

EMPOWERING CHANGE

CHUNGBUK NATIONAL
UNIVERSITY'S PROGRESS
ON SUSTAINABLE
DEVELOPMENT GOALS

2022-2023



충북대학교

CHUNGBUK NATIONAL UNIVERSITY



FOREWORD

Chungbuk National University (CBNU) celebrated its 72nd founding anniversary as Cheongju Junior Agricultural College on September 27, 2023.

Despite the Korean Civil War, the society's desire for higher education led to the establishment of CBNU, fulfilling a community dream. The university operates on the three core values of dignity, harmony, and paving the way for the future. CBNU utilizes six strategies to follow its vision and maintain its status as an outstanding and leading university in Korea that pioneers education and research.

CBNU initiated the "Project CBNU 2010" in response to the unprecedented competition and rapid changes in the educational landscape brought about by globalization and neo-liberalism. This initiative aims to make CBNU one of the most innovative knowledge-based information institutions—which includes inviting exceptional new faculty members and students, providing the best possible support for faculty research and education, creating an effective environment for learning-based facilities and industry-academia collaboration, and establishing a supportive administrative system.

CBNU remains committed to the Sustainable Development Goals (SDGs) and is striving towards global and regional economic recovery, public health, sustainable living, and identifying solutions for the climate crisis. The university has accelerated its partnerships and collaborative efforts to ensure accessibility to learning and education and encourage student participation in global problem-solving. CBNU hopes to build a safe, sustainable, and hopeful global society for future generations.

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TABLE OF CONTENTS

01

About Chungbuk National University

02

SDGs at CBNU

03

SDG 01: No Poverty

04

SDG 02: Zero Hunger

05

SDG 03: Good Health and Well-being

06

SDG 04: Quality Education

07

SDG 05: Gender Equality

08

SDG 06: Clean Water and Sanitation

09

SDG 07: Affordable and Clean Energy

10

SDG 08: Decent Work and Economic Growth

11

SDG 09: Industry, Innovation and Infrastructure

12

SDG 10: Reduced Inequalities

13

SDG 11: Sustainable Cities and Communities

14

SDG 12: Responsible Consumption and Production

15

SDG 13: Climate Action

16

SDG 14: Life Below Water

17

SDG 15: Life on Land

18

SDG 16: Peace, Justice and Strong Institutions

19

SDG 17: Partnerships for the Goals



ABOUT CHUNGBUK NATIONAL UNIVERSITY

With fifteen colleges and nine graduate schools, Chungbuk Provincial College—elevated to the rank of Chungbuk National University (CBNU)—continues to expand quickly. The Ministry of Education chose CBNU in 1999 for the “Brain Korea 21 Initiative.” The ministry also named CBNU the “Best University” in 2003 under the project for developing regional universities. To develop into a world-leading university, CBNU has prepared and is successfully pursuing the 9th Comprehensive Development Plan for 2022–2026.

CBNU provides creative and convergently tailored education and fosters global talent. The university’s simplified research administration process encourages a balanced, high-quality research infrastructure and environment. The university also amply supports its students and the local community in sensitization and community building. Additionally, the university’s operational efficiency and trusted administrative services create a healthy, shared learning environment with mutual respect and cooperation.



33,000
Students



100
Programs



3
Campuses

CBNU has developed and expanded numerous strategies following the SDGs. The university facilitates industry–academia cooperation to foster economic growth, provides start-up support, and encourages innovative solutions to global problems. It believes that human rights form the crux of most global issues today. It has, thus, strived to build awareness among its students, staff, local community, and partners through collaborations and partnerships.

CBNU is encouraging human rights-related efforts in accordance with the SDGs by organizing human rights conferences throughout the region and growing participatory programs in collaboration with regional human rights-related organizations.

To safeguard and advance the human rights and interests of CBNU’s members on campus, the Chungbuk National University Human Rights Center was founded with direct presidential authority.

The Human Rights Center is responsible for preventing and resolving human rights breaches resulting from various circumstances, including sexual harassment and violence. It has two counseling centers: one for gender equality and the other for human rights. Through violence prevention education and human rights lectures and symposiums, it aims to promote an understanding of human rights among members. The center makes every effort to establish and maintain an environment of mutual respect at CBNU, where students and staff are valued and encouraged to work together.





NO POVERTY

Chungbuk National University has implemented numerous measures to ensure that barriers of income and financial hardship do not prevent access to education, entrepreneurship, economic innovation and experiences connected to campus life for its students. The university also actively engages with local community businesses and offers training and financial support for the growth and wellbeing of the local and regional economy. University-industry and university-community collaborations and partnerships regularly contribute to the financial wellbeing, growth, and quality of life of its campus and local community.

EDUCATION AND LEARNING SUPPORT

The university provides funding support through a robust scholarship system that identifies students from low-income backgrounds who are facing financial hardship in repaying loans and are supporting family through part-time work and demonstrate a potential and enthusiasm for learning. Scholarships like the Angel Scholarship create a stable learning environment for those with economic difficulties. The university also provides educational support to improve access to basic services for students and local residents, through life skills education and cultural experiences which can significantly improve quality of life. Chungbuk National University provides support for community-linked services to contribute to policy diffusion by concentrating Cheongju's welfare policies on areas related to daily life, to provide social service support due to the increasing demand for various educational support and cultural services, and to improve the basic learning skills of local elementary, middle, and high school students and support adult literacy education. In the future, the university plans to continue life-related education and services in the community and promote development by supporting students in their community contribution activities.

ANGEL SCHOLARSHIP STATUS (2020~2022)

| Academic year | Number of recipients | Amount |
|---------------|----------------------|--------|
| 2020 | 87 | 52,400 |
| 2021 | 79 | 49,133 |
| 2022 | 61 | 35,600 |

LABORATORY SPECIALIZED STARTUP LEADING UNIVERSITY PROJECT (FINANCE)

Professor Yoo Hyeon-Jeong of Consumer Studies was selected as the 17th president of the Korea Consumer Policy Education Association. The Korean Society of Consumer Policy Education was established in 2005 to promote consumer welfare through exchanges with consumer-related organizations such as consumer academia, the government, companies, and consumer groups. It publishes the journal 'Consumer Policy Education Research,' registered with the National Research Foundation of Korea, four times a year. It also publishes and holds regular general meetings and academic conferences twice a year. Professor Yoo Hyeon-Jeong was also appointed as the Director of the Consumer Harm Prevention Bureau of the Ministry of Food and Drug Safety.

Through this project, the university aims to boost technology-based startups by providing comprehensive support, including the discovery of startup items, company establishment, follow-up assistance for universities with excellent research capabilities, personnel dedicated to startups, and startup-friendly systems.

2022
16
Companies
1.4B
Korean Won

Achievements in 2022 Commercialization Support

24
Companies

1.9B
Korean Won

Major achievements (within the period of agreement with founders)

2.5B
KRW in sales

52
Newly Hired Persons

62
Intellectual Property Rights

2
Investment Attraction Cases (360M KRW)

BUSINESS AND ECONOMIC GROWTH SUPPORT

Chungbuk National University supports the local community by fostering financially and socially sustainable businesses through various educational and resource initiatives, including mentorship programs, training workshops, and access to university facilities. These programs also extend to sustainable business startups in the community, offering education, camps, consulting, and competitions.

The university aids early-stage startups with commercialization funds and specialized programs to enhance their business competencies. In the future, it aims to establish a comprehensive 'one-stop startup support platform' and expand infrastructure for startups. The university plans to structure startup networks in regional hubs, encourage graduate students to lead tech startups, maintain a top position in the Ministry of Education's Student Start-up Team 300, develop global startup education programs and networks, and serve as a hub itself for startup education through partnerships with key universities.

Total Subsidies for Start-ups - 127,304 KRW
Total Subsidies for Programs - 995,294 KRW
(As of 2022)

PARTICIPATION IN POLICIES FOR POVERTY ERADICATION

Chungbuk National University actively participates and develops policies aimed at the eradication of poverty. Some activities include support for disaster victims and vulnerable groups through MOUs and volunteer activities, building systematic partnerships to improve the quality of life and solve living problems of vulnerable groups through networking, conducting social protection activities for disaster victims and socially vulnerable groups, and encouraging children's emotional growth and sense of accomplishment through mentoring. In the future, the university aims to develop support programs for families affected by COVID-19 and vulnerable groups in the community and operate mentoring programs for local children involving students majoring in relevant departments.

| Academic year | Program name | Content | No. of participants | Budget |
|---------------|--------------------------|--|---------------------|--------|
| 2020 | Baradabom (Gazing) | Mentoring and art performance | 40 participants | 1,689 |
| 2021 | Majuhaebom (Facing) | Development support and emotional cultivation by learning through play & caregiver stress relief | 92 participants | 6,700 |
| 2022 | 2022 Majuhaebom (Facing) | Development support and emotional cultivation by learning through play | 68 participants | 5,215 |



ZERO HUNGER

Chungbuk National University implements various measures to ensure that the campus community remains well-nourished and has access to healthy meals. The food waste management program ensures that the university maintains a diligent check on waste. The university restaurants provide meals and ingredients catering to the campus community's religious and health preferences, thus minimizing the wastage of food and food products. Students have access to support meals during intense study periods for examinations. The university also utilizes locally sourced produce for sustainability and economic growth. Community events and learning programs also engage residents and students to understand, participate, and promote sustainable agricultural practices.



DISTRIBUTION OF LATE-NIGHT SNACKS FOR SUPPORTING HARD STUDY

Academic year of 2020



Academic year of 2021



Academic year of 2022



COMMUNITY OUTREACH

Chungbuk National University offers free and paid agricultural experience opportunities to students, local community farmers, and food producers. The university seeks to support currently enrolled students in becoming experts in the agriculture industry and specialists in national food security based on the undertaking of comprehensive on-site training, education, and programs.

Chungbuk National University provides university facilities access (e.g., to labs, technology, plant stocks) to local farmers and food producers to improve sustainable farming practices. The university implements new projects that provide professional support for practical training and education in the forest, operates a forest-based healing program, and works towards offsetting forest carbon.

The university also implements measures to improve the preparedness of residents to increase Korea's international competitiveness in the agricultural industry. It nurtures agricultural experts with broad knowledge through an intensive capability enhancement education program with professors and specialists in agriculture-related fields.

THE AMOUNT OF FOOD WASTE PROCESSED

FOOD WASTE GENERATED FROM TWO STUDENT RESTAURANTS

| 2020 | 2021 | 2022 |
|----------|----------|----------|
| 20,100kg | 16,026kg | 37,560kg |

FOOD WASTE GENERATED FROM FACULTY RESTAURANTS

| 2020 | 2021 | 2022 |
|----------|----------|----------|
| 14,760kg | 13,031kg | 18,200kg |

FOOD WASTE GENERATED FROM THE DORMITORY

| 2020 | 2021 | 2022 |
|----------|----------|-----------|
| 30,180kg | 80,140kg | 133,539kg |

CAMPUS MEASURES

Implementation of a food waste management system based on various measures to facilitate the minimization of food waste. A professional recycling company ensures food waste recycling. Additionally, the university's research groups use food waste for research purposes. In the future, the university plans to launch leftover reduction campaigns to lower the amount of food waste generated and participate in low-carbon green activities to shape food culture based on a positive feedback loop.

Chungbuk National University intervenes to target hunger among students and staff (e.g., supply and access to food banks/pantries). It operates a program providing food to students during examination periods. These "Late-Night Snacks for Supporting Hard Study" encourage student academic performance and ensure they remain well-fed during intense study sessions.

Chungbuk National University ensures a variety of food options on campus by offering meals that suit the taste of its members and residents and holding new recipe development events. It provides sustainable food choices prepared with locally sourced ingredients.

NUMBER OF RESTAURANT FACILITY USERS

Eunhasu Restaurant

| Academic year | Number of users |
|---------------|-----------------|
| 2020 | 40,009 |
| 2021 | 38,763 |
| 2022 | 47,850 |

Byeolbit Restaurant

| Academic year | Number of users |
|---------------|-----------------|
| 2020 | 65,194 |
| 2021 | 64,421 |
| 2022 | 91,876 |

Hanbit Restaurant

| Academic year | Number of users |
|---------------|-----------------|
| 2020 | 17,241 |
| 2021 | 9,301 |
| 2022 | 91,477 |



3 GOOD HEALTH AND WELL-BEING




GOOD HEALTH AND WELL-BEING

Chungbuk National University is deeply invested in the health and wellbeing of its campus community and the local residents in the region. The lingering effects of COVID-19, along with the increase in lifestyle-based diseases, indicate that good health will be a competitive advantage. Based on the fact that exercise improves health, the university will provide students with high-quality educational opportunities contributing to a better sports culture, and serve as a stepping stone for the healthy lives of university members and residents. Taking the lead in improving physical strength of students, faculty, and citizens, the university maintains and operates a state-of-the-art sports complex with cutting edge facilities and globally renowned coaches at reasonable prices and is rapidly gaining popularity in the region. The Chungbuk National University Sports Center is making the utmost effort to take responsibility for the health of students, faculty, and residents, and to contribute to the community. The university also encourages healthy lifestyles among campus members by actively promoting 'No Smoking' campaigns and events. The College of Life Sciences at Chungbuk National University also conducts annual programs to promote healthy eating habits and provide nutritional information to local residents. There are outreach and social work programs held to facilitate hygiene and well-being among local communities. Mental health awareness and well-being campaigns are also regularly conducted to provide students a support system to deal with the pressures of academic life.

CBNU SPORTS CENTER FOR PHYSICAL WELL-BEING

The Chungbuk National University Sports Center is a high-end sports facility with four upper floors and one basement floor, featuring top-notch facilities and 13 expert coaches, including former national team members and domestic/international champions. It offers tailored programs for its members. The under-construction outdoor facility will include five tennis courts, two basketball courts, two futsal courts, a shower room, and a parking area for 328 vehicles. The university plans to collaborate with existing sports centers and complexes, aiming to host national and international competitions, contributing to local sports culture development. In the future, the center intends to introduce a six-month program, including psychological sessions, yoga, pilates, and GX, through a partnership with the Chungbuk Cancer Survivors Integrated Support Center.



TOTAL BUDGET: 26.7 billion KRW



FACILITIES: Swimming pool, squash court, gymnastics court, screen golf practice range, conference room, VIP room, 900-seat indoor gym, changing rooms, a shower room, a machine zone, a GX/PT room, a room for coaches, counseling room, and body type analysis room, free weight zone, pilates and yoga room, stretching zone, and shower room.



MEMBERS: fitness center (552), swimming(232), squash(111), yoga(57) and Pilates(50) are the registered number of members.



OUTDOOR FACILITY: 16.719 billion Korean Won was invested in the small playground site for outdoor sports facility.

DIET AND NUTRITION FOR SENIOR CITIZENS

Chungbuk National University created a 'Diet and Nutrition Information Guidebook' for local senior citizens as part of the National University Development Project's Dietary Capacity Building Program. The 'Guidebook' comprises six themes with practical meal plans for healthier eating and personal health management, including tracking daily water intake. Additionally, a 'Nutrition Kit' containing essential nutrients for the elderly was produced in limited quantities to allow seniors to practice the meal plan outlined in the guidebook. This Kit, together with the guidebook, will be distributed to 50 seniors in Cheongju City through the Chungbuk Senior Welfare Center.

MENTAL AND EMOTIONAL WELL-BEING

The Health Center's Student Life Counseling Center of Chungbuk National University held the "Are You Okay? Heart Sharing Relay Campaign" for enrolled students where participants shared their warm feelings with each other by choosing their favorite postcard to send best wishes and wrote messages sympathizing with their difficult university life, including the midterm exams. A total of 659 students participated in the three-day campaign, which was a great success. In response to students' opinions that they would like to have more such campaigns that provide heartwarming emotions in the COVID-19 era, the center plans to organize events to reach out to students every year.

COMMUNITY OUTREACH

The university conducts outreach programs, including student volunteer initiatives, to enhance health and well-being. These programs cover areas such as hygiene, nutrition, family planning, sports, exercise, aging, and other health-related topics. One such program, the Haedream Volunteer Activity, assists student volunteers in improving living conditions in low-income households by wallpapering, replacing floor paper, supporting flood damage restoration, and revitalizing local facilities through mural painting. Additional volunteer programs involve environmental cleanups in parks and public spaces, blood donation drives, and rural area assistance.

SMOKING CESSATION ACTIVITIES

The Chungbuk Tobacco Support Center at Chungbuk National University and the Chungbuk Industrial Health Center of the Korean Industrial Health Association signed an MOU for smoking cessation support services. The center will offer smoking cessation counseling, training, information, and campaigns to healthcare institution employees of the Chungbuk Industrial Health Center. It focuses on specialized smoking counseling for individuals who face challenges with existing national smoking cessation support services.

The Chungbuk Tobacco Support Center also hosted the '2022 Chungbuk Smoking-Free Environment Creation Cultural Festival' to promote smoke-free culture in North Chungcheong Province. Attendees included Chung Eui-Bae, acting President of Chungbuk National University, public health center practitioners, students, and related organizations. The festival featured project contest exhibits, smoking cessation messages, e-cigarette awareness surveys, and stress index measurement. Additionally, a smoking cessation campaign was conducted at an apartment complex, offering information and free counseling and supplies for those looking to quit smoking.



QUALITY EDUCATION

CBNU provides free courses and access to campus facilities, equipment, and online resources, making education and learning open to everyone. The university hosts ad hoc and programmed events open to the general public, such as public lectures and community educational events. The university also conducts short courses for people unable to attend classes: executive educational programs and vocational training to nurture human resources that can help revitalize the local economy. Other educational outreach activities beyond the campus by the university include those within local schools in the community, including voluntary student-run schemes and overseas volunteer activities. A lifelong learning policy ensures that learning and knowledge sharing are accessible to all, regardless of ethnicity, religion, disability, immigration status, or gender.

ACCESSIBILITY OF EDUCATIONAL INFRASTRUCTURE

OPEN ACCESS TO LIBRARIES

The university has invested in new and expanded libraries and environmental improvements, various reading spaces and cultural facility spaces, and support services for teaching and research.

THE FIRST BARRIER-FREE SHARING PATH OF 'HAPPINESS ROAD'

A storytelling program for local residents and members has been used as an opportunity for university comparative studies programs.

JOINT USE OF RESEARCH EQUIPMENT

Provision for students, researchers, and industries of instruments and sample analysis necessary for basic science research and technology development and opportunities to analyze using cutting-edge research equipment, contributing to the realization of experimental and practical education. The laboratory also organizes seminars on various expensive high-tech devices to exchange the latest information for research and development.

OPENING OF SPORTS CENTERS AND SPORTS FIELDS

Chungbuk National University CBNU Sports Center is a sports welfare facility for promoting physical education activities of members of the university and local residents and provides a safe and comfortable place for faculty, staff, students, and local residents.



CHUNGBUK PRO MAKER CENTER

The first Maker Space specialized lab in the Chungbuk region that provides a variety of making services as a window for creative education and innovative idea realization among Chungbuk local residents, Chungbuk University students, and faculty members, and serves as a base for education and experience to create prototypes and start-ups.

CHUNGBUK NATIONAL UNIVERSITY MUSEUM OPENING AND EXHIBITION

The museum is faithful to its function and role as a university museum by focusing on academic investigation and research, international academic exchange, and lifelong education to clarify the reality of Zhongyuan culture, and it operates an open cultural space and an open learning space in which everyone can participate.



The 'Dream Scientist Cultivation' project



15

High schools



236

Participants

University-linked career enrichment program



321

Session



4,162

Participants

COMMUNITY EVENTS

OPERATION OF LIBRARY PROGRAMS WITH RESIDENTS

Opportunities and events to engage the local community to cultivate culture and get in touch with the humanities.

OPERATION OF SOCIAL INTEGRATION PROGRAMS FOR LOCAL IMMIGRANTS

The social integration program is provided to immigrants living in the Chungbuk region to facilitate easy integration for immigrants with local people in the local community.

ONLINE COURSES FOR RESIDENTS

Humanities lectures and symposiums for students and residents to convey various humanities values and knowledge and provide equitable access to the humanities for community members.

PET CAREER AND VOCATIONAL EXPERIENCE AND EDUCATION COURSES

Pet medical treatment, vocational experience, and education courses related to pet behavior for elementary, middle, and high school students.

ACADEMY OF SOCIAL SCIENCES AND LIBERAL ARTS COURSES

Courses to cultivate social science literacy among residents and improve the quality of cultural life.

SPECIAL CAREER LECTURES FOR LOCAL HIGH SCHOOL STUDENTS

Through special lectures by in-school experts in various fields, support for creative activities in high schools in Chungbuk-do provides opportunities for educational experiences tailored to career and aptitude.



₩24.9 billion

Library expansion



₩500 million

Citizens' complex cultural space



₩9.2 billion

Environmental improvement work



GENDER EQUALITY

Chungbuk National University is fully committed to offering employment assistance and promoting startups for women returning to work after a significant career gap. The university aims to do this by leveraging its technological prowess and state-of-the-art facilities. The university's Human Rights Center and Gender Equality Counseling Center also have robust measures for the prevention of discrimination, gender-based violence, and maternity support, as well as vocational training for women who face issues with accessibility to quality education.

CBNU 2022 SEXUAL HARASSMENT PREVENTION MEASURE/ EDUCATION RATING

| SEXUAL HARASSMENT PREVENTION MEASURE | Sexual harassment prevention education | Commercial sex prevention education | Sexual violence prevention education | Domestic violence prevention education |
|--|--|-------------------------------------|--------------------------------------|--|
| Institution Rating | 84 points | 84 points | 79 points | 79 points |
| Staff | 78% | 78% | 78% | 78% |
| Senior positions | 76% | 76% | 58% | 55% |
| Head of the organization | 100% | 100% | 76% | 76% |
| Customized education for senior positions | Yes | No | Yes | No |

- Grievance counsellor designation and completion: designated, uncompleted
- Grievance counseling desk: installed
- Sexual harassment prevention manual: present
- Sexual violence prevention manual: present

AGREEMENTS

The Chungbuk Pro Maker Center of Chungbuk National University signed an MOU for the "Promotion of Manufacturing Startups and Creation of Women's Jobs through Maker Activities" with the Chungbuk Women's Return-to-work Support Center. Through this MOU, these two organizations have committed to promote women's entrepreneurship and foster cooperation, aiming to operate academies, forums, and workshops to expand their networks.

This MOU aims to identify demand-driven companies and promote the dissemination of their activities through collaboration with resident organizations, Chungbuk National University, family businesses, technology transfer institutions, assessment agencies, public R&D organizations, and technology licensing organizations (TLOs).

COMPREHENSIVE SUPPORT SYSTEMS (POLICIES AND MEASURES) FOR GENDER EQUALITY

The Chungbuk National University Lifelong Education Center inaugurated the "Training Courses for Traditional Korean Cuisine Chefs and Institutional Foodservice Chefs." This initiative is a segment of the university's support project, designed to aid women from regions with suboptimal educational conditions who are seeking opportunities to return to work following career interruptions. The Lifelong Education Center offers this training course with government funding, gearing students towards the Traditional Korean Cuisine Chef qualification. Once qualified, participants will be linked with the Chungbuk Women's Return-to-Work Support Center for job opportunities and matching within pertinent sectors. The center also plans to run a healing horticulture program for pregnant women and individuals experiencing life stress.

The Chungbuk Women's Foundation hosted the 'Second Chungbuk Gender Equality Policy Forum' at the Chungbuk Future Women's Plaza, to focus on improving gender violence response policies. It stated that this forum is organized to review Chungbuk's policies from a gender perspective and set the right direction.

The "Chungbuk National University Workplace Daycare" is an initiative that aims to foster a harmonious environment where work and family life coexist, alleviating childcare burden, and enhancing the welfare of its faculty, staff, and students. Ahead of the launch, the university engaged with its community, seeking diverse input and designing programs tailored for the children in daycare. Maternity protection services are provided as part of comprehensive support system for women and include workplace daycare, women's lounge, and maternity leave.

The Gender Equality Counseling Center provides and operates various programs to establish gender equality policies within the university and promote proper gender awareness. The prevention education on sexual harassment, violence, trafficking, and domestic violence, provided to faculty, staff, incoming, and current students, is expected to promote wholesome sexual health awareness and foster gender consciousness. The gender equality promotion plan for faculty employment seeks to establish and anchor a foundation for gender equality on campus and will operate a committee for gender equality in faculty employment to inspect and verify plan implementation and outcomes. The university is also actively recruiting female faculty members to the human resources committee which oversees key staffing policies, with the goal of amplifying the roles and participation of faculty from underrepresented genders.



Our aim is to launch comprehensive support initiatives, that covers everything from identifying demand-driven companies to technology commercialization, prototype production, and transactions. This is to enhance the business endeavors of women with career interruptions and budding enterprises.



- Oh Kyung-sook, Director of the Chungbuk RTW Center

The Human Rights Center of Chungbuk National University leads efforts to promote a safe and gender-equal campus culture. They have entered into an MOU with the Young Women's Christian Association (YWCA)



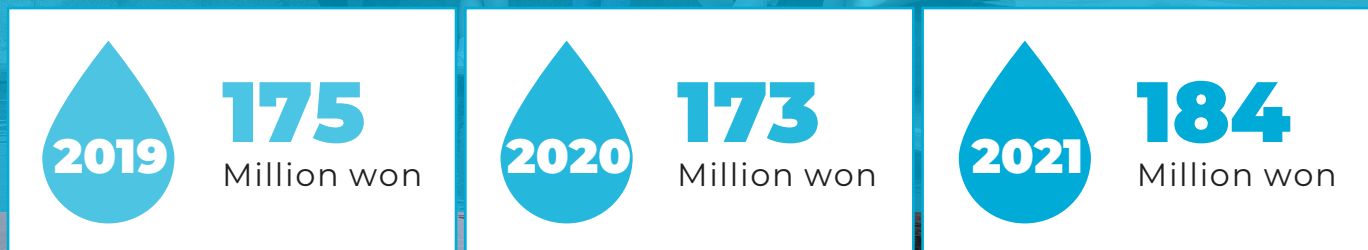


CLEAN WATER AND SANITATION

CBNU demonstrates its commitment to clean water and sanitation through various policies and measures on campus. The university has a designated wastewater treatment system and contributes to the conservation of water environments by entrusting treatment of wastewater generated from laboratories. The university has also initiated future planning measures such as the facilitation of safe research activities by consigning all wastewater generated within the laboratory, regular laboratory inspection and management to reduce generation, and compliance and implementation of relevant laws. The university minimizes water use by landscaping using water-saving and drought-resistant plants and creating a pleasant environment for members and local residents through continuous management and landscape improvement.



PERFORMANCE STATUS OF ON-CAMPUS LANDSCAPING MANAGEMENT – Construction amount



COLLABORATION FOR RIVER IMPROVEMENT

The 'Chungbuk Miho River Water Forum', was held to create an ecological river where people and nature can coexist; experts' opinions on water environment issues in North Chungcheong Province were presented. This forum was jointly prepared by the Chungbuk National University regional customized smart energy and resource circulation convergence technology education research group (4th level BK21) and the Chungbuk Green Environment Support Center and was held at the Chungbuk National University College of Engineering.

At the forum, approximately 50 people, including department heads and students from CBNU, academia, research, government, industry, and the private sector, discussed ways to improve the environmental and social value of the Miho River in Chungbuk. The 'Miho River water quality improvement plan implementation status and future plan', 'Miho River water quality and ecology status and management plan', and 'Miho River coexistence' were some of the topics presented and discussed.

Chungbuk Province held a policy discussion on the direction of water resource development in Chungbuk Province in collaboration with the Chungbuk Water Forum at the Cheongju International Eco Complex in Munam Ecological Park. The event was attended by about 70 people, including organizations representing water-related fields, private organizations, residents, and academics. At the event, the Governor's Commendation was awarded to 31 people, including public officials and civilian organizations, who have contributed to the development of water management in North Chungcheong Province. The event also included river purification activities in the Miho River.



The upper Chungcheongbuk region (Jincheon and Eumseong) is dotted with industrial facilities, livestock farms and farmland, and the middle and lower reaches (Cheongju and Sejong) are experiencing rapid population growth and industrialization. As the water pollution load is increasing due to the increase in land area (impervious area), follow-up measures to improve water quality jointly by the public, private sector, and academia are needed.



-Dr. Hwang Hyeon-dong

BUSINESS AGREEMENT TO IMPROVE THE HEALTH OF THE WATER ECOSYSTEM

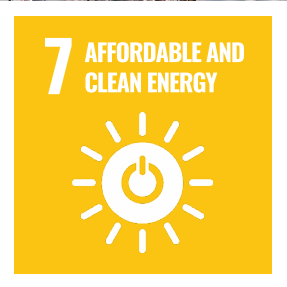
Chungbuk National University Industry-Academic Cooperation Group signed a business agreement with the Korea Water Resources Corporation (K-water) Environment Headquarters for the 'development of intelligent turbid water occurrence prediction and aquatic ecosystem management technology in response to abnormal rainfall'. Both organizations will contribute to improving the health of the aquatic ecosystem by establishing a foundation for turbid water prediction and aquatic ecosystem management technology.

RECOGNITION FOR UNIVERSITY STUDENTS IN THE FIELD OF WATER MANAGEMENT AND SANITATION

Graduate students from Chungbuk National University's Waste Resource Research Laboratory in the Department of Environmental Engineering received numerous awards as excellent presenters at the 2022 Spring Academic Research Conference hosted by the Korea Waste and Resource Circulation Society. The winners presented on topics such as 'The inhibitory effect of urea on ammonia conversion by injection of phenyl-phosphorodiamidate', 'Application of biological pretreatment using food waste acid fermentation coenzyme to improve biogas production efficiency of surplus sludge' and 'Improving the efficiency of biohydrogen production from food waste through injection of conductive materials.'

A graduate student from the Department of Environmental Engineering won the Best Paper Award in the English Paper Presentation Contest at the 2022 Korean Society of Water Resources Conference for her paper titled, 'Estimation of greenhouse gas emissions and footprint from Daecheong Reservoir using G-res Tool'. The student is conducting research in close collaboration with international experts from UNESCO/IHA, and based on such efforts and achievements, she won the first place in this English paper presentation contest.





7 AFFORDABLE AND CLEAN ENERGY



AFFORDABLE AND CLEAN ENERGY

Chungbuk National University has implemented various policies to promote the Sustainable Development Goal of affordable and clean energy. The campus streamlines and minimizes energy use and applies energy-related standards for each facility field to comply with sustainable energy facility standards. To double the global energy efficiency improvement rate by 2030, the university uses appropriate building materials such as insulation and windows for new construction and remodeling projects and aims to achieve the building energy efficiency level 1* certification. The university has also installed electrical and mechanical, geothermal and solar power generation facilities, and also operates a service to facilitate the use of public transportation and environmentally friendly vehicles to activate the carbon reduction system. An efficient greenhouse gas target management system is in place to reduce the total national greenhouse gas emissions by 40% in 2030 and strengthen climate crisis adaptation measures. The campus has installed high-efficiency LEDs, premium motors, high-efficiency inverters, geothermal heat, and solar power generation facilities as a means to expedite this goal.

FOREST CARBON OFFSET PROJECT

CHUNGBUK NATIONAL UNIVERSITY NAESU ACADEMIC FOREST

Chungbuk National University is the first university in the country to pursue a transaction-type social contribution forest carbon offset project and received registration and approval from the Forest Carbon Center of the Korea Forestry Promotion Agency.

Through this project, Chungbuk National University contributes to the government's policy of 2050 carbon neutrality, promotes the public value of forests and the forest carbon offset system, and provides a venue for education and research on forests, realizing ESG management and social value as a central university.

The academic festival 'Come to the Department of Consumer Studies' booth for students, faculty, staff, and local residents was held under the theme of 'Becoming a green consumer by practicing low-carbon, eco-friendly living', and hosted by the 12th Daum Student Council of Chungbuk National University's Department of Consumer Science. It was organized by Chungbuk National University's College of Human Ecology and Chungbuk Green Purchasing Support Center to raise awareness of the climate crisis among school members and local residents. This was held during the Gaesindaedong Festival and highlighted the importance of carbon neutrality and sustainable green consumption.

| | |
|---|-------------------------------|
| Project area | 142.81 ha |
| Carbon absorption amount | 691.45 tCO₂ |
| Cumulative carbon absorption amount until 2052 | 20,744 tCO₂ |

2022 CARBON NEUTRALITY UNDERSTANDING FORUM

The '2022 Carbon Neutrality Understanding Forum', jointly hosted by Chungbuk National University's National Risk Management Research Institute and Chungbuk Province, discussed the topic of 'The era of climate crisis, the first step toward wise overcoming.' The participants agreed that implementation of carbon neutrality is an irresistible demand of the times and can only be achieved through the joint efforts of all entities, including the government, local governments, companies, and individuals, and the role of the local community and the spread of an efficient culture of practice.

FUTURE PLANS FOR SUSTAINABLE ENERGY STANDARDS COMPLIANCE

The university has a number of future plans to comply with sustainable energy standards, as well as reduce carbon and greenhouse gas emissions.

- The campus has obtained preliminary certification for design service for Chungbuk National University's new high-tech lecture building construction scheduled to begin in 2023.
- The campus has obtained preliminary certification for BTL design of Chungbuk National University College of Agriculture and Life Sciences research building scheduled to begin construction in 2023.
- The university plans to install electric vehicle charging stations and dedicated parking lots to increase convenience for electric vehicle users
- There are plans to introduce additional bus routes to expand public transportation use.
- The university hopes to achieve the national mid- to long-term reduction goal (reducing greenhouse gas emissions by more than 40% compared to 2018)
- It will expand new and renewable energy facilities (high-efficiency LED, premium electric motor, high-efficiency inverter, geothermal heat, solar power generation facility, etc.)

Environmentally friendly car parking fee reduction

324 units

(10.4% of total 3,115)



For environmentally friendly vehicles,

50%

discount on parking fees



City bus route operation and bus stop installation project

1 route operated

18.6M KRW for cost

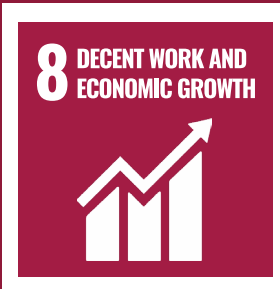


Carbon neutrality is the most urgent measure to ensure the survival of humanity. The climate crisis is the most dangerous global crisis with no time to waste, so we must emphasize on carbon neutrality and take bold action. This is the only solution



-Director Lee Jae-eun





DECENT WORK AND ECONOMIC GROWTH

Chungbuk National University seeks to provide a fair and safe environment on campus for all its students, staff and external vendors. The staff association maintains a set of regulations, establishing an organization to contribute to the development of the university through democratic management and creative thinking, and to promote the rights and interests of employees. The university maintains open communication channels so that the opinions of all employees can be collected and promoted, and all activities are operated in connection and cooperation with the four employee organizations (Staff Association, Public Service Association, Academic Affairs Association, and the University Union). To ensure equal labor rights when concluding service contracts with external companies and hiring contract employees, the university has a policy of guaranteeing the equivalent rights of workers when outsourcing activities to third parties. The university also recognizes unions and labor rights (freedom of association and collective bargaining) for all, including women and international staff. Numerous training and competitive opportunities are available to students to increase their employability. Sample support is provided to start-ups and the human rights center ensures a safe and equitable campus environment for the entire university community.

2021 JOB (COMPANY) ANALYSIS CONTEST AND AWARDS CEREMONY

- Participants : 27 teams (292 people)
- Duration :December 28, 2021 to February 8, 2022



UNIVERSITY JOB CENTER

- Chungbuk National University Job Center held the '2021 Job (Company) Analysis Contest and Awards Ceremony' to help students in the 'Job Dream Club'. The club is comprised of current students and graduates, and the contest enabled them to accurately identify their desirable jobs and engage in job hunting activities, thus strengthening their employment capabilities.
- The Job Center operates the '2022 Youngkkeul Job Project' as part of intensive management of graduates with the purpose of improving graduates' employment capabilities. The project, which has been in operation for its second year since 2021, focuses on improving the employment capabilities of graduates for timely employment in their desired company and job, and supports youth employment in various forms.

HUMAN RIGHTS CENTER

Chungbuk National University Human Rights Center takes the lead in creating a safe campus culture free of gender violence and realizing gender equality.

- The Chungbuk National University Human Rights Center and the Cheongju YWCA Women's Comprehensive Counseling Center signed a business agreement to look into and provide support and counseling for victims of sexual harassment and violence on campus.
- The Center is establishing a human rights counseling center and a gender equality counseling center to protect the human rights of its members, improve their rights and interests, and create a healthy sexual culture within the university. It cultivates human rights awareness and prevents human rights violations by various factors through educational and awareness campaigns.



STARTUP INCUBATION CENTER

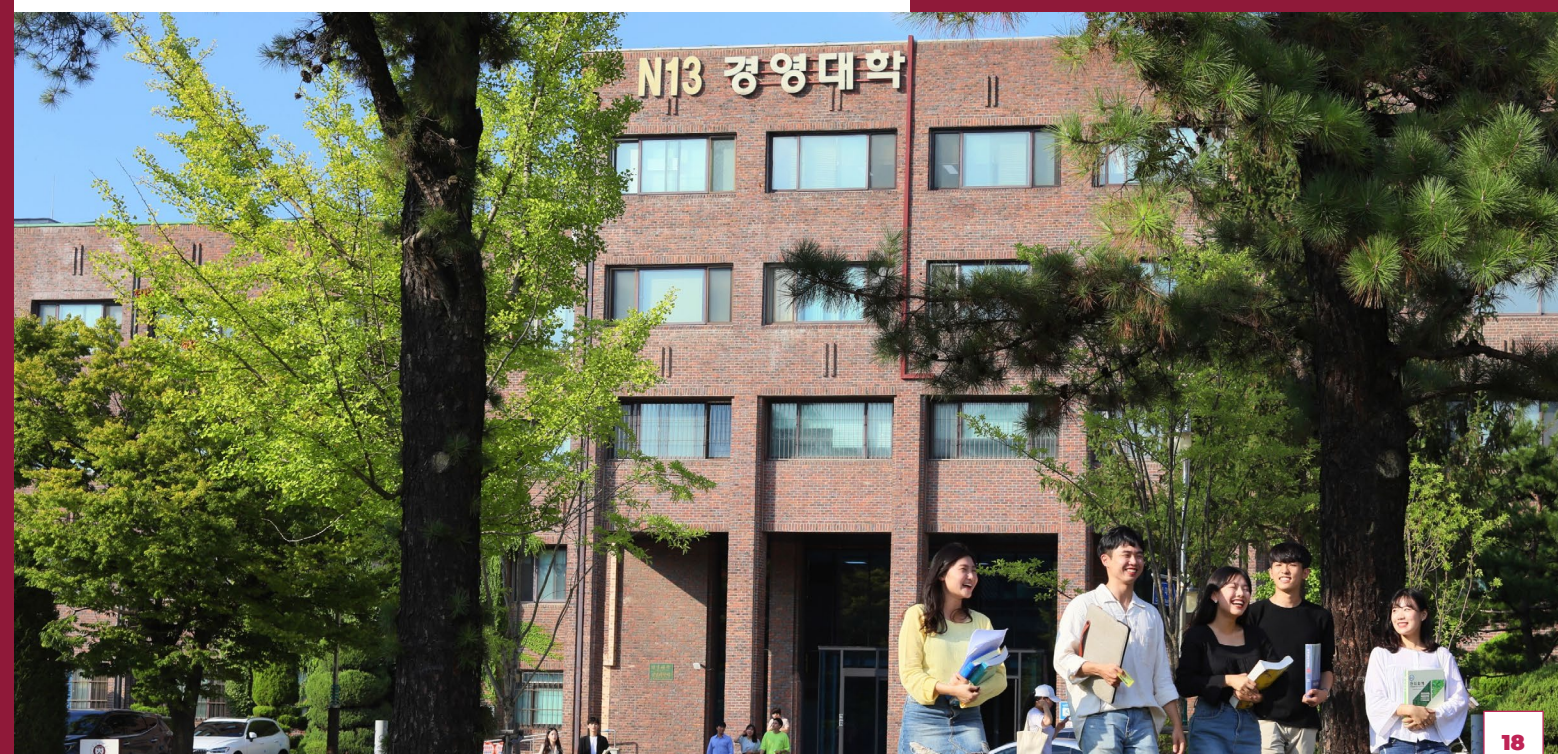
- Obtained the highest grade of 'S' in the business incubation center management evaluation hosted by the Ministry of SMEs and Startups.
- Provided investment education and pitching mentoring to two companies that were finally selected for the 2021 K-Camp Startup Crowdfunding Round and received the Minister of SMEs and Startups Award.

SOCIAL INSURANCE SUBSCRIPTION STATUS

| Academic year | Number of subscribers |
|---------------|-----------------------|
| 2019 | 1093 |
| 2020 | 576 |
| 2021 | 829 |

JOINT TRAINING CENTER

- Held a 'Big Data Smart Control Professional Training Course' as part of the Chungbuk Employment Stability Preemptive Response Package Support Project
- The Chungbuk Employment Stability Preemptive Response Package, 'New Growth Industry (Information and Communication) Customized Professional Training and Recruitment Linkage Support Project' is a project hosted by the Ministry of Employment and Labor and Chungcheongbuk-do, and the 'Big Data Smart Control Professional Training Course' is a new growth industry in Chungcheongbuk-do. This is a professional manpower training project based on the needs of companies in the communications (ICT convergence, big data, smart control/process) industry.
- Contributes to the growth and job creation of companies in the secondary battery front and rear regions through the 'Regional Innovation Project' and the 'Regional Industry Tailored Human Resources Development Project'. By producing many graduates from its 4 prospective hire training courses and 19 employee improvement courses, it is strengthening the competitiveness of local companies and increasing the local employment rate.





INDUSTRY, INNOVATION AND INFRASTRUCTURE

Chungbuk National University is committed to spearheading the cultivation of talents to lead the regional cosmetic industry and contributing to advancing the biohealth industry in the Chungbuk region by nurturing top-notch talents and providing them with quality jobs, leading to the development of both the region and the industry.

The Chungbuk Promaker Center facilitates numerous academia-industry collaborations and partnerships and is poised to be Chungbuk's future growth catalyst. Given the urgent need to establish an innovative ecosystem to overcome current global challenges, Chungbuk National University strives to foster future talents necessary for regional innovation, thereby creating a positive feedback loop where these talents can contribute to regional development. The Chungbuk Pro-Maker Center will play a solid foundational role in the success of manufacturing startups in the Chungbuk region based on information sharing with makers and forming close networks with the central and local governments and relevant institutions. The university is committed to fostering the growth of manufacturing startups in the Chungbuk region and endeavors to facilitate job creation through technological startups and play a pivotal role in revitalizing the regional economy. As a result of adopting an openness and sharing strategy in technical commercialization, Chungbuk National University has seen a marked rise in both the number of technology transfers and the associated revenues.

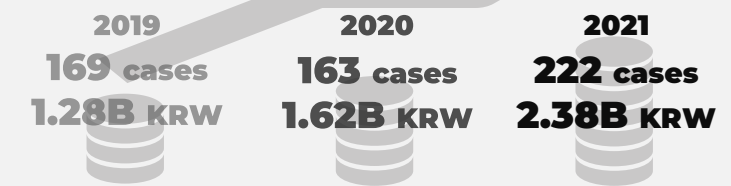
EVENTS BY THE CHUNGBUK PRO-MAKER CENTER

- The 2022 First Chungbuk Makerspace Council Meeting involved 18 participants, including member companies and stakeholders from 11 institutions, discussing strategies for revitalizing and developing makerspaces in the Chungbuk region.
- The Chungbuk Pro-Maker Center concluded "2022 Maker Days," raising awareness of makerspaces and spreading maker culture, attended by startups and entrepreneurs.
- Chungbuk National University is promoting industry-university collaboration through the 'Technology Fusion and Integration Commercialization Program', enhancing community and university benefits through local institutions. This program spearheaded by Chungbuk National University in collaboration with local institutions is a specialized area of the BRIDGE + Project, funded by the Ministry of Education and the Korea Research Foundation, to transform creative assets into practical applications. The 2022 project, designed by Hannam University, Wonkwang University, and Chungbuk University, focuses on bio-material technology.

2022 REGIONAL INNOVATION PROJECT BY THE JOINT TRAINING CENTER

The Joint Training Center of Chungbuk National University hosted the "2022 Regional Innovation Project (K-Battery industry job-seeker-participatory R&D support project): Results Report" Meeting. This report meeting with Solmaterials Inc., Chungbuk National University's research team, and stakeholders discussed the development of a high-conductivity material with a 3D Hybrid nano structure. Participants expressed satisfaction with the project and its improvements. Companies expressed satisfaction with the improvements made through collaboration with the university, while research personnel (jobseekers) appreciated the opportunity to enhance their knowledge and understand R&D trends, thereby enhancing their employability.

TECHNOLOGY TRANSFERS AND ASSOCIATED REVENUES



AGREEMENTS AND COLLABORATIVE PARTNERSHIPS

Chungbuk National University's **Chungbuk Biohealth Industry Innovation Center** is partnering with local governments and enterprises to advance the biohealth industry and nurture outstanding talents. The Bio-PRIDE University-Industry Track MOU aims to address recruitment challenges and nurture talents through customized on-site education. Students enrolled in the program can take tailored training courses from companies, potentially leading to employment opportunities in the biohealth sector.

Chungbuk National University and the **Ministry of SMEs and Startups** have agreed to establish the "SME Contract Department" to enhance human resource inflow to regional SMEs. Accordingly, the university will launch a Cosmetic Industry Department and recruit 10 SMEs-experienced employees. The program aims to foster talent through academic degrees based on industry needs. Its goal is to bolster the innovative capabilities of SME employees and support them in pursuing degrees via a 'work first, study later' approach."

The **Chungbuk National University Gaesin Cultural Center** hosted the "Chungbuk Biohealth Research Outcomes Presentation," showcasing the second-year research outcomes of a local innovation project involving local governments and universities. The event attracted over 600 attendees, aiming to strengthen the project's foundation and foster collaboration among participating entities. The local innovation project, founded on the collaboration between local governments and universities, aims to establish a collaborative system among local innovation institutions, companies, and other related entities.

Chungbuk National University and **14 of its affiliated universities** have been granted a six-year regulatory relaxation due to their re-designation as specialized areas for higher education innovation, allowing customized talent training in region-specific industries.

The **CBNU Chungbuk Pro-Maker Center**, inaugurated in 2022, provides various services, prototype production, and startup opportunities for students, faculty, and locals. The center is the only specialized makerspace lab in the region, divided into green and red zones.



10 REDUCED INEQUALITIES



REDUCED INEQUALITIES

Chungbuk National University strives to maintain a safe, equitable campus where every student, faculty, and staff member receives accessibility, equal rights and opportunities, and fair treatment. Specialized programs for underrepresented groups, such as students from low-income backgrounds or disabilities, gender sensitization, and human rights monitoring, ensure that all members on campus have an enjoyable learning, teaching, and working experience. The university also seeks to improve diversity by providing accessible admission processes for students belonging to minority groups and foreign countries. Chungbuk National University maintains strict policies to prevent abuse of power, discrimination, and harassment.

CAMPUS MEASURES

The university strives to create a culture of equality with stringent measures to prevent the abuse of power. A high-level council determines action plans to eradicate abuse of power. It also discusses associated prevention measures during meetings with administrative department heads. CBNU monitors abuses of power and works towards improving policy effectiveness through team leader-level meetings. The university also conducts surveys and prevention campaigns. It regularly modifies regulations and systems that may deter an equitable atmosphere.

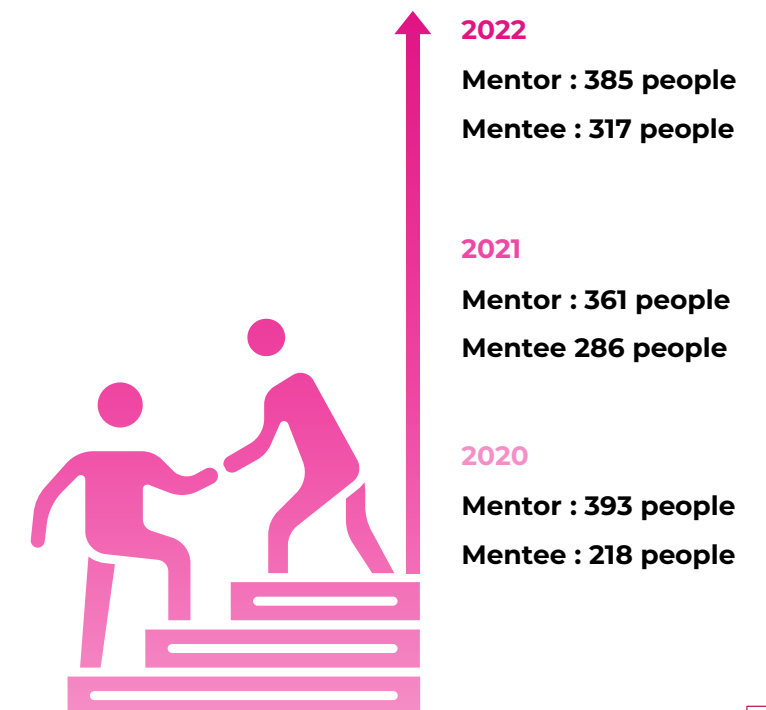
The Gender Equality Counseling Center and the Human Rights Counseling Center operate systems and policies related to human rights and gender equality education to prevent discrimination and harassment.

Invited instructors specializing in violence prevention from the Korea Gender Equality Promotion Agency provide special lectures and face-to-face training. High-ranking officials give specialized training to CBNU students. The university also facilitates online cyber-crime prevention education. Victim relief and prevention activities for violations of human rights and interests, counseling, investigation, research, and educational activities related to sexual harassment and sexual violence, relief and prevention activities for victims of sexual harassment and sexual violence, and the establishment and operation of the steering committee, advisory committee, and investigation committee are some of the measures offered.

CBNU provides mentoring, counseling, and peer support programs to underrepresented and minority groups on campus. Students with disabilities receive accessible facilities and specialized and customized programs for support and capacity building. They also receive access to dedicated support systems and continuous monitoring and evaluation which, in turn, guarantee equal learning rights and employment opportunities.



YEARLY STATUS OF THE DIVISION DEDICATED TO MENTORING INTERNATIONAL STUDENTS



ADMISSIONS

To ensure admission opportunities for students belonging to minority groups, including ethnic minorities, low-income households, non-traditional backgrounds, women, the LGBTQ+ community, individuals on the disability spectrum, and newly-settled refugee communities, CBNU holds a dedicated admissions process that provides equal opportunities for higher education. International students from each country are appointed and used as a support system for activities such as interpretation when promoting various events, including admissions processes. The university continuously participates in study abroad fairs. It also provides consultation to prospective applicants by operating admission information sessions and booths in the local language.

2022 STATISTICS FOR INTERNATIONAL STUDENT SUPPORT

Total number of special admissions (International students)



Total number of global supporters selected



Total number of international exchanges / study abroad fairs





SUSTAINABLE CITIES AND COMMUNITIES

Chungbuk National University conducts in-depth research projects to identify and solve community issues. The projects also seek to find solutions to promote sustainable development and instill social values. Numerous community measures such as community service programs, free learning and consultations, immersion in art and culture, and scientific exploration are offered to local residents as a means of knowledge exchange and sharing. The university facilities are also shared with other institutes, opening a public feedback loop, that ensures that the local community's thoughts and suggestions are also taken into account.



REGIONAL INNOVATION LIVING LAB

Research projects undertaken in the Living Lab aim to solve community issues, promote balanced development, and create social values. Collaborating with local agencies and universities, these projects publish papers in domestic and international academic journals. The university research capabilities are also further enhanced by elevating the research institute's academic journal to KCI-listed journals and international academic journal standards. Domestic events for research institutes promote active community involvement.

REGIONAL UNIVERSITY SCR SHARING COMMUNITY ACTIVATION

COMMUNITY SERVICE CONTRIBUTION PROGRAM (2,334 PARTICIPANTS)

Volunteer activities support women and families, improve housing environments for low-income and elderly households, conduct environmental campaigns, and provide support for disabled families through relevant organizations.

FREE LEGAL CONSULTATION FOR LOCAL RESIDENTS (THREE SESSIONS IN 2022, 105 PARTICIPANTS)

The Law School Legal Support Office has ongoing consultations and provides free legal advice as part of its outreach program.

MUSEUM EXHIBITION AND EDUCATION-LINKED PROGRAMS

Contributes to the local community by exhibiting the university's historical archives that have grown together with the region, providing cultural enrichment opportunities for residents.

EVER+READING* PROGRAM IN COLLABORATION WITH THE LOCAL COMMUNITY (2 PROJECTS, 30 SESSIONS)

The program offers workshops and one-on-one feedback for writing workshops, supports debate-related books, and provides expert reading instructors for reading club activities.

OBSERVATORY PUBLIC OBSERVATION SESSION OPERATION (2 SESSIONS)

The observatory offers open observation sessions for local residents and public sessions for elementary, middle, and high school students.

THE CHUNGCHEONGBUK-DO HUMAN RIGHTS FORUM (1,747 YOUTUBE VIEWS, WITH OVER 500 ATTENDEES ON-SITE)

The Chungcheongbuk-do Human Rights Forum is being jointly organized and operated by the local government to promote human rights among enrolled students and local residents.

FORUMS FOR LOCAL RESIDENTS (4 SESSIONS)

Exploring various current issues and regional studies-related forums targeting local residents for simultaneous online operation.

UNIVERSITY FACILITY SHARING

- Providing university book lending and academic information resources, opening library reading rooms and shared study spaces, classrooms and meeting rooms for local residents and educational purposes, sports facilities such as the comprehensive sports field and futsal stadium, and providing venues for domestic and international conferences and academic events for education and research.
- Creating an online library service environment to maximize the utilization of library resources and foster a user-centered smart online environment, including library usage and the creation and utilization of educational content.
- Book café at Osong Station (utilized by 44,677 individuals)
- Providing free meeting and cultural spaces to Osong Station users, contributing to the local community, and enhancing the university's brand as a sharing community

PERSONALIZED HEALTHCARE SERVICES

The establishment of the Chungbuk National University Sports Center (with a total area of 12,100 square meters, spanning from the underground floor to the 4th floor) which provides recreational sports resources to the local community. It provides a forest therapy space through the creation of a "Happiness Path" at the Academic Forest (Arboretum).

SHARING UNIVERSITY EQUIPMENT (OPEN SHARING OF COLLABORATIVE RESEARCH EQUIPMENT)

Collaborative utilization of owned equipment (8,419 items) and facilities through agreements with other universities, local organizations, and support for sample analysis.

ENHANCING COLLABORATION BETWEEN LOCAL ENTITIES AND UNIVERSITIES

The university is collaborating with the local community to conduct joint research, host seminars, expand the Life Solution platform, and sign agreements with new institutions.

| Research Project Title | No. of Projects | Total Funding Amount | Humanities and Social Sciences Department | | Engineering and Science Department | |
|--|-----------------|----------------------|---|----------------|------------------------------------|----------------|
| | | | No. of Projects | Funding Amount | No. of Projects | Funding Amount |
| Chungbuk region issue resolution and regional innovation research | 27 | 246 | 12 | 96 | 15 | 150 |
| Research collaboration with other universities in the Chungcheong region | 37 | 348 | 11 | 88 | 26 | 260 |



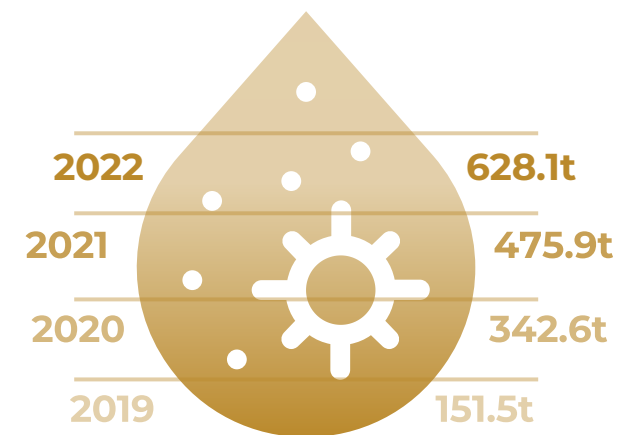
RESPONSIBLE CONSUMPTION AND PRODUCTION

Chungbuk National University strives to facilitate responsible consumption and production among all its members. Practical on-campus measures include efficient and stringent wastewater treatment and food-waste management systems. The wastewater treatment system aims to prevent environmental pollution and comply with relevant laws due to full consignment processing. The system also ensures a pleasant environment in the laboratory and preservation of water quality for the public. Regular reports on the installation of wastewater discharge facilities (local government) and consistent enrollment and renewal of environmental liability insurance every year ensure accountability. Systemic management of food waste generated in the school cafeteria includes checks on the amount of food waste generated every year and establishment of a reduction plan, cost savings through food waste management and purification of the surrounding environment with hygienic discharge. Campus food waste recycling is entrusted to a professional recycling company and provided for school research. An annual report on food waste generation suppression and disposal plan is submitted to the district office with jurisdiction. The amount of waste discharged is registered in the Allbar system on the day of discharge.



FUTURE PLANS FOR FOOD AND WASTEWATER TREATMENT ON CAMPUS

- Creating safe research activities by consigning all wastewater generated within the laboratory
- Laboratory inspection and management to reduce generation
- Compliance and implementation of relevant laws
- Campaign to reduce leftover food to reduce food waste
- Participation in low-carbon green activities and practice of virtuous cycle food culture
- Guidance on the appropriate portion size for one person and management to ensure that no additional food is left behind



Wastewater treatment volume

THE AMOUNT OF FOOD WASTE PROCESSED

FOOD WASTE GENERATED FROM TWO STUDENT RESTAURANTS

| 2020 | 2021 | 2022 |
|----------|----------|----------|
| 20,100kg | 16,026kg | 37,560kg |

FOOD WASTE GENERATED FROM FACULTY RESTAURANTS

| 2020 | 2021 | 2022 |
|----------|----------|----------|
| 14,760kg | 13,031kg | 18,200kg |

FOOD WASTE GENERATED FROM THE DORMITORY

| 2020 | 2021 | 2022 |
|----------|----------|-----------|
| 30,180kg | 80,140kg | 133,539kg |

AWARDS AND RECOGNITION

Graduate students from the Waste Resources Research Laboratory, Department of Environmental Engineering, achieved the feat of receiving multiple awards as excellent presenters at the 2022 Spring Academic Research Conference hosted by the Korea Waste and Resource Circulation Society. Their studies included ways to suppress the hydrolysis process of urea which can ultimately reduce the generation of ammonia, extraction of crude enzymes through acid fermentation of food waste and its applicability as an economical enzyme pretreatment to improve biogas production efficiency of surplus sludge and the generation of biohydrogen, which is considered a stepping stone for the policy of reducing gray hydrogen and generating green hydrogen.

The research results on the development of new Jintoul-based thermoelectric materials led by Professor Taesoo Yoo's energy conversion materials research team in the Department of Chemistry were published as the cover paper of the 2022 issue 22 of 'Chemistry of Materials', a renowned international journal published by the American Chemical Society. This research was conducted with support from the National Research Foundation of Korea's Science and Engineering Field Mid-Career Researcher Support Project and the BK21 Four Project.





CLIMATE CHANGE RESPONSE

Chungbuk University is striving to achieve its climate action goals in various ways, including an energy efficiency plan in place to reduce overall energy consumption, a process for carbon management, reducing carbon dioxide emissions, and promoting energy conservation activities in summer. The university will strengthen greenhouse gas reduction and climate crisis adaptation measures on campus to improve the quality of life for the current and future generations, protect the ecosystem and climate system, and contribute to the transition to a carbon-neutral society. It actively engages the campus community in climate action through relevant research, recognition for student efforts and consistent awareness and monitoring of energy use. The university plans to assign designated energy guards for each building to conduct daily inspections and create a checklist of measures.



Forest biomass can be one of several options to move forward on the path to carbon neutrality. For the past 22 years, we have worked hard to open the way using precious resources obtained from our forests, and we will continue to research diligently in the future



-Professor Han Gyu-seong

CURRENT MEASURES FOR ENERGY SAVING

- Creating safe research activities by consigning all wastewater generated within the laboratory
- Laboratory inspection and management to reduce generation
- Compliance and implementation of relevant laws
- Campaign to reduce leftover food to reduce food waste
- Participation in low-carbon green activities and practice of virtuous cycle food culture
- Guidance on the appropriate portion size for one person and management to ensure that no additional food is left behind
- District cooling facilities that are centrally operated are controlled based on day and time to save energy, and system air conditioners (that can be operated on a schedule) operate 24 hours a day but are controlled at regular intervals.
- Maintain records after daily inspection of electricity use, air conditioning, office/experimental equipment management status, etc. according to the 'Energy Saving Checklist'
- For weekend events, such as a conference or seminar, use of a building with a system air conditioner and consultations with the facility in advance.
- Encouraging meetings and gatherings to be held in the morning, if possible, to cooperate towards energy conservation.
- Switching off unused experimental equipment (including refrigerators and freezers).
- Promote cooling and energy saving notices by attaching them at key locations such as entrance doors.
- Regular cleaning of cooling systems.
- Promotion of energy saving measures such as closing doors, windows to conserve cooling, and switching off energy consuming electrical fittings among campus community.

AWARDS AND RECOGNITION

Professor Han Gyu-seong, Department of Wood and Paper Science, received the academic grand prize at the Korean New and Renewable Energy Society Awards ceremony held at the Korea Press Center Foreign Correspondents' Club. His awarded paper discusses strategies for promoting forest biomass usage in Korea, mid-to long-term supply and demand projections for forest biomass energy, the impact of substituting fossil fuels, and the development of technology to enhance wood pellet quality. His selection acknowledges his substantial contributions to academic progress in the new and renewable energy sector.

A graduate from the Department of Environmental Engineering received the Young Scientist Award (YBS Awards) at the Korean Society of Atmospheric Environment's regular academic conference held at Songdo Convensia. The award is granted to a young scientist who has published an outstanding paper in the Journal of the Korean Society of Atmospheric Environment (AJAE) within 7 years of completing their post-doctorate.

Architectural Engineering students received awards in the [Energy and Greenhouse Gas Reduction] category of the 2022 Green Remodeling Challenge Contest, a national competition hosted by the Ministry of Land, Infrastructure, and Transport in collaboration with organizations such as the Korea Land Safety Management Agency, the Korea Society of Facility Engineers, the Korea Green Building Council, and the Green Remodeling Regional Base Platform. The contest includes categories like drawing, poster design, and character creation to stimulate interest in green remodeling and encourage innovative ideas in energy reduction and UCC production. 94 winners were selected across five categories following professional evaluation.

GREENHOUSE GAS EMISSIONS PERFORMANCE STATUS

(unit: ton_tCO2eq)

| | Target emissions | Emissions | Goal achieved |
|------|------------------|-----------|-----------------|
| 2018 | 19,044 | 18,481 | achieved |
| 2019 | 21,621 | 18,235 | achieved |
| 2020 | 21,644 | 16,425 | achieved |
| 2021 | 19,629 | 17,841 | achieved |
| 2022 | 20,320 | 20,092 | achieved |



LIFE UNDER WATER

Chungbuk National University has actively increased its research and collaborative activities to understand, monitor, and preserve aquatic ecosystems, water, and air quality for public health and improving the health of water ecosystems. A number of award-winning research papers and collaborative agreements with other universities and industry organizations have been leading the way at Chungbuk University to tackle environmental threats caused by water-based diseases. The university seeks to participate actively with local community for the preservation, improvement, and maintenance of water and aquatic ecosystems and environments.

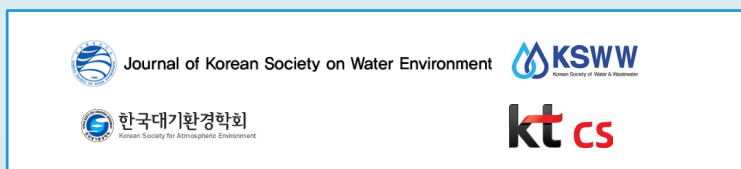
MEGA CHUNGCHEONG ONE HEALTHY CITY PLATFORM AGREEMENT

PARTICIPANTS

7 UNIVERSITIES



4 ORGANIZATIONS



EACH PARTICIPATING UNIVERSITY AND INSTITUTION WILL WORK TOWARDS

Linking the new biohealth industry with OneHealthy City Platform and medical policy

Standardizing medical data certification

Establishing a smart healing center with companion animals

Building a city safe from infectious diseases through infectious disease toxicity testing and vaccine development

In particular, **Chungbuk University** seeks to lead the creation of high added value through association with the new biohealth industry, One Health platform, and medical policy.

COLLABORATIVE EFFORTS

- The Chungbuk National University Industry-Academic Cooperation Group recognized the need for cooperation with the Korea Water Resources Corporation (K-water) Environment Headquarters in relation to the 'prediction of intelligent turbid water in response to abnormal rainfall and development of aquatic ecosystem management technology'. Through this agreement, both organizations will contribute to improving the health of the aquatic ecosystem by establishing a foundation
- A graduate student from the Department of Life Systems gave an excellent presentation at the 'Korea Ecological and Environmental Science Association Academic Presentation Contest' held at Konkuk University and received the award for her presentation on "Herbivore-induced species coexistence in aquatic plant community." The Korea Ecological and Environmental Science Association is an academic conference held every year by a joint collaboration of domestic academic organizations related to ecology and environmental science, and the 2022 academic conference was held jointly by the Korean Society of Ecology and the Korea Rivers and Lakes Society.
- The university signed a business agreement on the 'Mega Chungcheong OneHealthy City Platform for building an infectious disease-free city' with seven universities in the Chungcheong area and four professional organizations, related to water quality, air quality, and information technology. Participating organizations agreed to cooperate and create high added value through a prevention and sharing collaboration ecosystem for management of environmental diseases, metaverse-based health monitoring, and development of non-face-to-face treatment infrastructure.



We are improving the health of the water ecosystem and promoting ecosystem services through K-series technology, including the Integrated Hydrological Water Quality Prediction System (SURIAN), a technology specialized in the smart city water field of Korea Water Resources Corporation, and the research capabilities of Chungbuk National University's excellent personnel. It is expected that we will be able to contribute to the R&D of the Chungcheong region by promoting mutual academic and research exchanges



-Lee Young-seong

Head of Chungbuk National University's Industry-Academic Cooperation Center



LIFE ON LAND

Chungbuk National University aims to discover shared programs between universities to enhance sustainable development in the local community. The university strives to build an innovative educational model which fosters cooperation between universities and the regional community. Through the various outreach programs, the university seeks to build an enhanced awareness of forest ecosystems, the power of nature, sustainable life choices, and the seriousness of the climate crisis among students and local community. It seeks to encourage students to take the lead in improving local social problems and bring about positive changes.



Chungbuk National University's College of Agriculture, Life and Environment operated the second semester CBNU-RC Forest Healing Program for students participating in RC at the Wolak Mountain Academic Forest in Jecheon-si, Chungcheongbuk-do under the theme of 'Forest Water Dream'. This program aims to relieve physical and emotional tension in the healing environment of the forest, strengthen self-direction by increasing positive self-concept and efficacy, and form positive relationships and improve intimacy through group activities. This program was led by Forest Healing instructors from the Forest Healing Studies Collaborative Course at Chungbuk National University, and included programs such as, The Nulim - walking the forest path, experiencing forest dyeing using natural dyeing materials, and more. The Ullim-Dream Sports Day, The Yeollim-Sharing Hearts in the Forest, The Dream-Mansu Valley Ecological Exploration Trail and Starry Night Viewing Programs in the Forest were also held.

“

By preparing and participating in this campaign, I have become more aware of the need to protect the environment, and if my small actions become ours, it will be a big deal. I will not forget that I can create a difference.

”

- Min Chi-oon

(3rd year of Consumer Studies), student council president of the 29th Lilac Student Council of the College of Human Ecology and a booth host for this campaign.

HEALING WITH NATURE: BODY CARE, MINDFULNESS WORKSHOP



45

Participants From each university

CBNU-RC FOREST HEALING PROGRAM

20

Students



COMMUNITY OUTREACH

Chungbuk National University held the 'Healing with Nature: Body Care, Mindfulness Workshop' at the Ewha Womans University Fern Training Center located in Goesan-gun. This workshop in which students from Chungbuk National University, Ewha Womans University, and Chungbuk Provincial University participated, was designed to provide an opportunity to communicate with nature and achieve internal growth through forest experience. The workshop included programs on 'Surviving in Nature: Safety Education in Nature', 'Nature Now: Sound Journey to Nature', and 'More Growth: Forest Healing'. The 'More Forest, More Growth: Forest Healing' program conducted by Chungbuk National University is supported and operated by graduate students majoring in Forest and consists of activities like singing bowl meditation and forest interviews along with the forest. This workshop follows the business agreement signed at Ewha Womans University in Seoul, which seeks to contribute to regional development by promoting various cooperative projects between the university and the region using the Fern Training Center.

Chungbuk National University's College of Human Ecology held a 'Good Day Challenge' campaign to respond to the climate crisis for school members and Cheongju citizens at Chungbuk National University's Gaesin Culture Plaza. This campaign, in collaboration with the Cheongju City Volunteer Center, was conducted to inform the local community of the seriousness of the climate crisis and promote lifestyle rules to reduce carbon emissions, thereby conveying the message to join for '2050 carbon neutrality'. As part of the national university development project, this campaign operated a booth with the theme of action/practice/promise for the environment. To encourage participants to 'take action' for resource circulation, '20 per person' plastic bottle caps were collected, and participants who were already 'practicing' using tumblers, shopping carts, and receiving electronic receipts joined the campaign by authenticating on social media. They also operated a booth where they could experience making fabric fans, promising to save energy in the summer.



AWARDS AND RECOGNITION

Students from the Department of Agricultural Chemistry and the Department of Agronomy were awarded at the '2022 Korean Society of Soil Fertilizers 54th General Assembly and Regular Academic Conference'. The awards were for the best paper presentation on "Evaluation of the effects of wood vinegar on nitrogen leaching and soil microbial activity in urea-treated soil" and best poster presentation on "The impact of supplying organic waste resources and introducing cropping systems to rice cultivation areas on rice growth characteristics and nitrogen use efficiency."



PEACE, JUSTICE, AND STRONG INSTITUTIONS

Chungbuk National University aims to implement strong measures and institutions to ensure a peaceful, safe learning and working environment for its campus community, as well as build resilience and economic wellbeing in the local region and community.

For students, the university runs an autonomous student council where student satisfaction is improved by collecting and reflecting on students' opinions and suggestions. The university also promotes cooperation and support for events held by the student council. For faculty and staff, the public interest reporting center prevents and protects against discrimination. For the community, the local innovation living lab enables research on community problems that can facilitate problem solving and solutions to long-term issues

CAMPUS MEASURES

The student council support system that deliberates and advises on important matters related to university development and education seeks to create a democratic university culture by actively protecting students' rights and interests. It guarantees student autonomy and enables communication and support from the Student Council, which is a student autonomous body.

Public interest reporting system operation protects those reporting discrimination from educational or employment disadvantage. The public interest reporting system can be used to report discrimination and can also protect reporters. The purpose is to contribute to the prevention of public interest violations and revitalization of the public interest reporter protection system by establishing work procedures for the reception and processing of public interest reports reported to Chungbuk National University and the protection and support of public interest reporters.

The university also acts as an expert to provide policy and advice to local or national governments.

In celebration of the university's 70th anniversary, an External Cooperation Committee for communication and cooperation for the development of the local community was established. The External Cooperation Committee appointed elected public officials among alumni as external cooperation committee members directly under the president for the mutual development of the university and the region, such as nurturing local talent and innovating local industries, along with alumni who are playing a pivotal role in society. The External Cooperation Committee takes the lead in advising and cooperating on external cooperation projects for university development, cooperation with local communities and other organizations, and external exchange programs.

MEETINGS HELD WITH THE STUDENT COUNCIL (collecting opinions, etc.)



LOCAL INNOVATION LIVING LAB

To Support community problem-solving research for local development, balanced growth, and social value creation.

To cultivate a future-ready research center for 4th Industrial Revolution-era community contributions.

To contribute to the local community through events like domestic academic gatherings.

To carry out regional innovative research with local organizations or other universities, publishing in domestic and international professional academic journals.

To elevate research quality by aligning university institute journals with KCI and international standards.



We present desirable policy directions that can promote consumer rights and interests in an increasingly sophisticated and complex consumer society, and further help academia, government, and other organizations recognize the responsibilities consumers have in the ESG era and help them play the role of sound consumer citizens. We will cooperate with local governments and consumer groups



- Professor Yoo Hyeon-jeong

ACTIVE PROJECTS FOR MEDIA AND JOURNALISM

| Project Name | Number of Operations | | |
|------------------|----------------------|------|------|
| | 2020 | 2021 | 2022 |
| Gapjil education | 0 | 1 | 2 |
| Open Newspaper | 54 | 77 | 62 |

ACTIVE PROJECTS FOR MEDIA AND JOURNALISM

| Research project name | No. of assignments | Total amount of support | Humanities and Social Sciences | | Science and engineering | |
|--|--------------------|-------------------------|--------------------------------|----------------|-------------------------|----------------|
| | | | No. of assignments | Support amount | No. of assignments | Support amount |
| Research on problem solving and regional innovation in the Chungbuk region | 27 | 246 | 12 | 96 | 15 | 150 |
| Collaborative research with other universities in Chungcheong region | 37 | 348 | 11 | 88 | 26 | 260 |

APPOINTMENTS AND RECOGNITION

- Professor Yoo Hyeon-Jeong of Consumer Studies was selected as the 17th president of the Korea Consumer Policy Education Association. The Korean Society of Consumer Policy Education was established in 2005 to promote consumer welfare through exchanges with consumer-related organizations such as consumer academia, the government, companies, and consumer groups. It publishes the National Research Foundation of Korea-registered journal 'Consumer Policy Education Research' four times a year. It publishes and holds regular general meetings and academic conferences twice a year. Professor Hyeon-Jeong Yoo was also appointed as the Director of the Consumer Harm Prevention Bureau of the Ministry of Food and Drug Safety.
- Professor Song Yang-Hoon of the Department of Agricultural Economics was appointed as a non-executive director of the Korea International Cooperation Agency. During his two-year term, Professor Song Yang-Hoon will participate in KOICA's top management decision-making, monitor and check management activities, and provide management advice.
- Professor Manhyeong Lee of the Department of Urban Engineering was appointed as a member of the Special Committee on Local University Revitalization of the National Balanced Development Committee.
- Professor Park Woo-yoon of the College of Medicine was elected as the third president of the Korean Medical Physics Certification Board (KMPCB).

PARTNERSHIPS FOR THE GOALS

Chungbuk National University hopes for a society where discrimination is eliminated, and peaceful coexistence becomes possible. To fulfil this dream and to actively work towards its goals, the university strives to build partnerships to offer its students opportunities to volunteer and improve community standards, instill an understanding of the importance and values of human rights, and build collaborations with local human rights organizations.

The robust university collaboration network activated by Chungbuk National University has also contributed to significant knowledge and resource sharing among institutions.



CHEONGJU-SI UNIVERSITY STUDENT VOLUNTEER CORPS

As part of the National University Promotion Program, the university student volunteer corps, facilitated by the College of Human Ecology in collaboration with the Cheongju Volunteer Center, engaged in activities for one year, including local environmental improvement service, resident-targeted educational service, living environment improvement campaign, and a talent donation service.

CHUNGCHEONGBUK-DO HUMAN RIGHTS FORUM

This year's human rights forum, themed 'Discussing Human Rights in Daily Life,' aimed to promote human rights enhancement for Chungbuk National University students and residents by fostering an understanding of human rights' importance and values. Approximately 500 people gathered to share their aspirations, with an additional thousand participants joining online via YouTube. The forum served as a platform for understanding and sharing the significance of human rights, with the goal of creating and expanding co-created participatory human rights programs by students and residents.

Future plans for the forum include incorporating the results of human rights program needs assessments, expanding participatory human rights programs based on preference surveys, increasing collaboration with local human rights organizations, and strengthening the local human rights network through partnerships with other university human rights centers and organizations in the Chungbuk region.

ACTIVATION OF UNIVERSITY COLLABORATION NETWORK

- Utilizing the remote learning credit exchange system (knu-9) among national Universities as a hub to conduct courses for the 2022 academic year, both in the first and second semesters
- Promotion of research on enhancing academic exchange policies and provision of scholarships to support the living expenses of students participating in academic exchange at hub national Universities
- Operation of specialized programs utilizing advanced analytical instruments, which are high-cost equipment owned by Chungbuk National University
- Joint participation in collaboration with Universities in the Chungbuk region through a consortium
- Carrying out internship-focused educational practical activities after matching with museums in other Universities
- Teacher training institutions in the Chungcheong region jointly collaborate to develop online content for pre-service teacher adult education. The content developed and produced is utilized by each university separately.
- Support for overseas exchange students by providing scholarships



KEY PARTNERSHIP ACTIVITIES

OPERATION OF KOREAN UNIVERSITY RESOURCE UNITED SYSTEM (KORUS)

Enhancing functionality, strengthening communication, collaboration, and promotion, and providing a stable infrastructure to expand the use of the KORUS system among 38 national universities, thereby promoting university integration

Strengthening the operation of task forces for enhancing user support, providing education at different user levels, and operating a collaborative online community for national universities to support user systems

Opportunities and events to engage the local community to cultivate culture and get in touch with the humanities.

JOINT ADMISSIONS BRIEFING FOR HUB NATIONAL UNIVERSITIES

Attracting new students through the provision of entrance information and personalized career counseling at exhibitions sponsored by regional education offices

CHUNGCHEONG REGION UNIVERSITY CONSORTIUM CONTEST CAMP (2 SESSIONS IN 2022, 52 PARTICIPANTS)

Conducting competition camps to secure employment competitiveness

Developing basic courses on job skills commonly required by companies, such as big data and ESG, as online content and sharing them among universities in the Chungbuk region

PUBLICATION OF KNU10 MAGAZINE

The magazine is published in English and distributed to relevant government agencies and university evaluation organizations to share and promote the role of the National Flagship Universities.

NATIONAL UNIVERSITIES DEVELOPMENT PROJECT ADVANCEMENT COMMITTEE OPERATION

Organizing a forum to share exemplary development projects at each university and to activate networks between national universities in different functional areas

ESTABLISHMENT AND OPERATION OF THE CHUNCHEONG HIGHER EDUCATION COMPACT (CHEC)

In 2019, the "National Universities Collaborative Education Innovation Center (CHEC)" was launched to establish a collaborative system for mutual cooperation among eight national Universities in the Chungcheong region, aiming to promote regional development.





SUSTAINABLE
DEVELOPMENT
GOALS

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