-Ku Tai Introducing Paddy Field Water Management



Students Experiencing Agricultural Irrigation Systems During Field-Based Learning

Biodiversity Monitoring and Green Infrastructure Assessment

To strengthen biodiversity conservation and improve ecological management, National Formosa University (NFU) conducted comprehensive surveys of trees and insects across its First Campus. The survey documented 57 tree species comprising 683 individual trees, as well as 16 insect families, establishing a baseline biodiversity database to support long-term ecological monitoring and campus landscape management. To further enhance green infrastructure management, NFU employed unmanned aerial vehicles (UAVs) to collect data on tree height and trunk diameter. These data provide the foundation for developing a campus tree inventory and carbon sequestration database, supporting future carbon stock assessments and campus greening strategies.

In addition, UAV-based remote sensing was used to assess the campus Normalized Difference Vegetation Index (NDVI), a widely recognized indicator of vegetation health and green coverage. The NDVI analysis provides quantitative information on campus vegetation conditions and serves as a scientific reference for future landscape planning, biodiversity enhancement, and the identification of priority areas for additional greening.

Ecological Conservation at the High-Speed Rail Campus

National Formosa University (NFU) conducts ecological surveys and habitat restoration at its High-Speed Rail (HSR) Campus to conserve biodiversity and reduce the ecological impacts associated with campus development. Survey methods included plot-based trapping, sticky-trap sampling, sweep-netting, and line-transect observations. The collected specimens and field observations were subjected to preliminary identification and counting, and a species inventory was established for subsequent ecological analysis.

The survey recorded a total of 687 individual organisms across 61 families. Based on the findings, NFU also organized an ecological statistics workshop to strengthen participants' understanding of biodiversity survey methods, species data, and ecological monitoring. To enhance pollinator habitats, NFU established a 12 m² nectar and larval host plant area within the campus. Nectar-producing species planted in the area included porterweed, elderberry, *Eupatorium shimadae*, Taiwan eupatorium, and tropical milkweed. Climbing milkweed was also planted near the chinaberry trees adjacent to the conservation area to provide a food source for butterfly larvae. Through the combined provision of nectar plants and larval host plants, the habitat restoration initiative supports different stages of the butterfly life cycle and improves the ecological connectivity and habitat diversity of the campus. NFU has implemented a range of ecological protection measures throughout the construction and operation of the HSR Campus:

1. Before construction, the University surveyed existing mature trees in and around the development area. Trees exceeding 10 meters in height and possessing landscape value were preserved on-site or transplanted. A total of 26 mature trees were designated for transplantation, accompanied by protection principles and follow-up management procedures. Additional ash trees were planted during the rainy season and monitored through weekly watering and growth assessments. Leaf observations conducted at the end of June indicated healthy growth.
2. Ecological monitoring continues throughout both the construction and operational phases. Surveys of terrestrial and aquatic fauna are conducted once every quarter to track changes in local ecological resources and provide a basis for adaptive management.
3. The University minimizes the use of herbicides and chemical fertilizers to maintain more natural and diverse habitat conditions and reduce potential impacts on soil organisms, insects, and other wildlife.

NFU established a microalgae-based carbon sequestration demonstration site, referred to as the Blue Carbon Farm, for research and educational purposes. An independent learning course entitled Marine Ecology and Smart Ecological Tank Development engaged 38 students, supported by one faculty member and two teaching assistants. The course integrated marine ecology, microalgae cultivation, carbon sequestration, and smart monitoring technologies.

Promoting the “Huwei Tide” Resilient Waterfront Initiative

National Formosa University (NFU) actively participates in the Huwei Tide: Resilient Waterfront Integration Initiative, a regional collaboration aimed at enhancing climate resilience and sustainable watershed management along the Beigang River. In 2025, NFU signed a Memorandum of Understanding (MOU) with the Fifth River Management Branch of the Water Resources Agency, Ministry of Economic Affairs, to jointly promote the sustainable development of the Beigang River waterfront. The partnership demonstrates NFU's commitment to integrating academic expertise, interdisciplinary research, and community engagement into regional environmental governance while advancing sustainable development and fulfilling the University's social responsibility mission.

The Huwei Tide Initiative is Taiwan's first river engineering project developed through an international design competition. Centered on climate adaptation and resilient urban development, the project adopts nature-based solutions and integrated stormwater management strategies, including runoff sharing, distributed flood retention, rainwater diversion, and floodplain storage. These measures aim to reduce flood risks, enhance watershed resilience, and improve the ecological functions of the Beigang River corridor under increasingly extreme weather conditions.

The first phase of the project covers approximately 26 hectares of floodplain surrounding the historic Huwei Railway Bridge. The master plan integrates ecological conservation, recreation, environmental education, and sustainable landscape design through facilities such as riverside sports platforms, agricultural education areas, flood diversion channels, ecological grasslands, green terraces, and multifunctional open spaces. Diverse native vegetation is incorporated throughout the site to strengthen biodiversity and create a resilient waterfront ecosystem that harmonizes natural, ecological, and cultural values.

NFU will contribute interdisciplinary expertise from the Department of Agricultural Technology and the Office of Sustainability and Social Responsibility, supporting environmental education, agricultural education, sustainable governance, and community-based engagement. Through the integration of teaching, research, and local partnerships, the University promotes collaborative learning and practical sustainability actions while strengthening its contribution to regional sustainable development. Looking ahead, NFU will continue to collaborate with government agencies, industry partners, and local communities to establish the Beigang River waterfront as a model of climate resilience, ecological conservation, and sustainable riverfront development.

President Shinn-liang Chang of National Formosa University and Deputy Director-General Yi-Feng Wang of the Water Resources Agency Sign a Memorandum of Understanding to Advance Sustainable Development and Regional Collaboration.



Indoor Air Quality Management

National Formosa University (NFU) is committed to providing a healthy and comfortable indoor environment for students, faculty, staff, and visitors. In accordance with Taiwan's Indoor Air Quality Management Act, the University regularly monitors and manages indoor air quality in its library to ensure that air pollutants remain well below regulatory limits and do not pose risks to human health. Since the NFU Library was designated as a regulated indoor air quality venue in 2014, the University has continuously strengthened building management, ventilation facilities, operational procedures, and staff training to improve indoor environmental quality. As a result of these ongoing efforts, the Library successfully renewed its Excellent Indoor Air Quality Certification in 2025, with certification valid through December 16, 2028.

To improve indoor ventilation, a mechanical fresh-air exchange system has been installed throughout the library, from the basement level to the fifth floor. The system continuously introduces outdoor air, filters and purifies it, and supplies fresh air to indoor spaces, thereby improving air circulation and maintaining a healthy indoor environment.

Indoor air quality sensors are maintained and calibrated annually in accordance with regulatory requirements to ensure the accuracy and reliability of environmental monitoring.

Excellent Indoor Air Quality Self-Management Certification ►



Indoor Air Quality Monitoring Results (2025)

Monitoring Location	Parameter	Measured Value	Regulatory Standard	Result
5F Japanese Reading Area	Carbon Dioxide (CO ₂)	608 ppm	1,000 ppm	Compliant
	PM ₁₀	23 µg/m ³	75 µg/m ³	Compliant
	Formaldehyde	0.002 ppm	0.08 ppm	Compliant
	Bacteria	< 12 CFU/m ³	1,500 CFU/m ³	Compliant
4F Chinese Book Collection Area	Bacteria	< 12 CFU/m ³	1,500 CFU/m ³	Compliant
2F Reading Area	Bacteria	< 12 CFU/m ³	1,500 CFU/m ³	Compliant

▪ Note: Indoor air quality testing is conducted every three years in accordance with Taiwan's *Indoor Air Quality Management Act*. The 2025 inspection was performed by an accredited third-party laboratory on December 16–17, 2025, with the final report issued on December 30, 2025.

5-5 Climate Risk and Adaptation

SDGs | 4, 7, 9, 11, 13, 17

SDG Targets | 4.7, 7.2, 7.3, 9.4, 11.b, 13.1, 13.2, 13.3, 17.16

Greenhouse Gas Inventory

National Formosa University (NFU) has conducted annual greenhouse gas (GHG) inventories since 2021 to quantify emissions associated with campus operations and support the University's transition toward net-zero emissions. The inventory provides a scientific basis for identifying emission sources, formulating carbon reduction strategies, and monitoring progress toward climate goals. The 2025 inventory covers all NFU campuses, including the First Campus, Second Campus, Third Campus, High-Speed Rail (HSR) Campus, Sports Area, and Student Residence Area, with a total campus area of 372,745 m². The inventory includes the seven greenhouse gases specified under international reporting frameworks: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). Emissions were calculated using the applicable emission factors and Global Warming Potentials (GWPs) to determine carbon dioxide equivalent (CO₂e) emissions. The University's total greenhouse gas emissions in 2025 amounted to 10,825.35 tCO₂e. Category 2 emissions, primarily associated with purchased electricity, represented the largest share of total emissions (58.16%), followed by Category 1 direct emissions (21.03%) and Category 3 transportation-related emissions (17.30%). Category 4 emissions accounted for 3.51%, mainly from purchased water, paper consumption, and outsourced waste treatment. No emissions were reported under Categories 5 and 6 because the University does not engage in product sales or other applicable indirect emission sources.

Among direct emission sources, purchased electricity remained the University's most significant contributor to greenhouse gas emissions. Within Category 1, emissions were primarily associated with septic tanks and refrigerant leakage from air-conditioning systems, highlighting opportunities for future improvements in facility management, equipment replacement, and refrigerant control. The inventory results provide NFU with a comprehensive understanding of its emission profile and support the development of targeted carbon reduction measures, including energy conservation, renewable energy deployment, low-carbon campus operations, and continuous improvement toward the University's net-zero emission roadmap.

The inventory was prepared using emission factors published by Taiwan's Ministry of Environment The IPCC Sixth Assessment Report (AR6)

The Ministry of Economic Affairs' electricity emission factor

The Taiwan Carbon Footprint Information Platform. The 2025 electricity emission factor applied in the inventory was 0.467 kg CO₂e/kWh

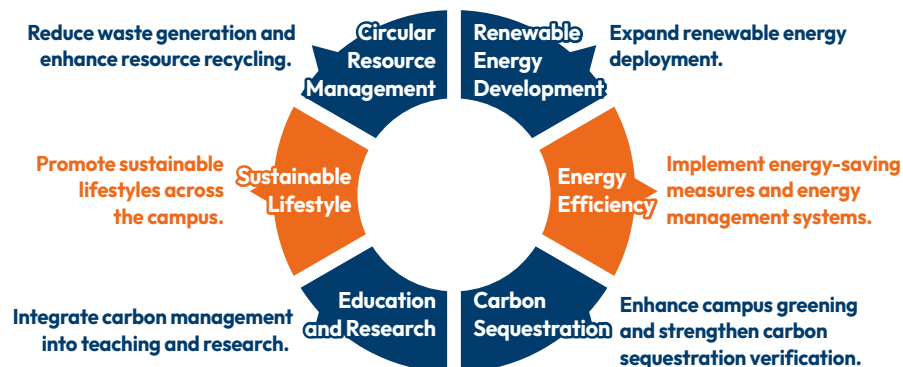


Greenhouse Gas Emissions by Category (2025)

Emission Source Classification		Emission Source	Emissions (ton CO ₂ e/yr)
Category 1 – Direct GHG Emissions and Removals	1.1 Stationary Combustion Sources	Emergency generators	1.6445
		Natural gas boilers	45.2179
	1.2 Mobile Combustion Sources	Lawn mowers and leaf blowers	2.6017
		Official vehicles	24.1196
	1.4 Fugitive Emission Sources	Septic tanks	1,126.4867
		Fire extinguishers	0.0135
		Refrigerants – refrigerators (including freezers)	4.0073
		Refrigerants – drinking water dispensers with cooling systems	7.2833
Category 2 – Indirect GHG Emissions from Imported Energy	2.1 Imported Electricity	Purchased electricity	6,295.8829
Category 3 – Indirect GHG Emissions from Transportation	3.3 Employee Commuting	Faculty, staff, and student commuting	1,823.9124
	3.5 Business Travel	Business travel	49.2077
Category 4 – Indirect GHG Emissions from Products Used by the Organization	4.1 Purchased Goods	Municipal water supply	64.0890
		Paper consumption	57.0980
	4.3 Waste Disposal	Outsourced waste treatment	258.2811
	4.4 Use of Assets	Insulating gas in electrical transformers	-
Total			10,825.3522

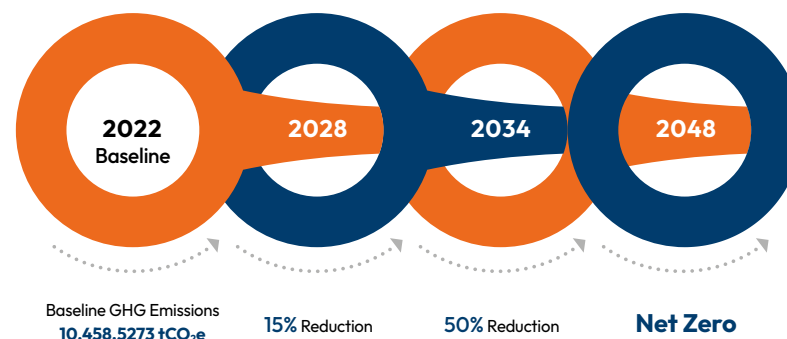
Net-Zero Transition Pathway

- 1. Climate Governance:** To accelerate the implementation of carbon reduction initiatives, NFU established the Campus Greenhouse Gas Inventory and Voluntary Reduction Committee in October 2022. The committee is responsible for coordinating greenhouse gas management, reviewing voluntary reduction initiatives, and formulating strategies that support carbon neutrality and sustainable campus development.
- 2. Greenhouse Gas Inventory and Verification:** In 2022, the University formally launched its campus-wide greenhouse gas inventory program under the authorization of the President, with implementation coordinated by the Vice President and jointly administered by the Office of Sustainability and Social Responsibility, the Office of General Affairs, and the Environmental Protection and Occupational Safety Center. Greenhouse gas inventories for 2021–2023 successfully obtained Reasonable Assurance through independent third-party verification, demonstrating the reliability and transparency of the University's greenhouse gas management system. NFU regards greenhouse gas inventories as the foundation of its carbon management strategy and will continue to improve emissions monitoring and reduction performance through regular verification and continuous improvement.
- 3. Capacity Building for Carbon Management:** Recognizing that the transition toward net zero depends on professional expertise, NFU actively develops carbon management capacity for both the University and local communities. For local young farmers in Yunlin County, the University organized training programs covering greenhouse gas inventory methodologies, carbon accounting, emissions data management, and reporting standards. A total of 33 participants obtained professional certification issued by the International Personnel Certification Association (IPCA). Within the University, carbon management training was also provided to faculty members and students. In 2025, 22 faculty members and students successfully obtained ISO 14064-1 Greenhouse Gas Inventory certification, strengthening institutional capacity for greenhouse gas accounting and climate governance.
- 4. Net-Zero Strategy:** NFU has established a long-term net-zero transition strategy centered on reducing greenhouse gas emissions while enhancing climate resilience. Key initiatives include: Promoting green building design and sustainable campus development; Expanding renewable energy through solar photovoltaic systems; Implementing campus-wide energy management systems; Replacing outdated facilities with high-efficiency equipment; Promoting green campus initiatives and sustainable lifestyles; Strengthening greenhouse gas management and carbon reduction practices; and Enhancing climate adaptation and environmental resilience. These initiatives support the University's long-term decarbonization roadmap while improving campus sustainability and operational efficiency. NFU remains committed to progressively reducing greenhouse gas emissions through continuous improvement, technological innovation, and cross-sector collaboration, with the goal of achieving net-zero emissions by 2048.



Net-Zero Declaration and Transition Roadmap

National Formosa University (NFU) officially announced its commitment to achieving net-zero emissions by 2048 during the opening ceremony of its First Sustainability Week on April 22, 2024 (Earth Day). At the event, President Hsin-Liang Chang signed the NFU 2048 Net-Zero Declaration, reaffirming the University's commitment to climate action and long-term sustainable development. Building upon its greenhouse gas inventory and climate governance framework, NFU has established a phased decarbonization roadmap using 2022 as the baseline year. The roadmap integrates six strategic pillars—Renewable Energy Development, Energy Efficiency, Carbon Sequestration, Circular Resource Management, Sustainable Lifestyle, and Education & Research—to systematically reduce greenhouse gas emissions while enhancing campus sustainability and climate resilience. NFU has established three major milestones for its net-zero transition: 2028: Reduce greenhouse gas emissions by 15% from the 2022 baseline. 2034: Achieve a 50% reduction in greenhouse gas emissions. 2048: Achieve net-zero greenhouse gas emissions. Through continuous investment in renewable energy, energy management, low-carbon infrastructure, green procurement, circular resource management, environmental education, and carbon governance, NFU will continue to accelerate its transition toward a resilient, low-carbon, and sustainable campus.



Climate Risk Assessment and Response

To assess the potential impacts of climate change on National Formosa University (NFU) and develop appropriate response measures, the University has adopted the Task Force on Climate-related Financial Disclosures (TCFD) framework as a reference to identify climate-related risks and opportunities that may affect sustainable development and operational objectives. High-priority issues are regularly evaluated and reviewed through a continuous improvement process. The University has established dedicated committees responsible for promoting sustainable development, greenhouse gas inventories, and voluntary carbon reduction initiatives. Significant climate-related issues may be submitted to the University Council for discussion and resolution.



1

Identification of Climate-Related Risks and Opportunities

Based on the TCFD framework, NFU conducted an assessment of 16 climate-related scenarios, covering transition risks (technology, policy and regulation, reputation, and market), physical risks (short-term), and opportunities (resilience, energy sources, and teaching and services). Following internal discussions, these scenarios were comprehensively evaluated to identify climate-related risks and opportunities, providing a basis for future adaptation and mitigation strategies.

2

Assessment of Climate-Related Risks and Opportunities

Representatives from relevant University units participated in the assessment by evaluating the 16 climate-related risk scenarios using two criteria: impact (rated on a scale of 1–3) and likelihood (rated on a scale of 1–3). The results were then plotted in a risk matrix to support the prioritization of climate-related risk and opportunity responses. Scenarios with both high impact (3) and high likelihood (3) were identified as the University's most significant climate-related risks or opportunities. Scenarios receiving a score of 3 for either impact or likelihood were also considered significant and therefore require appropriate response and management measures. Based on the results of the scenario analysis, the climate risk matrix was developed to support the University's climate risk management and decision-making processes.

Climate Risk Matrix

Likelihood	Impact		
	Low Impact (1)	Medium Impact (2)	High Impact (3)
High (3)	- Greenhouse gas emissions reporting (<i>Transition Risk – Policy and Regulation</i>) - Rising energy costs affecting the University's operating expenditures (<i>Transition Risk – Market</i>) - Utilizing national incentives for energy conservation and low-carbon initiatives (<i>Opportunity – Resilience</i>) - Promoting green procurement to reduce greenhouse gas emissions (<i>Opportunity – Energy Sources</i>) - Developing innovative climate change initiatives (<i>Opportunity – Teaching and Services</i>)	Implementation and performance of the University's climate change initiatives (<i>Opportunity – Teaching and Services</i>)	- Increased electricity consumption and cooling costs due to rising temperatures (<i>Transition Risk – Technology</i>) - National carbon reduction policy requirements (<i>Transition Risk – Policy and Regulation</i>) - Costs associated with carbon taxation (<i>Transition Risk – Policy and Regulation</i>) - Increasing stakeholder expectations and potential reputational impacts regarding the University's climate actions (<i>Transition Risk – Reputation</i>) - More frequent extreme weather events requiring campus adaptation measures (<i>Physical Risk – Short-term</i>)
Medium (2)	—	—	—
Low (1)	- Changes in rainfall patterns causing campus flooding and increasing recovery costs (<i>Physical Risk – Medium-term</i>) - Water resource shortages affecting campus operations (<i>Physical Risk – Medium-term</i>) - Expanding solar photovoltaic facilities to meet renewable energy demand (<i>Transition Risk – Technology</i>) - Developing environmental and climate change-related courses (<i>Opportunity – Teaching and Services</i>) - Promoting water conservation and improving water-use efficiency (<i>Opportunity – Water Efficiency</i>)	—	—

Response to Climate-Related Risks and Opportunities

Based on the assessment results described above, NFU identified significant climate-related risks and opportunities and developed the following response measures.

Category	Climate-related Issue	Description of Risk / Opportunity	Potential Financial Impact	Management Measures
Transition Risk	Technology	Increased energy demand due to rising temperatures	Higher electricity consumption and energy costs resulting from increased use of air conditioning	Increased operating costs and financial burden
				- Replace aging, energy-intensive air-conditioning units and lighting fixtures. - Set air-conditioning temperatures at 26–28°C and use automatic shutdown timers to prevent equipment from being left on when rooms are unoccupied.
	Policy and Regulation	National carbon reduction policy requirements	Implement voluntary greenhouse gas reduction projects individually or jointly, apply for emission reduction credits from the competent authority, and use them in accordance with regulations	Capital investment required to implement carbon reduction measures
		Carbon pricing (carbon tax/carbon fee)	- The University is currently not subject to Taiwan's carbon fee scheme. - More than 60% of the campus is covered by trees and green spaces, providing substantial carbon sequestration.	If carbon pricing becomes applicable, additional financial resources will be required.
		Greenhouse gas emissions reporting	Conduct campus greenhouse gas inventories.	Third-party verification of greenhouse gas inventory reports requires verification costs.
				Conduct annual campus greenhouse gas inventories beginning in 2021. Following verification, the results are publicly disclosed on the University website and in the Sustainability Report.
Market	Reputation	Increasing stakeholder concern regarding the University's climate actions and potential negative perceptions	- Increased operating costs. - Rising energy costs requiring additional energy-saving measures.	- Declining student enrollment. - Reduced revenue. - Increased financial costs.
		Rising energy prices affecting operating expenditures	Implement climate adaptation measures to fulfill the University's social responsibility.	Increased operating expenditures and financial burden.

Category	Climate-related Issue	Description of Risk / Opportunity	Potential Financial Impact	Management Measures
Physical Risk	Short-term	Increasing frequency and intensity of extreme weather events requiring adaptation measures	Implement adaptation measures to reduce climate impacts and fulfill institutional responsibilities.	Additional funding is required to implement adaptation measures.
	Resilience	Utilize government incentives for energy conservation and low-carbon initiatives	Develop concrete energy-saving and carbon reduction projects to obtain government incentives that support improvement projects.	Investment is required before incentive funding can be obtained.
Opportunity	Resource Sources	Promote green procurement to reduce greenhouse gas emissions	Green procurement supports environmental sustainability and demonstrates the University's commitment to social responsibility.	Continue and expand the procurement of environmentally preferable products.
	Teaching and Services	Develop innovative climate change projects	Enhance students' knowledge of energy, climate change, and disaster preparedness while promoting technological development.	Strengthen inter-agency collaboration on natural disaster response and increase opportunities for collaborative projects.
		Implementation of climate change initiatives	Strengthen teaching capacity and increase the development of climate-related research projects.	Encourage research units and students to engage in climate change-related issues and technologies through: (1) incentive and subsidy programs; and (2) automation and related courses to help improve industry efficiency.

Monitoring and Communication of Climate Actions

In response to the increasing challenges posed by compound natural disasters and shortages of water and energy resources, the University's operational and emergency response costs continue to rise. In addition to promoting energy conservation and carbon reduction, replacing energy-intensive equipment, and installing solar photovoltaic systems, NFU continuously reviews the effectiveness of its climate change management measures and evaluates their performance. Through the routine operations of various administrative and academic units, the University monitors disaster-related and energy-related risks and develops appropriate adaptation and mitigation strategies. At the same time, NFU communicates its climate change initiatives to students and stakeholders through academic courses, campus activities, and the Sustainability Report, strengthening awareness of energy conservation and carbon reduction while encouraging the implementation of sustainable practices.

5-6 Environmental Sustainability Highlights

SDGs | 4, 6, 7, 9, 13, 17

SDG Targets | 4.7, 6.4, 7.a, 9.4, 9.5, 13.3, 17.17

Campus Microalgae Carbon Sequestration Demonstration Site

To actively address the challenges of climate change and support Taiwan's 2050 Net-Zero Emissions Policy, National Formosa University (NFU) officially launched its Campus Microalgae Carbon Sequestration System during Sustainability Week 2025. The facility is the first campus-based demonstration site in the Yunlin–Chiayi region to integrate teaching, research, technology demonstration, and environmental education within a single carbon sequestration platform. By combining microalgae-based carbon capture technology with a rainwater harvesting and recycling system, the project demonstrates an innovative approach to carbon reduction, water conservation, and sustainability education.

The demonstration site incorporates a rainwater harvesting system that collects and reuses rainwater for microalgae cultivation. This approach reduces the University's reliance on municipal water supplies while promoting the efficient use of water resources. By recycling rainwater, the system lowers water consumption and operating costs and enhances campus resilience to climate change and water resource shortages.

Microalgae possess highly efficient photosynthetic and carbon fixation capabilities, enabling them to absorb atmospheric carbon dioxide and convert it into biomass. As a result, microalgae are widely recognized as one of the most promising nature-based carbon sequestration technologies. Leveraging its expertise in biotechnology, NFU has established photobioreactors equipped with intelligent monitoring systems to continuously monitor environmental conditions and microalgae growth, thereby improving carbon sequestration efficiency and supporting research and technological innovation in net-zero and green technologies.

The system was established with support from the Ministry of Education's Smart Climate-Friendly Campus Pilot Program, with a total investment exceeding NT\$2.4 million. During operation, the system captures atmospheric carbon dioxide through photosynthesis while contributing to water purification. It is capable of sequestering approximately 11 kg CO₂e annually and producing approximately 6 kg of microalgal biomass each year. The harvested biomass has potential applications in animal feed, circular agriculture, nutraceuticals, immunomodulatory products, biotechnology materials, cosmetic ingredients, and advanced pharmaceutical carriers, creating opportunities for high-value bio-based industries.

Beyond its research functions, the demonstration site serves as an interdisciplinary teaching platform that provides students with hands-on learning opportunities in carbon capture, the circular economy, biotechnology, and intelligent environmental monitoring. The facility is also open to community groups and primary and secondary schools for environmental education activities, helping to enhance public awareness of environmental protection and scientific literacy. Through industry-academia collaboration and technology transfer, NFU will continue promoting the industrial application of microalgae carbon sequestration technologies while supporting the development of the biotechnology, health food, and circular economy sectors in central Taiwan.

Looking ahead, NFU will continue to enhance its microalgae carbon sequestration technologies and intelligent management systems to strengthen campus carbon management and demonstration capabilities. Through the integration of teaching, research, community engagement, and industry collaboration, the University will continue fulfilling its social responsibility while advancing toward the vision of a smart climate-friendly campus and a net-zero sustainable campus.





06

Social Impact and University Social Responsibility (USR)

Management of Material Topics

Sustainability Dimension Social

Corresponding SDGs

Material Topic

University Social Responsibility (USR) Implementation

Corresponding GRI Standards

413



Policy and Commitment

On August 1, 2022, NFU established the Office of Sustainability and Social Responsibility as a first-level administrative unit, becoming the first university in Taiwan to create a dedicated office for sustainability and USR. The Office leads the University's implementation of the Sustainable Development Goals (SDGs), coordinates University Social Responsibility (USR) initiatives, and promotes sustainable development through cross-sector collaboration, stakeholder engagement, and community partnerships.

Objectives

Guided by the vision of "Co-Creation and Shared Presence", NFU aims to establish a Yunlin Action Think Tank that addresses local challenges through interdisciplinary collaboration, talent cultivation, and long-term partnerships with communities. The University seeks to strengthen regional sustainability, promote social innovation, and enhance local development through education, research, and practical engagement.

Grievance Mechanisms

- Office of Sustainability and Social Responsibility Website: <https://ossr.nfu.edu.tw>
- Email: nfuossr@nfu.edu.tw

Actions and Achievements

Established a comprehensive USR governance and support system, including 19 interdisciplinary faculty communities involving

91 faculty members,

to foster cross-disciplinary curriculum development and community-based practice.

Operated the SDGs Co-Learning Hub as a collaborative platform, hosting a cumulative

97 events

that engaged students, faculty, community organizations, and external partners.

Implemented a diverse portfolio of USR projects addressing sustainable agriculture, smart carbon reduction, cultural heritage preservation, multicultural inclusion, and regional revitalization, contributing to local sustainable development and social impact.

6-1 University Social Responsibility (USR) Strategy

SDGs | 4, 8, 11, 13

SDG Targets | 8.9, 11.3, 11.a

National Formosa University (NFU) is deeply rooted in Yunlin County and is committed to transforming its academic expertise and research capacity into practical solutions that address regional challenges and promote sustainable development. Guided by the United Nations Sustainable Development Goals (SDGs), the University has shifted its strategic focus from an activity-oriented approach to a systematic model for measuring social impact. Positioning itself as the Yunlin Action Think Tank, NFU seeks to establish a collaborative ecosystem in which the University and local communities co-create sustainable and mutually beneficial development.

1. Sustainable Governance and Management

To ensure the effective implementation and long-term impact of its USR strategy, NFU has established a comprehensive governance and institutional support system.

- **Leadership and governance structure.** In 2022, NFU established the Office of Sustainability and Social Responsibility as a first-level administrative unit responsible for coordinating University-wide sustainability and USR initiatives. The University also established the Sustainability and Social Responsibility Committee, chaired by the President, to formulate strategic objectives, oversee implementation, and review the University's Sustainability Report.
- **Institutional incentives and faculty engagement.** USR participation and social impact have been incorporated into the University's performance and incentive mechanisms. These include performance-based salary incentives, annual Outstanding USR Faculty Awards, and the inclusion of USR achievements in faculty evaluation and promotion processes. Faculty members undertaking administrative responsibilities related to USR are also eligible for reduced teaching loads. In addition, NFU has established 19 interdisciplinary faculty communities, involving 91 faculty members, to strengthen cross-disciplinary collaboration and expand participation in sustainability initiatives.
- **SDGs Co-Learning Hub.** NFU operates the SDGs Co-Learning Hub as a platform for interdisciplinary collaboration, knowledge exchange, stakeholder engagement, and partnership development, serving as a central hub for advancing sustainable development across the University and local communities.

2. Strategic Blueprint (Academic Years 2025–2031)

To integrate USR outcomes into institutional development, NFU has incorporated USR as a core component of its medium- and long-term development plan for Academic Years 2025–2031 (ROC Years 114–120). The strategic roadmap is implemented through three progressive phases.

- **Phase I (AY 2025–2027): Building a New University Ecosystem.** NFU encourages innovative teaching practices, promotes student-centered learning, and establishes institutional

mechanisms for advancing SDGs through cross-functional quality circles and participation in the THE Impact Rankings.

- **Phase II (AY 2028–2029): Mainstreaming SDGs into USR.** The University integrates SDGs into teaching and learning by promoting SDG-oriented curriculum development and strengthening students' sustainability competencies. Campus-wide Sustainability Week activities further encourage low-carbon lifestyles and green campus initiatives.
- **Phase III (AY 2030–2031): Sustaining USR Talent and Social Impact.** NFU will consolidate its talent cultivation model while fully implementing the Yunlin Action Think Tank. By establishing a comprehensive social impact evaluation framework, the University aims to institutionalize long-term collaboration among academia, communities, industry, and government, while aligning its practices with the global SDGs agenda and contributing to resilient and sustainable communities.

3. Impact Measurement through Social Return on Investment (SROI)

Academic Year 2025 marks the first year in which NFU has adopted the Social Return on Investment (SROI) framework, representing a significant milestone in the University's transition toward evidence-based social impact management.

- **Systematic social value assessment.** Moving beyond conventional output indicators, NFU evaluates the long-term outcomes experienced by key stakeholders—including students, farmers, community residents, and partner organizations. The SROI methodology incorporates internationally recognized principles, including attribution, deadweight, and drop-off analyses, to estimate the social value generated by USR initiatives more accurately.
- **Data-driven decision-making.** NFU is establishing a standardized SROI assessment framework that systematically feeds evaluation results into institutional planning and decision-making. Social impact data serve not only as key disclosures in the University's Annual Report and Sustainability Report but also as evidence for strategic planning, resource allocation, continuous improvement, and the rolling revision of the University's medium- and long-term development plan. Through this evidence-based management approach, NFU aims to maximize both institutional effectiveness and long-term social value.



USR Achievements
Over the Years



USR Highlights in
Pictures

Activity Category	Events	Faculty Participants	Student Participants	Project Assistants	Community Partners
Capacity-Building Activities	69	268	615	146	441
Other Activities	149	355	6,377	422	1,250
Community-Based Activities	183	373	2,879	284	3,563
Meetings	122	526	329	220	443
Joint Achievement Exhibitions	15	278	1,399	182	1,289
Total		1,800	11,599	1,254	6,986

6-2 USR Achievements and Impact

1. Awards and Recognition

- (1) Fifth Sustainability Living Lab Awards (2025): Two Merit Awards.
- (2) 15th Rural-Young Farmers Competition (2025): Recipient of the Residency Grant, Community Excellence Award, and Rural Rising Star Award.
- (3) Taipei Golden Eagle Microfilm Festival (2025): Three Bronze Awards for USR-related educational and community engagement projects.
- (4) Taiwan and Asia-Pacific Sustainability Action Awards (2025): A total of 13 awards, including 3 Gold, 3 Silver, and 7 Bronze Awards.
- (5) Taiwan Sustainability University Awards (2025): Recognition as an Outstanding Sustainability University and recipient of the Bronze Award for the University's Sustainability Report.
- (6) IASE Education Impact Awards (2025): First Prize in the Teaching Innovation category.
- (7) Outstanding USR Faculty Awards (2025): Five faculty members were recognized for exceptional contributions to USR implementation.

2. Interdisciplinary Faculty Communities

NFU promotes continuous faculty professional development through interdisciplinary learning communities that encourage teaching innovation, knowledge sharing, and collaborative engagement with local communities. These communities focus on topics including USR field-based practice, SDG-integrated curriculum design, innovative teaching materials, and cross-disciplinary collaboration, thereby enhancing teaching quality and student learning outcomes. In 2025, the University supported 19 interdisciplinary faculty communities, engaging 91 faculty members from both within and outside the University. These communities generated diverse teaching innovations and practical outcomes while strengthening the University's capacity for sustainable education and community engagement.

3. Institutional Support for USR

- (1) Performance-based incentives: At least 10% of the University's annual faculty incentive funding is allocated to social responsibility achievements.
- (2) Outstanding USR Faculty Awards: Introduced in 2025 to recognize five faculty members for exemplary contributions to USR.
- (3) Career development and promotion: USR performance is incorporated into faculty evaluation and promotion criteria, while professional development opportunities—including Sustainability Manager certification and project staff career advancement—are actively supported.
- (4) Teaching workload reduction: Faculty members undertaking administrative responsibilities related to USR are eligible for reduced teaching loads.
- (5) SDGs Co-Learning Hub: The University operates the SDGs Co-Learning Hub as a platform for collaboration, knowledge exchange, and dissemination of USR outcomes. During 2025, the Hub hosted 97 activities involving faculty, students, community organizations, and external partners.

4. Second Sustainability Week: "Net Zero in Action at NFU"

In response to its commitment to achieving campus carbon neutrality by 2048, NFU organized the Second Sustainability Week in June 2025 under the theme "Net Zero in Action at NFU." The event promoted sustainability awareness through five key themes: low-carbon lifestyles, community engagement, environmental sustainability, circular economy, and green innovation.

A major milestone of the event was the inauguration of the first microalgae carbon capture system among universities and colleges in the Yunlin–Chiayi region, established with support from Taiwan's Ministry of Education. The system serves as both a practical carbon reduction initiative and an environmental education platform, supporting the University's carbon neutrality goals while providing a demonstration site for regional sustainability education.

Sustainability Week also showcased achievements in circular economy practices through sustainability exhibitions, a second-hand toy market, and interactive environmental education activities that encouraged resource reuse and low-carbon lifestyles.

In addition, the event brought together green industry partners and community organizations to present sustainable products, low-carbon floral innovations, and interdisciplinary learning opportunities, strengthening collaboration among academia, industry, and local communities while enhancing students' practical competencies in sustainability and carbon management.

USR Project: Co-learning for Agricultural Revitalization and Intergenerational Sustainability—Co-creating Shared Value from Green Heart to Green Port

Project Category: Distinctive Sustainability Project

Related SDGs:



Zero Hunger



Quality Education



Decent Work and Economic Growth



Responsible Consumption and Production



Climate Action



Life on Land

Project Overview

Aligned with the University's strategic priority of industrial collaboration and economic sustainability, this project addresses key challenges facing Yunlin's agricultural sector, including population aging, labor shortages, and climate change. Guided by the vision of "Retaining, Returning, and Attracting Talent to Rural Communities; Co-learning, Co-creation, and Shared Prosperity," the project integrates resources from universities, government agencies, industries, and local communities to promote smart agriculture, green farming practices, and agricultural ESG management. Through these collaborative efforts, the project has established a sustainable agricultural ecosystem connecting the "Green Heart" and "Green Port" regions of Yunlin.

Key Achievements and Social Impact

1. Promoting Agricultural ESG and Smart Farming

The project supports the transformation of local farms and agricultural enterprises toward sustainable and resilient business models.

- Smart farming technologies were introduced to Hexin Vegetable Farm, replacing traditional weed-burning practices with an automated precision laser weeding system integrated with unmanned equipment and sensor-based management. The innovation improves operational safety while reducing labor requirements and environmental impacts.
- The project assisted the Precision Agriculture Production Cooperative in implementing agricultural ESG practices, brand development, and standardized production systems. These efforts enabled the cooperative to secure industry collaboration projects through the Organic Agriculture Promotion Center and establish diversified and sustainable business models.
- Technical and business transformation support was also provided to Xiang Fa Orchid Garden, facilitating the transition from traditional cultivation to modern greenhouse management through digital monitoring, data-driven decision-making, and business innovation.

2. Expanding Organic Agriculture and Biodiversity Conservation

In support of the 30×30 Global Biodiversity Framework, the project has worked extensively with the Maguang Organic Farming Cluster, promoting approximately 200 hectares of organic cultivation. The project improved irrigation and water resource management, including the enhancement of the Longyan Branch Reservoir, thereby strengthening local aquatic ecosystems. Faculty members and students have conducted long-term ecological surveys while assisting farmers with organic cultivation practices and community participation. These efforts have enhanced ecological resilience, promoted sustainable agricultural production, and strengthened biodiversity conservation.

3. Cultivating Future Agricultural Leaders (TNSAFE)

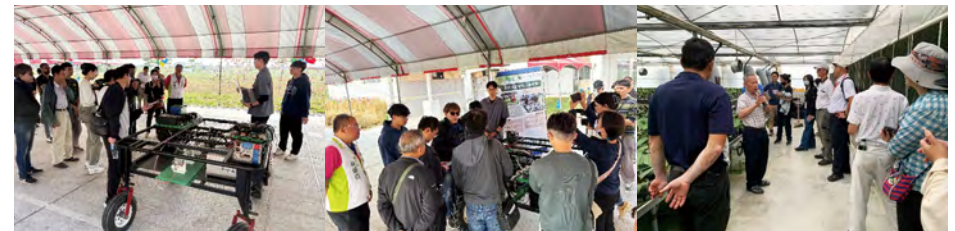
- The project emphasizes experiential learning by engaging students in real-world agricultural settings through the Agricultural Revitalization and Smart Innovation Program. Students participate in smart sensing system development, unmanned aerial vehicle (UAV) applications, and field-based agricultural practices, enabling them to strengthen professional competencies while developing a deeper understanding of sustainable agriculture and rural revitalization.

- To further expand its impact, NFU is also promoting the establishment of the Taiwan Network for Sustainable Agriculture, Food and Environment (TNSAFE), a national collaborative platform that brings together universities participating in USR initiatives. The network facilitates knowledge sharing, interdisciplinary collaboration, community co-governance, and the dissemination of sustainable agriculture education throughout Taiwan.

4. Intergenerational Learning and Community Revitalization

- In Fenggang Village, Dapi Township—an aging rural community with fewer than 700 residents—the project revitalized public spaces by organizing horticultural therapy programs and community forest experiences under the theme "My Forest, My Life." Students designed educational activities and environmental games using recycled materials, encouraging older adults to participate in outdoor learning while fostering stronger community connections and social inclusion.
- In addition, the project collaborated with Renhe Elementary School to implement food and agricultural education programs that strengthen children's appreciation of local agricultural products. Community volunteers guided students in preparing innovative rice-based foods using locally grown ingredients, while university students and members of agricultural extension clubs introduced plant science and transplanted flowers cultivated on campus into the school's gardens. These experiential activities promoted agricultural literacy, environmental awareness, and intergenerational knowledge exchange.

① Promoting Agricultural ESG and Smart Farming



▲ Students demonstrating an AI-powered image recognition system for precision laser weeding.

▲ Professor Yu-Sung Liu presenting the research outcomes of the precision laser weeding system.

▲ Owner of Xiang Fa Orchid Garden sharing experiences in orchid cultivation and business management.



▲ Faculty and students from Tzu Chi University visiting Xiang Fa Orchid Garden.



▲ The project team assisting Xiang Fa Orchid Garden in establishing a smart greenhouse with environmental control systems.

2 Expanding Organic Agriculture and Biodiversity Conservation



▲ Students participating in the Paddy Field Ecology Summer Camp.



▲ International scholars in agriculture visiting the organic farming demonstration site.

▼ Birds inhabiting organically managed farmlands, including the Red-wattled Lapwing, reflecting improved farmland biodiversity.



▼ Farmland ecosystem supporting diverse wildlife and biodiversity conservation.



3 Cultivating Interdisciplinary Talent and Establishing the TNSAFE Network (TNSAFE)



▲ Project Director Shou-Ku Tai introducing the Taiwan Network for Sustainable Agriculture, Food and Environment (TNSAFE).



▲ Dr. Ching-Peng Cheng presenting the planning and development of the agricultural demonstration site.

4 Intergenerational Learning and Community Revitalization



▲ Elementary school students participating in a rice culture education program at Renhe Elementary School.

▼ Students experiencing hands-on rice culture education activities.



▲ Elementary school students, community residents, and university students participating in community learning activities.

▼ University students designing and facilitating interactive educational activities for community participants.



USR Project: Carbon Blossoms—Sustainable Transformation of Yunlin's Floriculture Industry and Green Talent Development

Project Category: Emerging University Distinctive Project

Related SDGs:



Quality
Education



Responsible
Consumption
and Production



Climate
Action



Life on Land

Project Overview

This project promotes the sustainable transformation of Yunlin's floriculture industry by integrating environmental monitoring, carbon management, and sustainability education. It supports flower growers in understanding greenhouse energy consumption and identifying carbon reduction opportunities through data-driven environmental management. At the same time, the project cultivates sustainability competencies among university students and young farmers through ISO carbon inventory training, field-based learning, and interdisciplinary collaboration. The initiative also extends sustainability education to elementary schools and local communities, establishing an integrated model that combines agricultural sustainability, talent development, and community engagement.

Key Achievements and Social Impact

1. Advancing Smart Carbon Management for Sustainable Agriculture

The project supports the floriculture industry's transition toward climate resilience and net-zero development by strengthening environmental monitoring and professional capacity.

- Smart environmental monitoring: Interdisciplinary teams introduced greenhouse environmental sensors and data monitoring systems to help flower growers identify energy consumption patterns and environmental conditions, providing a scientific foundation for carbon management and operational improvements.
- Carbon management capacity building: Sustainability workshops and ISO 14064-1 training programs equipped 33 young farmers with greenhouse gas inventory knowledge and practical carbon management skills, strengthening the sector's readiness for sustainable agriculture and low-carbon transformation.

2. Promoting Circular Economy through Agricultural Waste Upcycling

The project transforms agricultural residues—including flowers, petals, branches, and plant materials—into valuable educational and creative resources, demonstrating circular economy principles.

- Intergenerational community engagement: Community workshops encouraged older adults to transform agricultural waste into practical handicrafts and creative products, fostering environmental awareness and lifelong learning.
- Strengthening community participation: Collaborative activities involving university students and senior residents promoted dialogue, mutual learning, and community cohesion while encouraging residents to participate actively in environmental conservation and sustainable lifestyles.

3. Expanding Climate Education and Ecological Restoration

- Climate education board game: The project developed the educational board game "Sustainability Explorer," which has been adopted not only by elementary schools in Yunlin but also by rural schools in Hualien, Nantou, and Tainan, providing a scalable and engaging approach to climate education.

- Campus habitat restoration: Climate education camps engaged elementary school students in establishing butterfly and pollinator habitats by planting nectar-producing species. Through ecological observation and hands-on learning, students gained a deeper understanding of biodiversity, pollinator conservation, and ecosystem sustainability.

4. Cultivating Green Talent for Sustainable Careers

The project bridges classroom learning and real-world practice by providing students with opportunities to participate in authentic agricultural and environmental projects.

- Students engaged in greenhouse environmental monitoring, field investigations, habitat restoration, and sustainability education activities, enabling them to understand the practical application of environmental monitoring and carbon management in sustainable agriculture.
- Through carbon inventory training, ISO certification courses, and field-based learning, students developed competencies in carbon management, data analysis, interdisciplinary collaboration, and stakeholder communication, strengthening their employability in sustainability-related professions.



▲ Elementary school students participating in habitat restoration activities.



▲ Students participating in a course on climate change and the circular economy.



▲ Community members participating in a green craft workshop using recycled agricultural materials.



▲ Installation of environmental sensors in a smart orchid greenhouse.



▼ Participants attending a workshop on climate adaptation and sustainable agriculture.



▲ Elementary school students participating in a climate education camp.



▼ Installation of an energy-efficient dehumidification system in a lisianthus greenhouse.



▲ Students participating in the "Sustainability Explorer" educational board game on climate and sustainability.



Six Key Values of the Co-Learning Model



Mutual Growth

Students and young farmers complement each other, creating a co-learning model that fosters mutual growth.



Sustainable Management

Young farmers develop sustainable management capabilities through collaboration.



Knowledge Application

Field-based collaboration effectively bridges the gap between knowledge and practical application.



Professional Competence

Students develop professional competencies through participation, preparing them to become sustainability professionals ready for industry.



Interdisciplinary Collaboration

Interdisciplinary collaboration enables both students and young farmers to engage with diverse professional perspectives.



Foundation for Institutionalization

The outcomes of co-learning provide a foundation for institutionalization.

USR Project: Smart Carbon Reduction and Water Conservation for Integrated Sustainable Development in Shuijing Village

Project Category: Emerging University Distinctive Project

Related SDGs:



Quality Education



Clean Water and Sanitation



Responsible Consumption and Production



Partnerships for the Goals

Project Overview

This project addresses the dual challenges of climate change and rural marginalization by transforming Shuijing Village in Kouhu Township, Yunlin County, into a living laboratory for community resilience and sustainable development. Centered on the concept of resilient transformation, the project integrates Artificial Intelligence of Things (AIoT) technologies with community-based innovation to establish an integrated model of smart production, circular ecology, and community well-being.

Through the combined application of technological innovation and cultural revitalization, the project develops a University Social Responsibility (USR) model that enhances economic vitality, environmental sustainability, and cultural heritage while strengthening the resilience of rural communities.

Key Achievements and Social Impact

1. Advancing Smart Aquaculture through AIoT Technologies

The project supports the modernization of traditional aquaculture by introducing AIoT technologies that improve production efficiency while reducing environmental impacts.

- Smart aquaculture monitoring: Three AIoT monitoring systems were installed in aquaculture ponds in Shuijing Village, enabling real-time environmental monitoring and precision management while reducing labor requirements and improving operational efficiency.
- Energy conservation and carbon reduction: The AIoT system achieved approximately 40% energy savings and 5% carbon emission reductions, supporting the transition from labor-intensive aquaculture to digitally managed, low-carbon production systems.

2. Promoting Circular Economy through Agricultural Waste Upcycling

The project applies circular economy principles by transforming agricultural residues into value-added products with environmental, cultural, and economic benefits.

- Agricultural by-products, including garlic husks and corn leaves, were redesigned into handcrafted products known as "Everlasting Garlic Flowers." By combining traditional craftsmanship with creative design, the project reduces agricultural waste while creating new economic opportunities for local communities and promoting sustainable resource utilization.

3. Strengthening Community Well-being through Cultural Revitalization

- Revitalizing local cultural heritage: The project documented and creatively reinterpreted the village's cultural heritage, including the local legends of the White Horse, Turtle, and Marriage Flower, through digital media, LED installations, and handcrafted artworks. These initiatives transformed local history into engaging cultural experiences while strengthening residents' sense of identity and place.
- Building sustainable local economies: A community-based marketing platform was established to connect local farmers, fishers, and small businesses. A community benefit-sharing mechanism was also introduced to generate sustainable income and enhance the long-term financial resilience of local organizations.

4. Cultivating T-shaped Talent through Community-Based Learning

- The project bridges classroom learning with real-world practice by engaging students in interdisciplinary problem-solving within rural communities. Students participated in the design and implementation of AIoT aquaculture monitoring systems while collaborating directly with local stakeholders. Through field-based learning, they strengthened competencies in artificial intelligence, programming, interdisciplinary collaboration, and stakeholder communication, while developing empathy, social responsibility, and practical problem-solving skills through meaningful community engagement.



Participants exploring the community on the "Walking with You" guided tour.



▲ Showcasing the Shuijing Village USR project at a science exhibition.
▼ The Shang Hu Yun team receiving a Merit Award at the Sustainability Living Lab Awards.



▲ The SIG project director discussing smart aquaculture development with local aquaculture operators.
▼ Local aquaculture operators and university faculty participating in a practical knowledge exchange in Shuijing Village.



▲ Participants creating tomato-themed handicrafts during a community workshop.
▼ Students presenting proposals to improve the ecological sustainability of the local community during a training camp.



▲ A community art wall celebrating local fishery culture, where sustainability is expressed through everyday life and cultural heritage.

▲ Participants exploring Shuijing Village through the "Three Treasures of Shuijing" cultural heritage tour.

▲ Students learning from local aquaculture operators about AIoT-based smart aquaculture management.

USR Project: Neo Sugar, Reviving Culture: Eco-museum Action for Huwei Sugar Town

Project Category: Emerging University Distinctive Project

Related SDGs:



Good Health and Well-being



Quality Education



Sustainable Cities and Communities



Partnerships for the Goals

Project Overview

This project brings together faculty members from the Department of Biotechnology, Department of Multimedia Design, General Education Center, and Office of Sustainability and Social Responsibility to revitalize the cultural heritage of Huwei Sugar Town through the Eco-museum concept. By transforming the historic sugar district into a living cultural landscape, the project promotes the preservation, interpretation, and sustainable utilization of industrial heritage. Built around the dual strategies of co-developing healthy sugar technologies and co-creating the cultural landscape of Huwei Sugar Town, the project integrates interdisciplinary teaching, community engagement, and technological innovation to balance cultural preservation, industrial transformation, and local economic development while cultivating a new generation of cultural practitioners.

Key Achievements and Social Impact

1. Advancing Healthy Sugar Innovation through Interdisciplinary Research

The project integrates biotechnology and food science to enhance the value of locally produced sugarcane while promoting healthier and more sustainable sugar-related products.

- High-pressure processing (HPP) technology: The project successfully applied high-pressure processing technology to extend the refrigerated shelf life of fresh sugarcane juice to 21 days while preserving its natural flavor and nutritional quality.
- Healthy products and local industry collaboration: Research on the antioxidant polyphenol and flavonoid content of different sugarcane varieties supported the development of healthy beverages and innovative local products in collaboration with community businesses, creating new economic opportunities for the regional sugar industry.

2. Co-creating the Cultural Landscape through Heritage Interpretation

The project transforms Huwei's rich sugar heritage into accessible educational resources that foster cultural identity and community engagement.

- Development of educational resources: Through field investigations and community-based research, students developed five locally themed picture books and nine educational board games that creatively interpret the history and culture of Huwei Sugar Town.
- Promoting heritage education: These educational materials were introduced into local elementary schools, enabling students to learn about the history, culture, and significance of the sugar industry through interactive and game-based learning experiences.

3. Empowering Heritage Interpretation through Digital Innovation

The project integrates artificial intelligence with cultural heritage interpretation to address the shortage of tour guides in heritage sites while enhancing visitor experiences.

- Development of the "Huke Classmate" AI chatbot: Through interdisciplinary courses, students developed an AI-powered cultural interpretation system by incorporating field research and historical materials into an intelligent conversational platform. The chatbot enables visitors to access historical knowledge and cultural stories through interactive digital experiences while demonstrating how AI can support heritage preservation and public engagement.

4. Strengthening Community Partnerships and Youth Empowerment

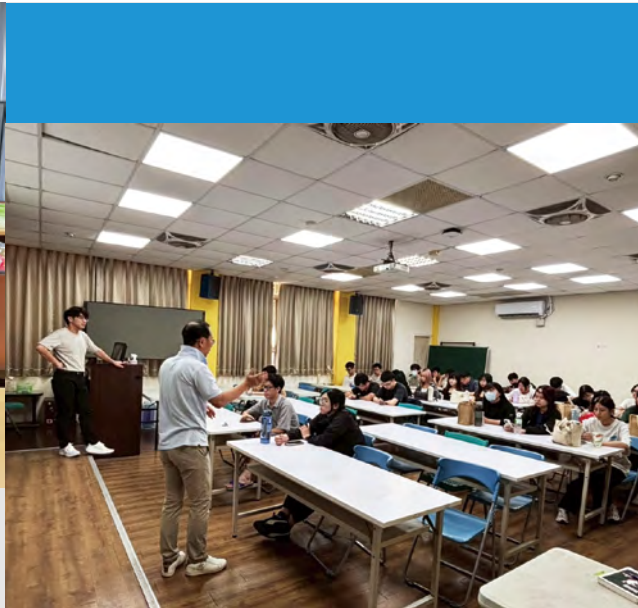
The project cultivates young cultural practitioners while building long-term collaborative networks for sustainable community development.

- Developing future cultural ambassadors: More than 1,300 students participated in the project, transforming from classroom learners into cultural interpreters equipped with competencies in project planning, digital technologies, and heritage interpretation.
- Building collaborative partnerships: The project established the Sugar Town USR Teaching Community, connecting local organizations, nonprofit associations, community groups, and industry partners to promote long-term collaboration, resource sharing, and the sustainable development of Huwei Sugar Town.



▲ Engaging with stakeholders at Anqing Elementary School.

▼ Engaging with stakeholders from the Taiwan Public Welfare CEO Association.



▲ Students participating in a community learning gathering.

◀ Faculty members participating in interdisciplinary co-teaching.

◀ Faculty members participating in the USR teaching community of practice.

▼ Developing innovative healthy sugar products through interdisciplinary research.



Project
Title

USR Hub: Bringing University Innovation to Rural Communities—Revitalizing the Dounan Warehouse Cluster

Related
SDGsQuality
EducationDecent Work
and Economic
GrowthProject
Overview

Centered on the Talimu Cultural Park in Dounan Township, this project promotes site revitalization and cultural heritage preservation. Through three strategic approaches—technology outreach, cultural interpretation, and faculty capacity building—the project establishes a collaborative ecosystem that benefits both the university and local communities.

In the area of technology, the project provides digital literacy programs for older adults to bridge the digital divide and strengthen community identity with the local cultural park. In the area of culture, faculty members and students conduct field investigations at local creative sites, such as Shih Hua Ya Xu Studio and Watermelon Cactus, transforming botanical art and local cultural symbols into exhibition materials that enrich cultural education. In the area of education, faculty development activities integrate the principles of University Social Responsibility (USR) into museum management, promoting knowledge co-creation and innovative exhibition planning.

The project enhances students' practical and storytelling competencies while strengthening partnerships among the university, local artists, and cultural institutions. These collaborative efforts inject new momentum into the revitalization of the Dounan Warehouse Cluster and contribute to the sustainable development of local cultural heritage.

Key Achievements

Through an interdisciplinary collaboration model, the project has achieved significant outcomes in technology application, artistic interpretation, and professional capacity building:

1. Digital Empowerment and Intergenerational Inclusion

The project organized the "Technology for Communities" outreach program, offering smartphone application and multimedia creation courses tailored for middle-aged and older adults. NFU students served as teaching assistants, providing technical support and personalized guidance that reduced participants' anxiety toward digital technologies. Through hands-on activities, residents documented everyday life and local stories, transforming digital technology into a tool for community expression while strengthening their connection to the Talimu Cultural Park.

2. Artistic Interpretation of Local Cultural Symbols

The project implemented two in-depth Cultural Documentation Initiatives to enrich exhibition narratives.

Botanical Art Documentation: Faculty members and students visited Shih Hua Ya Xu Studio to explore artistic creation using plant leaves as the primary medium. The project translated artistic techniques into accessible exhibition content, helping visitors better understand the environmental and cultural significance of botanical art.

Field-Based Cultural Research: Students explored the creative work of the illustrator Watermelon Cactus, learning how local culture can be transformed into visual storytelling and character design. Through field investigations and narrative development, students reinterpreted local cultural symbols into contemporary educational resources.

3. Strengthening Museum Capacity through USR

Faculty development activities integrated the core values of University Social Responsibility into museum operations. Faculty members guided museum professionals in site analysis and collaborative planning, creating a platform for interdisciplinary exchange while supporting the development of practical exhibition initiatives. This collaborative learning model strengthened museum professionals' cultural awareness and established a long-term knowledge co-creation partnership between the university and local cultural institutions, laying a foundation for the sustainable development of Dounan's cultural industry.

Photos of Achievements



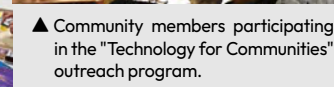
▲ Field-based cultural documentation for exhibition development.



▼ Faculty members and students observing botanical art practices at Shih Hua Ya Xu Studio.



▼ Faculty members participating in a collaborative professional development workshop.



▲ Community members participating in the "Technology for Communities" outreach program.



Project
TitleMeta-Toy: Yunlin Empathy
Education Blockchain Co-
creation ProjectRelated
SDGsGood
Health and
Well-beingQuality
EducationSustainable
Cities and
CommunitiesProject
Overview

This project was implemented at the Agricultural Expo Eco-Park and connected with major local events such as the Yunlin Children's Carnival to transform ecological and environmental issues into engaging and interactive learning experiences.

The project was developed through three strategic approaches. First, environmental education was integrated into activities by utilizing the park's outdoor environment to enhance participants' environmental awareness. Second, artistic creativity and hands-on learning were combined through woodcraft painting and recycled-material DIY workshops to stimulate creativity and a sense of accomplishment. Third, cross-institutional collaboration mobilized faculty members, students, and project assistants from both within and outside the university to establish an efficient implementation network. Through these initiatives, the project transformed conventional environmental education into an interactive model of empathy-based learning, strengthening connections between local culture and educational resources while promoting the Sustainable Development Goals through experiential learning.

Key Achievements

Through diverse interactive activities and connections with local festivals, the project has achieved the following significant outcomes in educational outreach and community engagement:

1. Expanding Educational Impact through Community Festivals

The project partnered with the 2025 Yunlin Children's Carnival and the 2025 Yunlin Children's Festival to establish the Rainbow Miracle Experience Zone at the Huwei Agricultural Expo Eco-Park. Its vibrant and interactive environment attracted numerous families, transforming recreational festival activities into meaningful educational experiences. Collaboration with large-scale public events increased the project's visibility and broadened access to educational resources for local communities.

2. Promoting Woodcraft Heritage and Environmental Sustainability

The project partnered with the 2025 Yunlin Children's Carnival and the 2025 Yunlin Children's Festival to establish the Rainbow Miracle Experience Zone at the Huwei Agricultural Expo Eco-Park. Its vibrant and interactive environment attracted numerous families, transforming recreational festival activities into meaningful educational experiences. Collaboration with large-scale public events increased the project's visibility and broadened access to educational resources for local communities.

3. Promoting Family Learning and Cross-disciplinary Collaboration

The activities were designed to engage participants of all ages, encouraging family interaction through enjoyable educational experiences. An international handicraft DIY zone further broadened participants' global perspectives while supporting local education. The project also demonstrated strong organizational capacity by integrating faculty members, students, and project assistants from multiple institutions, ensuring high-quality program implementation and providing a safe, collaborative learning environment under rigorous health and safety standards.

Photos of Achievements



Children participating in the Wooden Toy DIY activity at the Rainbow Miracle Experience Zone.



Children creating handcrafted wooden toys during the DIY workshop.

Project
TitleCultural Regeneration
Initiative for New Immigrant
Women in YunlinRelated
SDGsQuality
EducationReduced
InequalitiesPartnerships
for the GoalsProject
Overview

This project promotes cultural regeneration and educational practice to foster an inclusive and respectful multicultural society. Centered on new immigrant women as cultural ambassadors, the project transforms the cultural heritage of their home countries—including Vietnam, Indonesia, and Cambodia—into valuable educational resources through university general education courses and community workshops that promote immersive cultural learning.

The project is implemented through three approaches. First, curriculum integration invites new immigrant instructors to share the politics, history, economy, and food cultures of their home countries in university classrooms, broadening students' global perspectives. Second, cultural interpretation through arts and cuisine enables participants to experience cultural traditions through activities such as Batik purse making and traditional cooking workshops. Third, social network building is achieved through the Yunlin New Partnership Vision Exchange Forum, which connects NFU's USR projects with local community organizations and new immigrant associations to promote understanding and respect for multicultural communities. The project empowers new immigrant women as cultural educators while strengthening cultural awareness and social inclusion within local communities.

Key Achievements

Through firsthand cultural engagement and cross-sector collaboration, the project has achieved several notable outcomes in the field of multicultural education:

1. Empowering New Immigrant Instructors through Immersive Cultural Education

The project invited new immigrant educators from Vietnam, Indonesia, and other countries to serve as instructors. Rather than providing introductory cultural presentations, the courses incorporated maps, authentic cultural artifacts, food ingredients, and multimedia materials in participants' native languages to create immersive cultural learning experiences. This approach enabled students to understand diverse cultures through authentic everyday contexts while enhancing intercultural understanding and cultural inclusion.

2. Integrating Traditional Arts and Culinary Culture into Experiential Learning

The project combined traditional crafts and culinary practices with local community education. Activities such as the Indonesian Batik purse-making workshop at Jianguo Military Dependents' Village introduced participants to Batik patterns and craftsmanship through hands-on experiences. Culinary workshops featuring Vietnamese shrimp cakes, Vietnamese coffee, and other traditional foods enabled participants to experience cultural knowledge through cooking and sensory engagement, making multicultural learning more interactive and meaningful.

3. Building Cross-sector Partnerships for Community Inclusion

Through the Vision Exchange Forum and the New Immigrant Exchange Forum, the project connected professional organizations and community groups from Yunlin and neighboring Changhua County. These collaborative platforms promoted knowledge co-creation while strengthening partnerships between NFU and local communities such as Boziliao and Jianguo Military Dependents' Village. The project fostered intercultural dialogue, strengthened community identity and social cohesion, and advanced the vision of an inclusive and multicultural society.

Photos of Achievements



▲ Participants experiencing Indonesian Batik craftsmanship through a purse-making workshop at Jianguo Military Dependents' Village.



▼ Participants preparing traditional Vietnamese shrimp cakes during a cultural culinary workshop.



▲ Participants learning about Indonesian spices and the preparation of traditional jamu herbal beverages.



▼ A Cambodian Culture Week introducing the history and traditions of Cambodia.

Project
Title**Establishing a Sustainable
Soil Environment for
Environmentally Friendly
Farming Systems**Related
SDGsQuality
EducationResponsible
Consumption
and ProductionProject
Overview

This project integrates precision scientific analysis into local agriculture to establish a professional bridge between the university, farmland, and food safety standards. Focusing on soil health and agricultural product safety, the project combines laboratory-based technical training with field practice to support the transition toward more scientific and environmentally friendly farming systems.

At the technical level, the project established a comprehensive soil monitoring process, including field site selection, periodic soil sampling, and sample pretreatment, enabling students to apply classroom knowledge in real agricultural settings while understanding soil dynamics. At the analytical level, the project connects academic research with industry practice by training students to analyze crop nutritional components, such as vitamin C and nitrate, as well as food safety indicators, including heavy metals and pesticide residues, in accordance with national testing standards.

Through project-based learning and advanced instrumental analysis courses, the project cultivates agricultural professionals with expertise in analytical instrumentation while strengthening local farmers' understanding of soil fertility and crop quality through data analysis and knowledge sharing. These efforts demonstrate the university's commitment to sustainable agriculture and University Social Responsibility.

Key Achievements

Through professional field practice and advanced laboratory techniques, the project has achieved the following notable outcomes in agricultural science capacity building and food safety assurance:

1. Establishing a Comprehensive Soil Monitoring System

The project developed a standardized workflow for soil sampling and laboratory analysis. Students participated in every stage of the process, from field sampling and sample pretreatment to analyses of soil pH, electrical conductivity, nutrient status, and heavy metal content. This integrated field-to-laboratory training enabled students to understand local soil conditions while providing scientific data to support environmentally friendly farming practices.

2. Enhancing Professional Competencies through Advanced Analytical Instrumentation

The project significantly strengthened students' technical capabilities by providing hands-on training in advanced laboratory techniques. Students learned analytical procedures such as the Aqua Regia Microwave Digestion Method and the Mehlich Soil Extraction Method, while operating sophisticated instruments including Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES), Ultra Performance Liquid Chromatography (UPLC), and Ultraviolet-Visible Spectrophotometry (UV/Vis). These analytical skills enabled students to apply scientific research methods to practical agricultural challenges.

3. Integrating Food Safety and Nutritional Quality Assessment

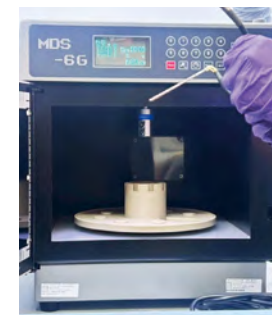
The project introduced both rapid screening and precision analytical methods to address diverse agricultural testing needs. In addition to monitoring food safety indicators such as heavy metals and pesticide residues, students analyzed nutritional components including vitamin C and nitrate. This comprehensive approach enabled students to evaluate agricultural products from both food safety and nutritional perspectives while applying nationally recognized testing standards.

4. Promoting Knowledge Co-creation and Talent Development

Students presented and shared analytical findings through project presentations and peer learning activities. This collaborative learning model strengthened participants' abilities in scientific communication and data interpretation while establishing a sustainable knowledge-sharing platform for agricultural testing. The project also narrowed the gap between university education and the professional needs of the agricultural testing industry.

Photos of Achievements

Students presenting project findings on soil analysis and sustainable agriculture.



Students receiving hands-on training in advanced analytical instrumentation.

6-3 Community and Place-based Co-creation Initiatives

SDGs | 1, 4, 8, 10, 14, 17

SDG Targets | 1.3, 4.1, 8.6, 10.2, 14.2, 17.17

Volunteer Service through Student Organizations

1. Educational Priority Area Winter and Summer Camp Program

• Project Overview

This program encourages student organizations to organize volunteer service camps during winter and summer vacations for elementary and secondary schools located in Educational Priority Areas (EPAs). Through free educational camp activities, the initiative seeks to reduce learning disparities while integrating the principles of service-learning into experiential education. By participating in community service, university students develop a spirit of optimism, social responsibility, and active civic engagement.

• Key Achievements

During the 2025 Winter Vacation, approximately 160 student volunteers from 15 departmental student associations formed five volunteer teams to serve five elementary schools in Yunlin County, including Raoping Elementary School (Citong Township), Jianyang Elementary School (Sihu Township), Xialun Elementary School (Kouhu Township), Mingli Elementary School (Mailiao Township), and Yongding Elementary School (Erlun Township). The program benefited nearly 230 elementary school students. The camps incorporated discipline-based learning activities, including science education, English learning, and recreational sports, together with character education, life education, tobacco prevention, drug awareness, health promotion, environmental and ecological conservation, and aesthetic education. In addition, sessions on gender equality and anti-bullying were provided to strengthen students' awareness and self-protection skills. Through diversified learning activities and close interaction with university volunteers, the program fostered interdisciplinary competencies, enriched students' winter learning experiences, and demonstrated NFU's commitment to educational equity and community engagement.

Educational Priority Area Winter and Summer Camp Program Statistics (2021–2025)

Year	Student Organizations	Camp Programs	Student Volunteers	Participants Served	Service Hours
2021	20	11	389	413	251.5
2022	21	12	378	328	186
2023	17	7	263	385	183
2024	18	7	264	358	182
2025	15	5	164	232	142

Photos of Achievements



▲ Industrial Management Student Association conducting an environmental and ecological conservation course.



▲ Department of Electrical Engineering Student Association conducting an aesthetic education course.

▼ Department of Information Management Student Association leading an outdoor team challenge activity.



▼ Department of Leisure and Recreation Student Association performing a team counselor educational skit.



2. Sustainable Community Service Activities by Student Organizations

● Project Overview

NFU encourages student organizations to integrate the Sustainable Development Goals (SDGs) into community service by leveraging university expertise and local resources to develop interdisciplinary solutions and promote sustainable action. Through participation in a wide range of service activities—including environmental conservation, community service, and rural outreach—students strengthen their sense of social responsibility, civic engagement, service competencies, and personal development while enhancing their ability to learn, reflect, and think critically in real-world settings. The program includes three major categories of service activities:

- (1) Community Service: Providing volunteer services for specific groups and social welfare organizations, including nursing homes, children's homes, community kitchens for older adults, social welfare agencies, and animal shelters.
- (2) Rural Outreach: Organizing educational camps and mentorship programs for elementary and secondary schools in rural communities to promote educational equity.
- (3) Environmental Service: Participating in environmental conservation activities, such as mountain and beach cleanups, biodiversity conservation, and campus environmental maintenance.

● Key Achievements

During the first semester of Academic Year 2025, student organizations recorded a total of 1,113 participant attendances in sustainable community service activities. Through diverse service-learning opportunities, students applied their professional knowledge in authentic community settings, strengthened partnerships with local communities, and contributed to sustainable social and environmental development.

Student Organization Sustainable Service Activities Statistics (Academic Years 2021–2025)

Academic Year	Number of Participants		
	Community Service	Rural Outreach	Environmental Service
2021	281	885	330
2022	483	409	614
2023	392	747	399
2024	139	1,520	535
2025 (First Semester)	54	800	259

Photos of Achievements



▲ Department of Electronic Engineering Student Association conducting science outreach experiments through the Science Express Program.

► Department of Information Management Student Association participating in a beach cleanup at Yuguang Island.

► Department of Automation Engineering Student Association participating in a mountain cleanup at Alishan.

▼ Department of Computer Science and Information Engineering Student Association participating in a mountain cleanup at Huashan.

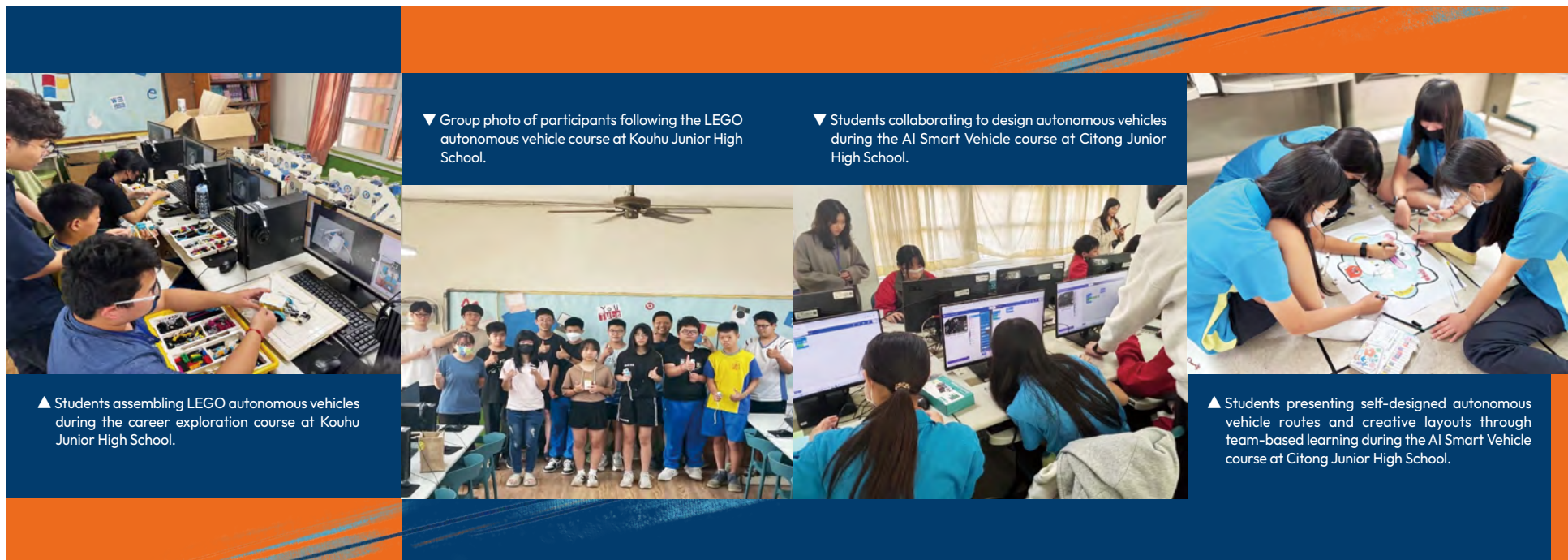


Industry–Academia Collaboration: Empowering Rural Students to Explore Their Future

The Rural Career Exploration Program is a collaborative initiative between National Formosa University (NFU) and the Fengtay Cultural and Educational Foundation. By integrating NFU's academic expertise with the foundation's long-term commitment to local communities, the program introduces university resources into junior high schools in underserved rural areas, establishing a sustainable learning mechanism that promotes educational equity and community development. Led by NFU faculty members and interdisciplinary teaching teams, the program offers career exploration courses across seven thematic areas, including engineering technologies (aircraft, mechanical engineering, and automation), biotechnology and healthy living, food applications and aging simulation, and digital technologies, electronics, and artificial intelligence. Combining theoretical instruction with hands-on learning, the courses help students discover their interests, explore future career pathways, and make more informed decisions regarding vocational education and career development.

The initiative also seeks to narrow the educational resource gap between rural communities and urban areas. The program further provides university students with valuable teaching and service-learning opportunities. By translating professional knowledge into accessible learning experiences and responding to real classroom situations, participating students strengthen their communication, leadership, problem-solving, and instructional skills.

In 2025, the program partnered with 10 rural junior high schools, delivering 76 career exploration courses that benefited 255 student attendances. A total of 75 NFU students participated as teaching assistants and mentors. Through collaborative learning experiences, both university and junior high school students enhanced their knowledge, practical skills, and career awareness while advancing SDG 4 (Quality Education), SDG 10 (Reduced Inequalities), and SDG 11 (Sustainable Cities and Communities).





▲ Students creating leaf print artwork during the Agricultural Innovation course at Kouhu Junior High School.



▲ Students participating in a hands-on leaf printing activity during the Agricultural Innovation course at Kouhu Junior High School.



▲ Students assembling planetary gear systems during the Fun with Science course at Erlun Junior High School.



▲ Group photo of participants following the "How Vehicles Work" session of the Fun with Science course at Erlun Junior High School.



▼ Students participating in the Beauty, Food, and Everyday Science Camp at Feisha Junior High School.



▼ Group photo of participants following the Beauty, Food, and Everyday Science Camp at Feisha Junior High School.



▼ Students participating in an AI model training demonstration during the AI Innovator course at Mailiao Junior High School.



▼ Group photo of participants following the AI Innovator course at Mailiao Junior High School.

Appendix I. GRI Content Index

Statement of Use		National Formosa University has reported the information cited in this GRI Content Index with reference to the GRI Standards.					
GRI 1 Used		GRI 1: Foundation 2021					
Topic		Disclosure		Corresponding Section		Page	Remarks
GRI 2: General Disclosures 2021							
The organization and its reporting practices	2-1	The organization and its reporting practices		1-1 University History, Organization and Structure		P.9	
	2-2	Entities included in the organization’s sustainability reporting		About This Report		P.1	
	2-3	Reporting period, frequency and contact point		About This Report		P.1	
	2-4	Restatements of information		About This Report		P.1	
	2-5	External assurance		About This Report		P.1	
Activities and workers	2-6	Activities, value chain and other business relationships		1-1 University History, Organization and Structure		P.9	
	2-7	Employees		1-1 University History, Organization and Structure 3-1 Talent Attraction and Retention		P.9 P.37	
	2-8	Workers who are not employees		1-1 University History, Organization and Structure 3-1 Talent Attraction and Retention		P.9 P.37	
Governance	2-9	Governancestructure and composition		1-1 University History, Organization and Structure 2-1 University Governance		P.9 P.27	
	2-10	Nomination and Selection of the Highest Governance Body		2-1 University Governance		P.27	
	2-11	Chair of the Highest Governance Body		2-1 University Governance		P.27	
	2-12	Role of the highest governance body in overseeing the management of impacts		1-3 Sustainable Development Goals and Strategies 2-1 University Governance		P.17 P.27	
	2-13	Delegation of responsibility for managing impacts		1-3 Sustainable Development Goals and Strategies 2-1 University Governance		P.17 P.27	
	2-14	Role of the highest governance body in sustainability reporting		1-3 Sustainable Development Goals and Strategies 2-1 University Governance		P.17 P.27	
	2-15	Conflicts of interest					Not applicable As a national university, the University does not have a board of directors; therefore, this disclosure is not applicable.

Topic		Disclosure	Corresponding Section	Page	Remarks
Governance	2-16	Communication of critical concerns	2-1 University Governance	P.27	
	2-17	Collective knowledge of the highest governance body	2-1 University Governance	P.27	
	2-18	Evaluation of the performance of the highest governance body	2-1 University Governance	P.27	
	2-19	Remuneration policies	3-2 Compensation, Benefits and Development	P.39	
	2-20	Process to determine remuneration	3-2 Compensation, Benefits and Development	P.39	
Strategy, policies and practices	2-21	Statement on sustainable development strategy	Message from the President	P.2	
	2-22	Policy commitments	1-2 University Development Blueprint	P.13	
			1-3 Sustainable Development Goals and Strategies	P.17	
	2-23	Embedding policy commitments	1-2 University Development Blueprint	P.13	
			1-3 Sustainable Development Goals and Strategies	P.17	
			5-3 Green Procurement and Supply Chain	P.102	
	2-24	Processes to remediate negative impacts	2-2 Risk Management and Internal Control	P.30	
	2-25	Grievance mechanisms	3-3 Diversity, Equity and Human Rights	P.41	
	2-26	Mechanisms for seeking advice and raising concerns	1-4 Stakeholder Engagement	P.19	
			3-3 Diversity, Equity and Human Rights	P.41	
2-27	Compliance with laws and regulations	2-4 Academic and Integrity Ethics	P.32		
Stakeholder Engagement	2-28	Membership associations	2-1 University Governance	P.27	
	2-29	Approach to stakeholder engagement	1-4 Stakeholder Engagement	P.19	
	2-30	Collective bargaining agreements	1-4 Stakeholder Engagement	P.19	
GRI 3 : Material topics2021					
Material topics	3-1	Process to determine material topics	1-5 Identification of Material Topics	P.21	
	3-2	List of material topics	1-5 Identification of Material Topics	P.21	
	3-3	Management of material topics	1-5 Identification of Material Topics	P.21	
			02 University Governance and Sustainability Management	P.26	
			03 Well-being Campus and Talent Development	P.36	
			04 Teaching and Research Innovation and Industry-Academia Value	P.56	
			05 Green Campus and Environmental Sustainability	P.94	
			06 Social Impact and USR	P.112	

Topic		Disclosure	Corresponding Section	Page	Remarks
Topic Standards: Economic					
GRI 201 Economic Performance 2016	201-2	Financial implications and other risks and opportunities due to climate change	5-5 Climate Risks and Adaptation	P.106	
	201-4	Financial assistance received from government	2-3 Finance and Resource Allocation	P.31	
	203-1	Infrastructure investments and services supported	06 Social Impact and USR	P.111	
	203-2	Significant indirect economic impacts	2-5 Information Security and Smart Campus	P.33	
Topic Standards: Economic					
GRI 302 Energy 2016	302-1	Energy consumption within the organization	5-1 Energy and Carbon Emissions Management	P.95	
	302-4	Reduction of energy consumption	5-1 Energy and Carbon Emissions Management	P.95	
GRI 303 Water and Effluents 2018	303-1	Interactions with water as a shared resource	5-2 Water Resources and Waste Management	P.97	
	303-2	Management of water discharge-related impacts	5-2 Water Resources and Waste Management	P.97	
	303-3	Water withdrawal	5-2 Water Resources and Waste Management	P.97	
GRI 305 Emissions 2016	305-1	Direct (Scope 1) GHG emissions	5-5 Climate Risks and Adaptation	P.106	
	305-2	Energy indirect (Scope 2) GHG emissions	5-5 Climate Risks and Adaptation	P.106	
	305-3	Other indirect (Scope 3) GHG emissions	5-5 Climate Risks and Adaptation	P.106	
GRI 306 Waste 2020	306-1	Waste generation and significant waste-related impacts	5-2 Water Resources and Waste Management	P.97	
	306-2	Management of significant waste-related impacts	5-2 Water Resources and Waste Management	P.97	
	306-3	Waste generated	5-2 Water Resources and Waste Management	P.97	

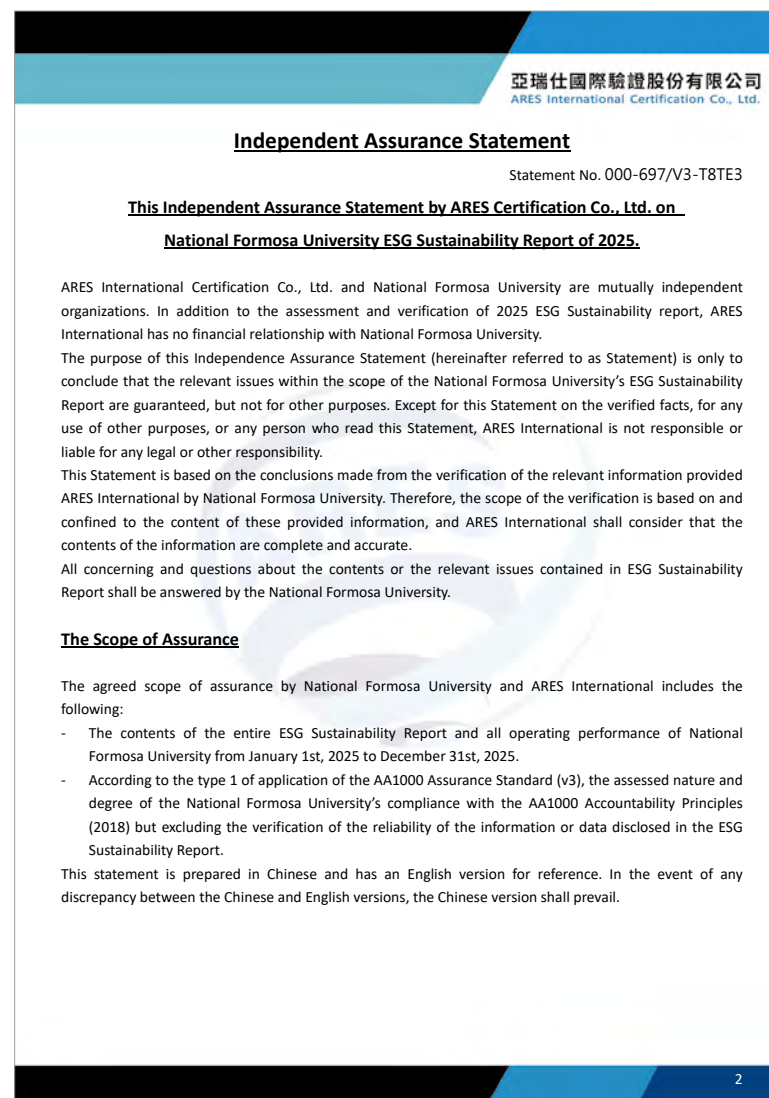
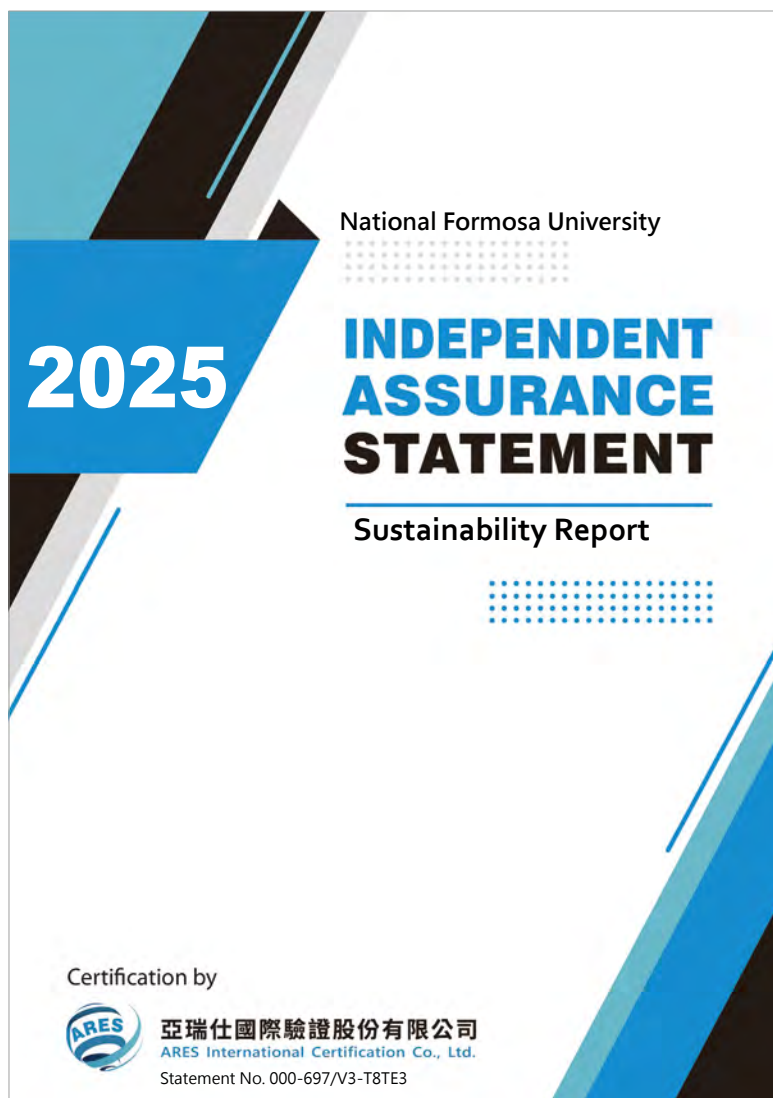
Topic	Disclosure	Corresponding Section	Page	Remarks
Topic Standards: Social				
GRI 401 Employment 2016	401-1	New employee hires and employee turnover	3-1 Talent Attraction and Retention	P.37
	401-2	Benefits Provided to Full-Time Employees (Excluding Temporary or Part-Time Employees)	3-2 Compensation, Benefits and Development	P.39
	401-3	Parental leave	3-1 Talent Attraction and Retention	P.37
GRI 403 Occupational Health and Safety 2018	403-1	Occupational health and safety management system	3-5 Campus Safety and Health	P.47
	403-3	Occupational health services	3-5 Campus Safety and Health	P.47
	403-4	Worker participation, consultation, and communication on occupational health and safety	3-5 Campus Safety and Health	P.47
	403-5	Worker training on occupational health and safety	3-5 Campus Safety and Health	P.47
	403-6	Promotion of worker health	3-5 Campus Safety and Health	P.47
GRI 404 Training and Education	404-1	Average hours of training per year per employee	3-5 Campus Safety and Health	P.47
GRI 405 Employee Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	3-1 Talent Attraction and Retention	P.37
GRI 406 Non- discrimination	406-1	Incidents of discrimination and corrective actions taken	3-3 Diversity, Equity and Human Rights	P.41
GRI 413 Local Communities	413-2	Operations with significant actual and potential negative impacts on local communities	06 Social Impact and USR	P.111
Material Topics: Customized Topics				
Customized Topic	Teaching Quality and Learning Outcomes		4-2 Teaching Quality and Sustainability Courses	P.59
			4-5 Awards and Honors	P.83
	Student Internships and Career Guidance		4-1 Student Internships and Employment	P.57
			4-4 Industry-Academia Collaboration and Technology Applications	P.79
	Environmental Education		5-4 Ecology and Campus Environment	P.103
			5-6 Environmental Sustainability Highlights	P.110
	Natural Ecological Resources		5-4 Ecology and Campus Environment	P.103

Appendix II. TCFD Climate-related Financial Disclosures Index

1. Climate-related Risks and Opportunities and Related Response Measures

Item	Report Section
1. Describe the University's oversight and governance of climate-related risks and opportunities.	5-5 Climate Risks and Adaptation
2. Describe how identified climate-related risks and opportunities affect the University's operations, strategy, and finances over the short, medium, and long term.	5-5 Climate Risks and Adaptation
3. Describe the financial impacts of extreme climate events and transition actions.	5-5 Climate Risks and Adaptation
4. Describe how the processes for identifying, assessing, and managing climate-related risks are integrated into the overall risk management system.	5-5 Climate Risks and Adaptation
5. If scenario analysis is used to assess resilience to climate-related risks, describe the scenarios, parameters, assumptions, analytical factors, and major financial impacts used.	5-5 Climate Risks and Adaptation
6. If a transition plan is in place to manage climate-related risks, describe the plan and the metrics and targets used to identify and manage physical and transition risks.	5-5 Climate Risks and Adaptation
7. If internal carbon pricing is used as a planning tool, describe the basis for setting the carbon price.	Not applicable. As an educational institution, the University currently does not use internal carbon pricing as a planning tool.
8. If climate-related targets have been established, describe the activities covered, GHG emission scopes, planning period, and annual progress. If carbon offsets or Renewable Energy Certificates (RECs) are used to achieve the targets, disclose the source and quantity of offset credits or the number of RECs.	The University conducts GHG emissions inventories and obtains assurance of its GHG inventory from an independent external organization. The University currently conducts communication and awareness activities on energy conservation and carbon reduction. Carbon offsets and Renewable Energy Certificates (RECs) are currently not applicable.
9. GHG inventory and verification status	In 2025, the University's GHG inventory was subject to third-party verification by Shou Pu Co., Ltd., and the verification and assurance results met the applicable requirements.
10. Targets used to manage climate-related risks and opportunities, and performance against those targets.	5-5 Climate Risks and Adaptation

Appendix III. Independent Assurance Statement



ARES INTERNATIONAL's Opinion

We summarize the contents of National Formosa University's ESG Sustainability Report and provide a fair opinion of National Formosa University's relevant operations and performance. We believe that the indices such as economic, social and environmental performance of 2025 are presented correctly. The performance indices disclosed in the report demonstrate National Formosa University's efforts to identify and meet stakeholder expectations.

Our verification activities are implemented by a team with the capacity for verifying in accordance with AA1000 Assurance Standard (v3), as well as planning and implemented this part of the activities to obtain the necessary information and data. We believe there are sufficient evidences provided by National Formosa University to show that its reporting method according to the AA1000 Assurance Standard (v3) and their self-statement are in line with the GRI standards.

Verification Method

In order to collect evidences related to conclusions, we implemented the following tasks:

- Implement the high-level management review for topics from external groups related to ESG Sustainability policy to confirm the appropriateness of the report in this statement.
- Discussions about stakeholder's engagement with the managers of National Formosa University, however, we have no direct contact with external stakeholders.
- Interviews with employees related to ESG Sustainability management, report preparation and information provision.
- Review the critical developments related to organizations.
- Review the scope and maturity of systems related to financial and non-financial reports.
- Review the supporting evidences declared in the report, and the process management described in the report and its associated AA1000 Accountability Principles (2018) on the principles of inclusivity, materiality, responsiveness and impact.

Conclusion

The detailed review results of the AA1000 Accountability Principles and the core disclosures of the Global Reporting Initiative (GRI) standard, Task force on Climate-related Financial Disclosures (TCFD) for inclusivity, materiality, responsiveness and impact are as follows:

The inclusivity

This report reflects that National Formosa University engages with its stakeholder through a variety of channels, such as internal and external communication mechanisms and the activities of stakeholders. This report covers topics of concern in stakeholders associated with National Formosa University, fairly reports, and discloses economic, social, and environmental information. In our professional opinions, this report covers National Formosa University's inclusivity issues.

The materiality

National Formosa University publishes the information related to ESG Sustainability to enable stakeholders to judge the organization management and performance. In our professional opinions, this report appropriately covers the material issues of National Formosa University.

Responsiveness

National Formosa University responds to requests and opinions from stakeholders. The implementation methods include customer satisfaction surveys and communication mechanisms for numerous internal and external stakeholders. In our professional opinions, this report covers National Formosa University's responsiveness topics.

Impact

National Formosa University developed and implemented processes to monitor, measure and account for how their actions affect the wider ecosystem, echoing all the aspects of this report demonstrated by their own management systems and capabilities issue content, and provide the comprehensive and balanced disclosure, such as the declaration of energy projects and carbon footprint verification. In our professional opinions, this report covers National Formosa University's impact topic.

GRI Standards

National Formosa University provides declaration of compliance with the GRI Standards. Based on the results of the review, we confirmed that the relevant ESG Sustainability indicators referred to GRI Standards in the report have been completely disclosed, partially disclosed or omitted. In our professional opinions, this declaration covers the Sustainability topics of National Formosa University.

TCFD

National Formosa University provides declaration of compliance with the TCFD. Based on the results of the review, we confirmed that the relevant ESG Sustainability indicators referred to TCFD in the report have been completely disclosed, partially disclosed or omitted. In our professional opinions, this declaration covers the Sustainability topics of National Formosa University.

亞瑞仕國際驗證股份有限公司
ARES International Certification Co., Ltd.

Assurance Level

According to the AA1000 Assurance Standard (v3), we verify this statement as a medium level of assurance, as in the scope and method described in this statement.

Responsibility

The responsibility of this ESG Sustainability report, as stated in this statement, is owned by the person in charge of National Formosa University. The responsibility of ARES International is to provide professional opinions based on the described scope and method, and to provide an independent assurance statement for the stakeholders.

Ability and Independence

ARES International is composed of experts in a various field of management systems. The verification team is composed of members in the professional backgrounds with the qualifications of lead auditor trained in sustainable development, environmental and social management standards such as AA1000AS, AA1000AP, ISO 14001, ISO 14064-1, ISO 14067, ISO 45001 and ISO 9001. This independent assurance statement is based on the ARES International's fairtrade guidelines.

On behalf of the assurance team
July 16, 2026
ARES International Certification Co., Ltd. (ARES Certification Group)
Taiwan, Republic of China

Signed by


 Lead Verifier


 C.E.O
 Calvin Chen


AA1000
 Licensed Report
 000-697/V3-T8TE3

5

Appendix IV. Greenhouse Gas Emissions Verification Statement

GG26-1/TW022

Verification

Greenhouse Gas Verification Statement

GHG Emissions Inventory for the Year 2025

National Formosa University

No. 64, Wenhua Rd., Huwei Township, Yunlin County 63201, Taiwan (R.O.C.)

Sopura Co., Ltd. has completed the verification in accordance with ISO 14064-3:2019 and confirms conformity with the following standard requirements:

ISO 14064-1:2018

Direct GHG Emissions: 2,276.8811 tonnes CO₂e

Indirect GHG Emissions: 8,548.4711 tonnes CO₂e

Direct and Indirect GHG Emissions: 10,825.3522 tonnes CO₂e

Lead Verifier

Date: July 10, 2026

Version: 1

GHG 01-VS02

Sopura Co.,LTD.

This verification statement is invalid unless used together with the pages covering verification scope.

Page 1 of 4

GG26-1/TW022

[GHG Emissions by Category within the Campus-wide Boundary] Unit: tonnes CO₂e

Statement Boundary		GHG Emissions	
Category	Description		
Direct GHG Emissions	Aggregates GHG emissions owned or controlled within the organizational boundary.	2,276.8811	
Indirect GHG Emissions	Energy Indirect GHG Emissions	Purchased Electricity	6,295.8829
	Transportation GHG Emissions	Business travel, employee commuting	1,873.1201
	GHG Emissions from Products Used by the Organization	Tap water, upstream emissions of purchased goods (paper); upstream emissions associated with electricity; general industrial waste treatment; insulating gas in transformer cabinets	379.4681
	GHG Emissions from the Use of the Organization's Products	NA	-
	GHG Emissions from Other Sources	NA	-
Total Direct and Indirect GHG Emissions		10,825.3522	

Sopura Co., Ltd. entered into an agreement with National Formosa University, located at No. 64, Wenhua Rd., Huwei Township, Yunlin County 63201, Taiwan (R.O.C.), to perform verification of direct and indirect GHG emissions in accordance with the requirements of ISO 14064-3:2019. The GHG emissions cover the period from January 1, 2025 to December 31, 2025. The contents of this verification statement are described as follows:

Roles and Responsibilities

The management of National Formosa University is responsible for ensuring that the development, record-keeping, and documentation procedures of the organization's GHG information system comply with the applicable standard requirements, for assessing, determining, and reporting GHG emissions information, and for providing Sopura Co., Ltd. with any other information required to support the GHG assertion.

Sopura Co., Ltd., upholding the principles of an independent third-party verification body, carried out GHG emissions verification activities on June 26, 2026, in accordance with the agreement dated May 8, 2026, and the requirements of ISO 14064-1:2018 and ISO 14064-3:2019. Based on the verification results covering the scope, objectives, and criteria applicable to National Formosa University, and the GHG emissions reporting period from January 1, 2025 to December 31, 2025, this GHG verification statement is hereby issued.

Level of Assurance

Sopura Co., Ltd. performed the verification procedures based on the verification criteria and agreement; This verification statement is invalid unless used together with the pages covering verification scope.

Page 2 of 4

GG26-1/TW022

for the GHG assertions made by National Formosa University, the verification evidence for Category 1 and Category 2 shows no violation of the materiality threshold and meets the requirements for reasonable assurance recognized by the competent authority, while the verification evidence for Category 3 and Category 4 indicates a limited assurance level.

Verification Scope

In accordance with the bilateral agreement with National Formosa University, Sopura Co., Ltd. confirmed the conformity of GHG emissions from anthropogenic activities within National Formosa University's organizational boundary and statement scope with the relevant standard requirements. Based on the criteria of ISO 14064-3:2019, the above assurance statement covers the following:

- Verification of National Formosa University's GHG emissions for the year 2025
- Campuses covered:

Campus	Geographic Location of Activities
National Formosa University	No. 64, Wenhua Rd., Huwei Township, Yunlin County 63201, Taiwan (R.O.C.)

- The information on GHG emission sources is derived from National Formosa University's inventory data
- Types of GHGs emitted: Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur Hexafluoride (SF₆), Nitrogen Trifluoride (NF₃)
- Global Warming Potential (GWP) values are based on the IPCC 2013 Fifth Assessment Report
- Source of Emission Factor Database:
 - Direct GHG Emissions: Executive Yuan Environmental Protection Administration GHG Emission Factor Management Table, Version 6.0.4
 - Indirect GHG Emissions:
 - For electricity as an energy input, the electricity emission factor is based on the 2025 (ROC Year 114) electricity carbon emission factor benchmark published under Article 28 of the Electricity Act by the Bureau of Energy, Ministry of Economic Affairs: calculated at 0.467 kg CO₂e /kWh
- Secondary databases are referenced from the EPA Product Carbon Footprint Information Platform.
- GHG emissions information covers the period from January 1, 2025 to December 31, 2025.
- Inventory Report Version: 1st edition, 2025.05.20.
- Inventory Statement Version: 1st edition, 2025.06.26
- Verification Statement Version: 1st edition, 2025.07.10
- Intended users of this verification statement: Internal organizational use only.

Verification Objectives

Sopura Co., Ltd. independently and objectively obtains evidence supporting the disclosed GHG assertion information, ensuring that the statement information meets the criteria of accuracy, completeness, consistency, and transparency, including the identification of any errors or omissions.

Verification Criteria

Verification of the GHG assertion is conducted in compliance with the following standard requirements:

- ISO 14064-1:2018 — Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals

Materiality

This verification statement is invalid unless used together with the pages covering verification scope.

Page 3 of 4

GG26-1/TW022

National Formosa University has defined the materiality threshold for conformity of its GHG assertion at 5%. Sopura Co., Ltd. assessed the extent of omissions or errors in the disclosed GHG information against this criterion.

Conclusion

National Formosa University has presented its GHG assertion in accordance with the verification criteria requirements, with the disclosed information covering the period from January 1, 2025 to December 31, 2025, during which GHG emissions totaled 10,825.3522 tonnes CO₂e. Sopura Co., Ltd. adopted a risk-based approach to ensure and control the risks associated with the disclosure of GHG emissions information; planned and performed verification procedures including pre-engagement assessment, sampling plans, and evidence collection, obtaining the information, explanations, and supporting evidence necessary for the verification statement, so as to ensure the accuracy of the disclosed GHG emissions.

Sopura Co., Ltd., maintaining an objective and impartial stance, evaluated National Formosa University's GHG information system, monitoring methods, and statement procedures for the GHG emissions reporting period from January 1, 2025 to December 31, 2025. Based on the verification results, and having confirmed the consistency and appropriateness of the applicable scope, objectives, and criteria, **reasonable assurance is provided for Category 1 and Category 2**, and limited assurance for Category 3 and Category 4, in this verification opinion statement, with no qualifications noted.

Based on its role and responsibility, Sopura Co., Ltd. confirms that the GHG assertion in this statement is material, accurate, and fairly presents the GHG data and information, and has been prepared and executed for GHG quantification, monitoring, and reporting in accordance with ISO 14064-1:2018. This verification statement shall be regarded as presenting the verification results of National Formosa University's GHG assertion.

Confidentiality

This statement and its attachments may contain confidential information belonging to National Formosa University. Without the written consent of National Formosa University, no other individual, group, or company is permitted to reproduce or distribute it.

Statement on Avoidance of Conflicts of Interest

The contents of this statement and its attachments fully comply with the standard methods and procedures required by the competent authority, and the verification work was conducted with fairness and integrity. There is no falsification whatsoever; this Company has no financial or investment relationship with the verified entity, and fully meets the competent authority's requirements for the avoidance of conflicts of interest.

Verification Team

The above statement is issued by the verification team based on a fair and impartial verification process regarding National Formosa University's GHG emissions for the year 2025.

Verification Team Leader (VVB):



Note: This verification statement is issued in accordance with Sopura Co., Ltd.'s Terms of Service for GHG Verification. The content of this statement was prepared by Sopura Co., Ltd. based on the results of the verification of the GHG assertion, and was issued upon the client's consent. This statement does not relieve the client of its responsibility to comply with its organizational charter, national or local laws and regulations, or any applicable international guidelines or charters. The client and Sopura Co., Ltd. are independent entities from one another; the client is not bound by Sopura Co., Ltd., and Sopura Co., Ltd. is not required to represent the client to any organization or group other than the client itself.

This verification statement is invalid unless used together with the pages covering verification scope.

Page 4 of 4

