



2021 NCHU
Sustainability Report
(Condensed Version)



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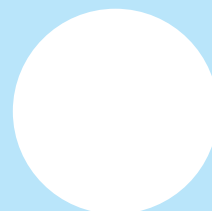
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Part 1: Brief History of NCHU

Established in 1919, National Chung Hsing University (NCHU) is the third largest research-intensive national university in Taiwan.

Part 1 Brief History of NCHU

1. Chronicle

- 1919 ■ Advanced Academy of Agronomy and Forestry
- 1928 ■ A Special Department affiliated to Taihoku Imperial University (now National Taiwan University)
- 1943 ■ Taichung College of Agronomy and Forestry (located in Taichung)
- 1946 ■ Taiwan Provincial College of Agriculture
- 1961 ■ Taiwan Provincial Chung Hsing University
- 1971 ■ Present National Chung Hsing University

2. Motto

Sincerity, Simplicity, Advancement, Diligence

3. Organizational Structure & Campus Size

- College
 - ◎ 9 colleges & International College of Innovation and Industry Liaison
- Affiliated Schools
 - ◎ The Affiliated Senior High School of National Chung Hsing University
 - ◎ The Affiliated Taichung Agricultural Vocational High School of National Chung Hsing University
- Campus Size and Other Locations
 - ◎ Total Campus Area: 8,360 hectares
 - ◎ Main Campus Area: South Taichung City, 53 hectares



4. Number of Faculty and Students

9,264 Undergraduate Students

5,877 Graduate Students

1,153 Doctoral Students

38 Teaching Assistant

775 Professors (Researchers)

236 Vocational Workers and Guards

397 Contract Coordinators

589 Project Assistants

116 Post-doctoral Research Fellows

83.3% Graduation Rate of Undergraduate Division

Part 2: Sustainability

Highlighting NCHU's key achievements and implements in school governance, social participation, and environmental governance.

Part 2 Sustainability

1. School Governance



● Higher Education SPROUT Project

NT\$**443.58** million, amount of subsidies received improved to **5th** nationwide.



● National University System of Taiwan (NUST)

Formed the National University System of Taiwan (NUST) with **11** universities.



● Ranked in the Top 1% Worldwide in ESI

Ranked in the **top 1%** of ESI institutions worldwide in terms of number of articles and number of citations in **10** major fields.

2. Social Participation



● International Volunteer Services

Cumulative service hours **surpassed 10,000** hours, and the number of people served and impacted surpassed **4,000** people.



● Monitoring of Avian Influenza Viruses

Completed the analysis of **6** major risk factors in the spread of viruses between different poultry species and farms.



● TTQS Gold Medal

The International College of Innovation and Industry Liaison was recognized with the **TTQS Gold Medal** in 2021.



● Established the Forest Sustainability & Green Services Office

Organized **6** forums on payment for forest ecosystem services in Taiwan, **15** in-depth interviews with industry, government, and academia.

Part 2: Sustainability

Highlighting NCHU's key achievements and implements in school governance, social participation, and environmental governance.



● Cooperative Education

NT\$1.98 billion in total funding for cooperative education projects, an increase of approximately NT\$8 million compared to 2019.



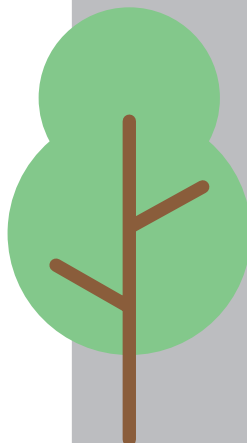
● Employment of Persons with Disabilities

Recognized for excellence in hiring persons with disabilities for 6 times (2013, 2014, 2015, 2018, 2019, 2021).



● Sustainability Report Gold Award

Gold Award for 2020 TCSA University Sustainability Report Award.



3. Environmental Governance



● Greenhouse Gas

Total emissions decreased 37.7% by a total of 13,312 metric tons CO₂ in the past 10 years.



● Solar Rooftop

Installed solar rooftop photovoltaic equipment on 11 buildings with a total capacity of 1,984 kW.



● Improvement of Water Pollution

Invested NT\$60 million in a sewage system that is connected to the pipelines of all 63 buildings in the university, improving the issue of sewage treatment on campus.



● UI Green Metric

Ranked 114th in the world and 11th in Taiwan.

Part 3: Academic Research & Industry Collaboration

Facing the global current of sustainability - induced developments and challenges, NCHU constantly extends its influence via outstanding academic performance on research and industry-academia collaboration.



Part 3 Academic Research & Industry Collaboration

1. Research Projects



265 Sustainability-Related Research Projects



1,536 Journal Articles on SCI & SSCI and A&HCI



929 Open Access Journal Articles



1,773 Scopus Articles published

2. Industry-Academia Collaboration

>1,400 Patents granted, generating more than **NT\$ 200 million** (2001 to 2021).

1,357 Educational projects with a total funding of **NT\$1.9 billion**.

175 Industrial-Academic Cooperation Projects, with a total amount of **NT\$366 million**.

107 Industry-Academia Alliances **NT\$7.28 million**.

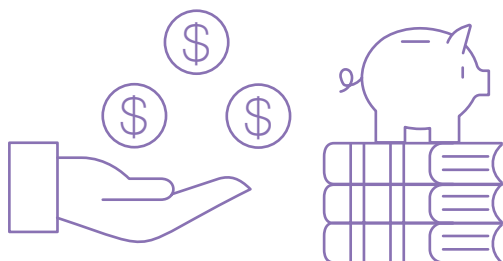
Part 4: Scholarships & Grants

The scholarship, grants, and support for the disadvantaged students provided by NCHU.

Part 4 Scholarships & Grants

1. Scholarships / Grants

- **Scholarships / Grants set up with external donations :**
Distributed NT\$**7.38** million to **284** recipients.
- **Student Loans :**
NT\$**120** million to **3,319** students.



2. Support for Disadvantaged Students

- **Hsing Yi Admission :**
47 students admitted.
Increase the chance for financially disadvantaged students to attend NCHU.
- **Hsing Yi Scholarship :**
 - ◎ **Fundraising :**
NT\$**400,000** for each admitted student.
 - ◎ **Accumulated donations :**
> NT\$**16** million (2017-2020).
 - ◎ **Cumulative grants :**
> NT\$**9** million granted to **185** students (2017-2020).

Part 5: Gender Equality

Below are the gender ratio of professors/supervisors, and the number of events and courses held at NCHU to promote gender equality consciousness.

Part 5 Gender Equality

- **22%** of scholars/professors are female.
- **18%** of supervisors are female.
- **21** events to promote gender equality consciousness with **2,800** participants (2019 Fall – 2020 Spring).
- **12** courses related to gender equality, with **613** participants (2020 Fall – 2021 Spring).



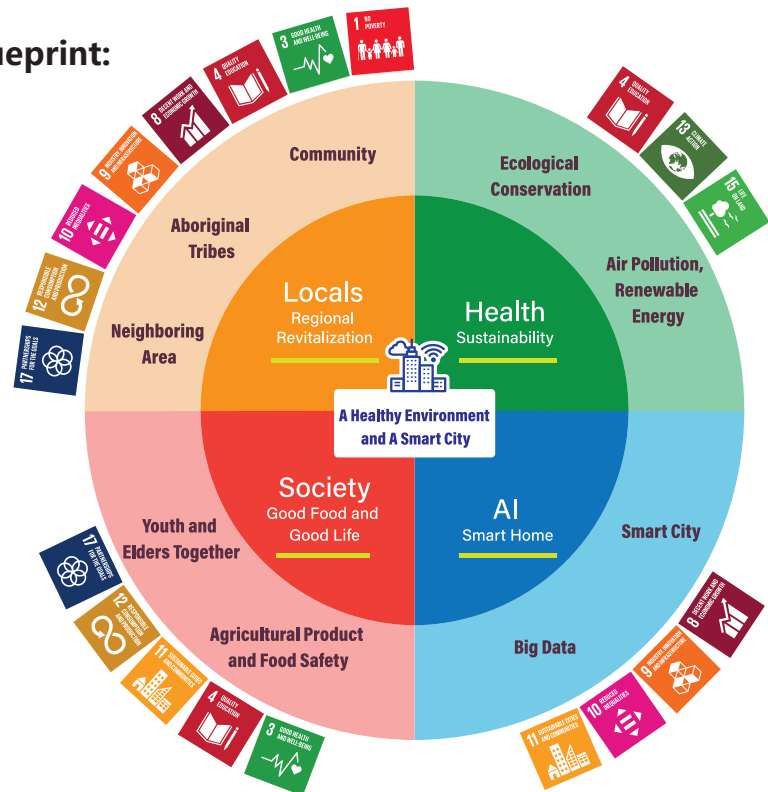
Part 6: Social Participation

This chapter summarizes 15 important university social responsibility (USR) results, awards, and sustainability initiatives.

Part 6 Social Participation

1.NCHU USR Developmental Blueprint:

- Locals: Regional Revitalization
(Community, Aboriginal Tribes,
and Neighboring Area)
- Health: Sustainability
(Ecological Conservation, Air
Pollution, Renewable Energy)
- AI: Smart Home
(Smart City, Big Data)
- Society: Good Food and Good Life
(Youth and Elders Together,
Agricultural Product and Food Safety)



Part 6: Social Participation

This chapter summarizes 15 important university social responsibility (USR) results, awards, and sustainability initiatives.

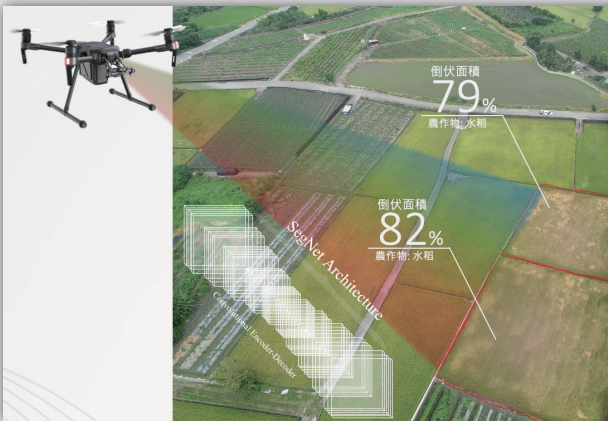
2.15 Social Participation Issues:



01 Creating an excellent scientific research environment for agriculture, and international cooperation in the development of food production technologies



02 Sustainable resource management and enhancing carbon sink agriculture



03 Integrating cross-disciplinary smart technologies to create an advantage for industries



04 Realizing global unity in health and protecting the well-being of animals



05 Conserving biodiversity and maintaining harmony in the ecological environment

Part 6: Social Participation

This chapter summarizes 15 important university social responsibility (USR) results, awards, and sustainability initiatives.



06 Directing efforts to local communities to accelerate regional revitalization



07 Establishing a green research platform to jointly create a forward-looking environment



08 Information and communication security management and industry ESG transformation



09 Creating a society with diverse cultures where humanities meet digital technology



10 Fostering cross-disciplinary literacy and realizing popular science education

Part 6: Social Participation

This chapter summarizes 15 important university social responsibility (USR) results, awards, and sustainability initiatives.



11 Corporate lifelong learning platform that enhances industrial competitiveness



12 Activating digital learning partners to care for underprivileged children



13 Promoting the concept of Arcadia by offering diverse learning courses



14 Conducting field surveys to preserve history, culture, and ecology



15 Volunteer: Think globally, Act Locally

Part 6: Social Participation

This chapter summarizes 15 important university social responsibility (USR) results, awards, and sustainability initiatives.

3.Awards:

- 1 [2021 TCSA Taiwan Corporate Sustainability Awards]
University Sustainability Report Award – Gold Award
- 2 [The 2st Annual University Social Responsibility
Award by Global Views Monthly]
Cultural Preservation – Excellent
- 3 [2021 USR EXPO]
2021 USR Featured Project Videos
- 4 [2020 USR EXPO]
Specially Topical – Sustainable Cities and
Communities
- 5 [2020 USR EXPO]
Best Popular Film Award
- 6 [2020 USR EXPO]
Best Practice Award



4.Sustainability Initiatives:

● Industrial Carbon Offset Promotions Office

Supports the government's GHG reduction goals and assists SMEs in developing low-carbon products and response strategies, in order to maintain the export competitiveness of SMEs. Gives priority to SMEs and plans to provide carbon reduction information and consulting to 200 SMEs starting in the first half of 2022. It will add 60 partnering vendors and is expected to help SMEs reduce carbon emissions by approximately 100 metric tons CO₂.



Part 6: Social Participation

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Carbon Neutrality Goal: Achieve **100%** Carbon Neutrality by 2040.



Strategies

- 1 Implement carbon inventory mechanisms, such as ISO-14064-1:2018.
- 2 Review carbon fixation by trees on campus and the Experimental Forest Office.
- 3 Continue to strengthen environmental governance (energy saving and carbon reduction, water consumption management, electricity consumption management, resource recycling, green procurement, and campus ecology).
- 4 Teachers and students jointly develop carbon neutrality technologies to achieve sustainable campus development.



Goals

- **Short-term (2025) :**
Develop a smart green campus – The university achieves **50%** carbon neutrality.
- **Mid-term (2035) :**
Towards a green campus – The university achieves **70%** carbon neutrality.
- **Long-term (2040) :**
Become a campus with sustainable development – The university achieves **100%** carbon neutrality.

Part 7: Environmental Governance

In pursuit of sustainability, NCHU actively solve various problems and continuously enhance the working environment and safety.

Part 7 Environmental Governance



6
Certified Green
Buildings.



37.7%
GHG Emissions in the
Past 10 Years.



11 Sets
Rooftop Photovoltaic
Equipment.
1,984 Kw



15.25%
Renewable Energy.
1,732,793 kWh
Power Generation.



12.2%
Water Consumption
Decreased Comparing
with 2022.



97.17%
Green procurement.



54%
Indoor Lighting
Energy Saved.



5,049
Old Air Conditioners
Replaced.



Part 7: Environmental Governance

In pursuit of sustainability, NCHU actively solve various problems and continuously enhance the working environment and safety.



NCHU Green Buildings

Area	Building Name	Certificate Grading	Academic Year
Campus	Language Center	Qualified	2005
	Social Science and Management Building	Qualified	2008
	Humanities Building	Qualified	2015
	Food Science and Biotechnology Building	Qualified	2019
	Women's Dorm-Cheng Xuan	Qualified	2019
	Xing-Da 2nd Village Dormitory	Qualified	2021



Part 8

Assurance Report



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Assurance Report of Independent Auditors

To: National Chung Hsing University

1. Scope

We have been engaged by National Chung Hsing University to perform a limited assurance engagement in relation to and report on selected sustainability performance indicators included in National Chung Hsing University's 2021 Sustainability Report ("the Sustainability Report").

Regarding the sustainability performance indicators selected by National Chung Hsing University and their applicable criteria, please refer to Appendix 7 of the Report.

Management Responsibility

National Chung Hsing University is responsible for the preparation of the Sustainability Report in accordance with adequate criteria, including referencing to Global Reporting Initiatives Standards ("GRI Standards") issued by Global Reporting Initiative (GRI), and for the design, execution and maintenance of internal controls in regard with report preparation to support the collection and presentation of the Sustainability Report.

Independent Auditor's Responsibility

Our responsibility is to plan and perform limited assurance engagement in accordance with Assurance Engagements No. 1 – "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the Accounting Research and Development Foundation.

2. Assurance

The procedures performed in limited assurance engagement vary in nature and timing are less in extent than for a reasonable assurance engagement so that the level of assurance is substantially lower than reasonable assurance engagement. While we considered the effectiveness of National Chung Hsing University's internal controls when determining the nature and extent of procedures, our review was not designed to provide assurance on internal controls.

To conclude for limited assurance, our procedures performed included:

- Interviewing with National Chung Hsing University's management and personnel to understand the National Chung Hsing University's implementation of overall social responsibility and reporting process;



- Performing analytical procedures on selected sustainability performance indicators; gathering and checking other supporting documentation and management information obtained; testing on sample basis if necessary.
- Reading National Chung Hsing University's Sustainability Report to ensure the implementation of overall social responsibility and reporting process is consistent with our understanding.

3. Limitations

Non-financial information contained within the Sustainability Report are subject to measurement uncertainties. The selection of different measurement techniques can result in materially different measurement. Also, assurance engagements are based on selective testing of information being examined, and it is not possible to detect all of the existing material misstatements whether resulting from fraud or error.

4. Quality and Independence

We are in conformity with *Statements of Auditing Standard No. 46 "Quality Control for Public Accounting Firms"* to establish and maintain a sound system of quality control, including code of professional ethics, professional standards and those written policies and procedures in applicable regulations. We are also in conformity with related independence and other ethics requirements in *The Norm of Professional Ethics*, which basic principles are integrity, objectivity, professional competence and due care and professional behavior.

5. Conclusion

Based on our procedures and obtained evidence, nothing has come our attention that causes us to believe that any material modifications or adjustments should be made to the selected sustainability indicators in accordance with applicable criteria.

Ernst & Young

Chen, Ming Hung

April 30, 2022

Notice to Readers

The reader is advised that the assurance report has been prepared originally in Chinese. In the event of a conflict between the assurance report and the original Chinese version or difference in interpretation between the two versions, the Chinese language assurance report shall prevail.

NCHU



This Publication is edited by the
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