



Mahidol University
sustainability



SUSTAINABILITY REPORT 2025



5Ps

of Sustainable Development



PEOPLE

The SDGs declare the world's determination "to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment." Despite some signs of hope, it's clear we need to do better – especially as we face complex challenges like conflict and climate change that directly impact the dignity and well-being of humankind.



PROSPERITY

The SDGs aim to "ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social, and technological progress occurs in harmony with nature." Inequality is one of the defining issues of this generation and requires a commensurate focus that, to date, has been lacking.



PLANET

The SDGs set a goal to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, "so it can support the needs of the present and future generations." Nearly every day we are seeing just how connected – and fundamental – climate change is to global development.



PEACE

The SDGs rightly note that "There can be no sustainable development without peace and no peace without sustainable development." Therefore, they set out goals to foster peaceful, just, and inclusive societies which are free from fear and violence.



PARTNERSHIP

The SDGs call for "a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people." Problems that cross geographies and sectors require collaboration that does as well.

TABLE OF CONTENTS

Highlights	2
Introduction	3

1 : No Poverty	4
2 : Zero Hunger	7
3 : Good Health and Well-Being	9
4 : Quality Education	12
5 : Gender Equality	15
6 : Clean Water and Sanitation	18
7 : Affordable and Clean Energy	20
8 : Decent Work and Economic Growth	22
9 : Industry, Innovation and Infrastructure	24
10 : Reduced Inequalities	27
11 : Sustainable Cities and Communities	30
12 : Responsible Consumption and Production	32
13 : Climate Action	34
14 : Life Below Water	36
15 : Life On Land	38
16 : Peace, Justice and Strong Institution	40
17 : Partnership for the Goals	42

HIGHLIGHTS

 <p>Scholarship</p>	9,898 students are supported more than 132 million baht
 <p>Health Service</p>	Total 8.8 million all patient services
 <p>Education & Research</p>	2,751 research publications related to SDGs 4,659 research projects 2,437 million baht of research fund
 <p>Environment</p>	5.82 million m ³ water consumption 100% recyclable treated wastewater (in Salaya campus) 389,671 MWh total electricity consumption 14,812 MWh solar energy consumption 8.01% recyclable waste Reduce GHGs emission 100% by 2030
 <p>Population</p>	39,242 staff 29,721 students 1,671 international students 82 disability students and staff
 <p>Governance</p>	90.21 score of Thailand's Integrity and Transparency Assessment
 <p>Collaboration</p>	498 MoU/MoA collaboration

INTRODUCTION

Approach to sustainability

Mahidol University strives to be “a leader on sustainability” in responding to the United Nations 2030 Agenda for Sustainable Development. We have been developing our academic activities, research, and people for sustainable community through our passion of “Mahidol for Sustainable Future”. Beyond creating knowledgeable society, Mahidol University further concerns for sustainable development by contributing economic, social and environmental dimensions leading to efficient use of resources, social equity and improved quality of life of faculty, staff, students and the surrounding communities. Therefore, Mahidol University Sustainability Strategy which consists of 4 key areas as the framework was established.

- 1) Research and Innovation for sustainability
- 2) Education for sustainability
- 3) Community and Social engagement for sustainability
- 4) Operations for sustainability

In this report, our active sustainability performance was demonstrated against a broad spectrum of aspects, according to the Mahidol University Sustainability Strategy.

Mahidol University Sustainability strategy

Mahidol University as a leading institution of higher education in Thailand that produces quality graduates in various of fields for society in order to create and develop Thailand to progress on par with those of other countries with the key aspiration of being “Wisdom of the Land”. Therefore, Mahidol University Sustainability Strategy was created under the concept of Sufficiency Economy Philosophy according to the 17 Sustainable Development Goals (17 SDGs) by the United Nations, with 4 objectives;

1. MU will educate and shape our staff and students with sustainability mindsets to transform into change agents for sustainable society.
2. MU will address local and global challenges, tackle complex sustainability issues and promote sustainability actions in all research activities.
3. MU will embed continuous improvement of a sustainability operations.
4. MU will embrace a culture of well-being and sustainability throughout the campuses and promote inclusive society.

By building a strong, stable and sustainable foundation through the Mahidol University Sustainability Strategy, the University is ready to drive change in all sectors of the University through 4 key areas as described in the figure.



1 NO POVERTY



165 Researchers



212 Research output



52 Research units

SDG 1 : NO POVERTY

Financial Support

The University is committed to supporting students at all levels, including those facing financial difficulties, by providing scholarships and financial assistance to ensure they can depend on financial aid and have equal access to quality educational resources through graduation. The University also offers opportunities for students to earn extra income through part-time university employment. Compensation from these positions helps to fund their education and ease their families' financial burden. In the 2023 academic year, Mahidol University awarded scholarships and financial aid more than 132 million baht to 9,898 students, reinforcing its commitment to an inclusive education system accessible throughout the course of study. This effort ensures equal access to educational resources and aligns with Sustainable Development Goals, SDG1: No Poverty and SDG 4: Quality Education.

Scholarships	Number of Student	Scholarship Fund (Baht)
Scholarships Supporting Student's Education*	7,471	45,602,946
Faculty Scholarships*	2,182	86,633,039
Support Grants	41	303,800
Welfare Grants	204	459,420
Total	9,898	132,999,205

Note: * The Mahidol Medical Scholars Program and the King's Scholarships are categorized as Scholarships Supporting Student's Education, and the honorary award for outstanding graduates is categorized as Faculty Scholarships, there are cannot specify the scholarship fund amount (Baht).

Furthermore, to expand educational opportunities for students with financial challenges, the University facilitates applications for the Student Loan Fund (SLF). In the 2023 academic year, 3,412 students received loans worth over 262 million baht. This provides another pathway for capable students to access essential educational resources. Collectively, these efforts represent an investment in human capital and lay the foundation for a sustainable future for Thai youth.

Supporting Students with Opportunities to Earn Extra Income

Mahidol University is committed to providing students with support and develop students to enhance their quality of life. To this end, the University has allocated a portion of its revenue budget to an initiative that enables students to earn extra income during school breaks or after class hours. This initiative is designed primarily to help students take full advantage of their free time by gaining firsthand experience that strengthens their skills and prepares them for their future careers after graduation.

In addition, these part-time jobs serve as an extra source of income that helps ease the cost of education for both students and their parents. Recognizing the importance of building a solid foundation for entering the workforce, Mahidol University places a strong emphasis on this initiative as a means of support. In the fiscal year 2024, a budget of 600,000 baht was allocated to create extra income opportunities for students. The disbursement of this fund is detailed as follows.

Item	Amount Disbursed (Baht)	Number of Students in Part-Time University Employment (Persons)
Quarter 1	39,900	43
Quarter 2	71,850	37
Quarter 3	115,080	53
Quarter 4	212,590	70
Total	439,420	203

Promoting Careers in Textile Weaving and Processing for Underprivileged Individuals

Mahidol University applies academic knowledge in practical ways to create career opportunities for communities within its network. For this initiative, a specific location was chosen as a development model: Non Nam Thaeng Sub-district, where a Mahidol University campus is situated. The Amnat Charoen Campus—located in Non Nam Thaeng Sub-district, Mueang Amnat Charoen District, Amnat Charoen Province—is a semi-rural community consisting of 14 villages, 2,471 households, and a total population of 11,620. The majority of residents face poverty and work primarily as laborers, merchants, or farmers. Most have completed less than a secondary school education, lack knowledge and skills needed for career development, and shoulder the responsibility of caring for sick or disadvantaged family members.

This initiative draws upon the unique cultural capital of Amnat Charoen Province: Khit Fabric in the Thakho Salab Eua pattern, a design that symbolizes generosity and sharing. This pattern is considered an identity of Amnat Charoen Province and won first prize in a fabric contest organized by the Bangsai Arts and Crafts Center 30 years ago. Today, it is recognized as the official provincial fabric, with local policy encouraging government agencies to wear it. Currently, however, the production capacity of Khit fabric in the Thakho Salab Eua pattern is insufficient to meet market demand, as it is an intricate craft requiring both time and skill. To address this, Mahidol University has joined forces with network partners in Amnat Charoen Province, aiming to develop knowledge and skills in weaving, textile processing, enhancing packaging, online marketing, and income management for underprivileged individuals. Beyond this, the initiative also functions as a learning center for career development, accessible to the wider public. The implementation of this initiative is aligned with the mission of Mahidol University's Amnat Charoen Campus in promoting integrated rural development across the lower Mekong Basin. A highly significant research mission is to advance Area-Based and Community Development, focusing on sustainable development through poverty eradication, enhancing wellbeing for people of all ages, promoting lifelong learning, and fostering strong collaboration among government agencies, educational institutions, and local communities.



Strategic Policy Plan for Sustainable Agriculture and Environmental Management through Community-based Agroforestry

The agricultural sector plays a vital role in Thailand's economic and social development. Nonetheless, farming remains an occupation with lower average incomes compared to other professions. Certain contributing factors include limited cultivation areas that restrict productivity, high labor costs that drive up production expenses, and a lack of proper planning and management, which leads to inefficient resource utilization.

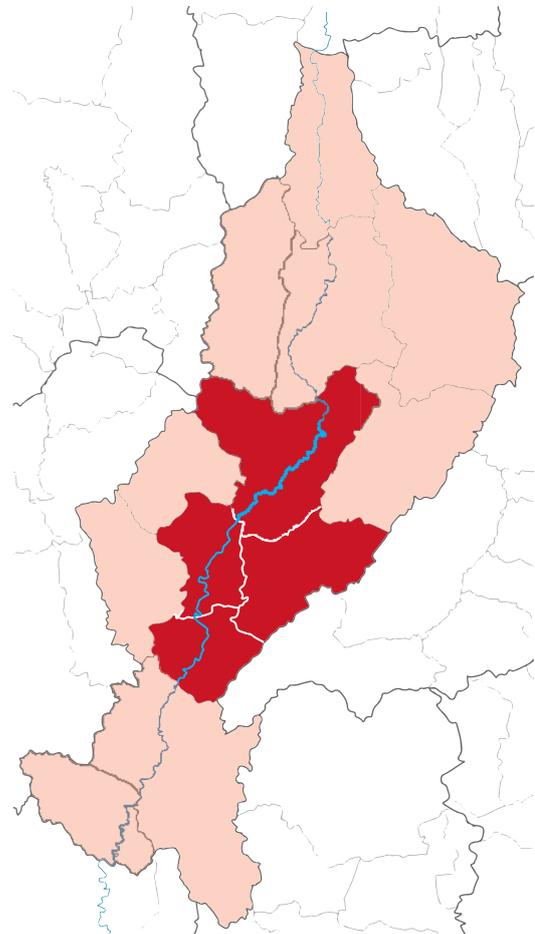
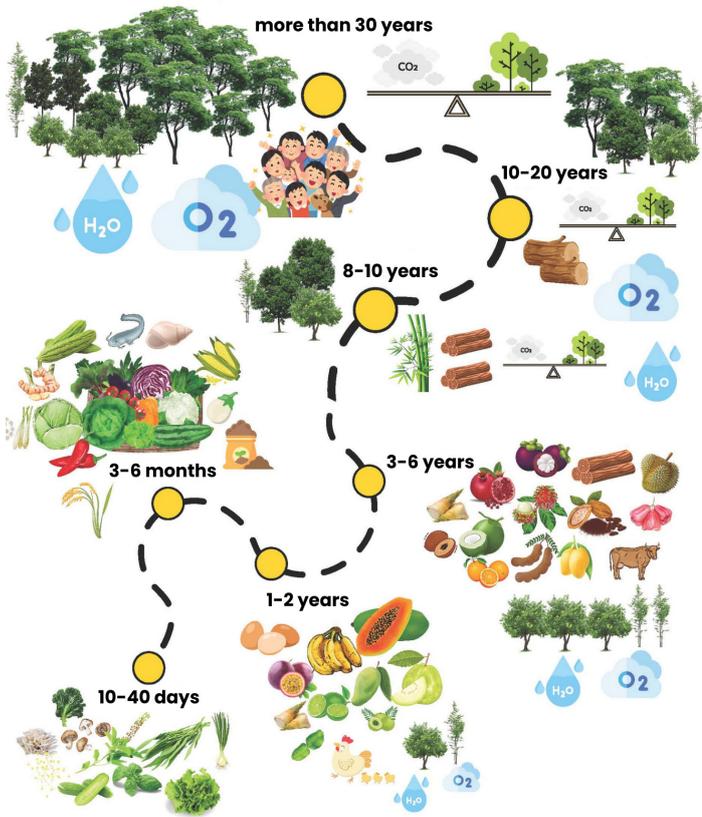
Lampang Province, where the Faculty of Environmental and Resource Studies of Mahidol University is located, is one of the locations where farmers struggle with recurring droughts, infertile soils, reliance on monoculture systems lacking diversity, and limited product development or processing to add value. These constraints, coupled with insufficient income, often result in indebtedness and reliance on bank loans. At the same time, Lampang possesses abundant watershed forests which, if managed effectively, could mitigate natural disaster risks and ease drought-related problems in the area.

In response, the Mahidol University Environmental and Resource Research and Academic Service Center in Lampang Province has partnered with government agencies, the private sector, and local communities across 4 pilot districts—Muang Lampang, Ko Kha, Mae Tha, and Sop Prap—to develop a strategic policy plan for sustainable agriculture and environmental management through community-based agroforestry. This initiative explored the environment and community potential in the pilot areas,

organized knowledge exchanges and workshops with farmers, developed a strategic policy plan to address local agricultural and economic issues, built a community participation network involving local communities for area development and agricultural product expansion, and delivered a strategic policy plan for sustainable agriculture and environmental management through community-based agroforestry to 33 agencies in the pilot districts.

Following the implementation of the plan, water storage reservoirs have been constructed for community use, watershed forests have been reinforced in upstream areas through tree planting, and local farmers have adopted complex cropping systems, low-water-use cultivation, and cash crops such as fruits and vegetables. These actions have diversified agroforestry outputs, strengthened food security, expanded green spaces, and fostered a circular economy. In addition, local wisdom-based products have been further processed, generating income at household and community levels while improving the local environment.

- Strategy 1**
 Participatory conservation and restoration management of watershed forest resources to ensure natural resource security and quality of life.
- Strategy 2**
 Promotion and development of agriculture through agroforestry/integrated farming systems to achieve sustainable agricultural and environmental management.
- Strategy 3**
 Building local farmer cooperation networks to strengthen collaboration and ensure food security, market access, and livelihood stability.





<p>422 Researchers</p>	<p>618 Research output</p>	<p>96 Research units</p>
-----------------------------------	---------------------------------------	-------------------------------------

SDG 2 : ZERO HUNGER

Food-Related Academic Programs

Mahidol University offers food-related academic programs designed to produce graduates with knowledge, expertise, and practical skills in the food and nutrition industries. These programs also aim to meet the demands of today’s market, where there is a growing emphasis on health, food, and nutrition. Programs are offered by various faculties as follows:

Faculty	Degree Level	Field of Study
Faculty of Medicine Ramathibodi Hospital	Master’s Degree	Nutrition (Regular and Special Programs)
	Doctoral Degree	Nutrition
Faculty of Public Health	Bachelor’s Degree	Nutrition and Dietetics
		Food Science for Health
	Master’s Degree	Nutrition
	Doctoral Degree	Public Health Nutrition
Institute of Nutrition	Master’s Degree	Food Science for Nutrition (International, Regular, and Special Programs)
		Toxicology and Nutrition for Food Safety (Regular and Special Programs)
		Nutrition and Dietetics (International, Regular, and Special Programs)
	Doctoral Degree	Food and Nutrition for Health and Wellness (International, Regular, and Special Programs)
Mahidol University, Kanchanaburi Campus	Bachelor’s Degree	Food Technology
		Agricultural Science
	Master’s Degree	Food Resource and Ecosystem Sustainability (Regular and Special Programs)

In addition, Mahidol University, Kanchanaburi Campus, has revamped its Bachelor of Science in Food Technology program with a focus on cultivating innovators and entrepreneurs. The curriculum integrates courses in Entrepreneurship, Product Development, and Logistics, emphasizing the efficient use of resources. Food production experiments are conducted using local ingredients, while waste management and utilization are also included to maximize benefits without causing environmental harm. Newly introduced elective courses include Future Food, Bakery Technology, Beverage Technology, and Food Toxicology.

Food Sanitation Training

Food Sanitation Training for Food and Beverage Vendors at Mahidol University, Salaya Campus

Consuming safe food is essential to daily life, particularly in an era when people increasingly rely on street food or ready-to-eat meals. Consequently, food preparers and handlers play a critical role in ensuring that food is prepared hygienically, free from contamination, and safe for consumers’ health. Mahidol University, Salaya Campus, operates a central food court and multiple vendor outlets across its buildings, serving food and beverages to students, staff, and visitors. Recognizing the importance of food safety, a 2024 food sanitation training session was conducted by the Phutthamonthon District Public Health Office.

The training aimed at equipping vendors, food preparers, and handlers with the knowledge and skills necessary to comply with the food sanitation standards set by the Ministry of Public Health. This training also included conducting basic bacterial tests on food, containers, equipment, and hands of food handlers to ensure that consumers receive safe, high-quality, and hygienic food, while simultaneously enhancing the overall quality of food vendors at Mahidol University, Salaya Campus.

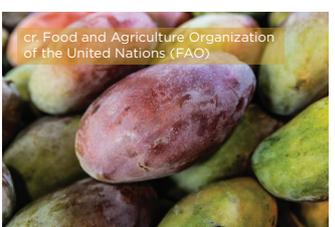
Breed Development for Enhanced Yield Production

Sex-reversed Giant Freshwater Prawn MU1

Following the successful development of the prototype sex-manipulated giant freshwater prawn MU1 by the Institute of Molecular Biosciences, which enables an increased population of larger male prawns with improved growth rates and higher market value, the University has continued its efforts in breed development to enhance prawn quality. Monosex generation techniques have been developed to optimize prawn farming and shorten cycles, thereby reducing production costs for feed, electricity, and labor. This advancement has also increased farming cycles to 3–4 cycles per year (compared to the previous 2 cycles). The initiative has been scaled up to ensure that farmers across the country can access female broodstock of MU1 prawns. From the start of the initiative in 2020 through 2024, a total of 10,270 female broodstock were deployed. There is a projected annual increase in male giant freshwater prawn production, which enables pond-raised prawn farmers to earn at least 1.3 times more income compared to conventional prawn farming. Ultimately, the initiative enables prawn farmers to produce high-quality, value-added prawns and secure stable incomes, while promoting sustainable agricultural practices and expanding export opportunities for Thailand’s giant freshwater prawns in global food markets.

OCOP-One Country One Priority Product

The Institute of Nutrition, Mahidol University, is playing an active role in the international One Country One Priority Product (OCOP) initiative led by the Food and Agriculture Organization of the United Nations (FAO). Inspired by Thailand’s successful One Tambon One Product (OTOP) model, this approach has been applied to support the OCOP initiative in different countries. Researchers from the Institute were dispatched to 4 Asia-Pacific countries—the Kingdom of Bhutan, the Independent State of Papua New Guinea, the Kingdom of Cambodia, and the Federal Democratic Republic of Nepal—to share knowledge, transfer technology, and jointly develop safe, nutritious, and environmentally friendly food products using the key agricultural raw materials of each country. This initiative also emphasizes exchanging expertise in food management systems to support income generation for smallholder farmers in each country.

 <p>cr. FREEPIK: KamranAydinov</p>	 <p>cr. Food and Agriculture Organization of the United Nations (FAO)</p>	 <p>cr. Food and Agriculture Organization of the United Nations (FAO)</p>	 <p>cr. Food and Agriculture Organization of the United Nations (FAO)</p>
<p>The Kingdom of Bhutan Development of quinoa-based foods and products</p>	<p>The Independent State of Papua New Guinea Development of vanilla-based foods and products</p>	<p>The Kingdom of Cambodia Development of mango-based foods and products</p>	<p>The Federal Democratic Republic of Nepal Development of cardamom-based foods and products</p>

The Use of AI for Seed Germination and Fruit Sweetness Detection

The Faculty of Information and Communication Technology has transferred innovative agricultural technology to Thai farmers by applying Artificial Intelligence (AI) and image processing techniques in 2 main systems:

1. **Seed Germination Detection System for 3 economic crops: rice, chili, and papaya.** This system analyzes 3 image characteristics: color, texture, and shape, to predict the seeds’ germination and growth potential. The system utilizes a germination database, photographic records from planting to sprouting, and image processing of seed traits, the system achieves over 90% accuracy. This helps farmers select seeds that produce high-quality yield and secure stable income. Further development is underway to extend detection capabilities to much smaller seeds, such as those of holy basil.

2. **Fruit Sweetness Detection System for economic fruits, such as durian, apple, banana, and pineapple.** This system uses a database of fruit images and their sweetness levels, measured with a refractometer, to estimate sweetness without cutting open the fruit. This innovation enables farmers and buyers to agree on trade prices and reduces fruit losses caused by traditional tasting methods.

3 GOOD HEALTH AND WELL-BEING



2,743
Researchers



18,145
Research
output



212
Research
units

SDG 3 : GOOD HEALTH AND WELL-BEING

Low Sodium Policy

Following its 2023 commitment to position Mahidol University as a model university for reducing sodium consumption, the University has continued efforts to become a national and international leader in health by supporting the implementation of the Low Sodium Campaign Funding policy for internal faculties. In 2024, the following projects were implemented:

Initiative	Faculty
Low-Sodium Tips for a Heart-Friendly Lifestyle	Institute of Molecular Biosciences
Consume Moderately — Less Salt, Less Disease	National Laboratory Animal Center
Regular Salt Reduction Keeps Chronic Diseases Away	Faculty of Social Sciences and Humanities
Model Community Development for Reduced Sodium Consumption and Non-Communicable Disease Risk Minimizing	Amnat Charoen Campus
Salt Less for Better Life & Healthy	Mahidol University Library and Knowledge Center
Lower Sodium for Better Health	Faculty of Physical Therapy
Campaign to Reduce Sodium Consumption in the Ratchawithi Campus Area	Faculty of Tropical Medicine, Faculty of Public Health, and Faculty of Dentistry

All these projects primarily focus on influencing the consumption behaviors of students and staff—who are key drivers of the organization—as well as university vendors, ensuring access to high-quality food and improved wellness for everyone. Knowledge on the subject has been shared with communities and youth in the nearby areas, fostering a society with lower sodium consumption and reduced risk of non-communicable diseases (NCDs).

Health Service

Mahidol University operates 9 accredited affiliated hospitals, equipped with technologies and expertise to serve patients at both national and regional levels. These hospitals not only provide healthcare and treatment but also organize public health promotion activities and advance research and innovation in healthcare.

The University also prioritizes underprivileged populations who face barriers to accessing healthcare, offering free proactive health services for both physical and mental health. These include community health promotion, elderly care, non-communicable disease prevention, and dental services. In the 2024 fiscal year, a total of 8,774,407 cases received health services.

Regular Service	Number of services
Physical Healthcare Service	7,916,557
Dental Service	824,689
Free Dental Service	9,187
Total	8,750,433

Student Service	Number of services
Physical Healthcare Service	22,714
Mental Health Service	1,260
Total	23,974

Mental Health Promotion

MU Friends

The Student Affairs Division of Mahidol University has organized the "MU Friends for Staff" training, featuring guest speakers from the Faculty of Medicine, Siriraj Hospital, to provide knowledge and foster understanding among staff who support and counsel students at risk of self-harm. The training also focuses on developing staff competencies in observing, assessing, and referring students seeking mental health assistance, while fostering a collaborative network among staff in addressing students' mental health needs. Role-playing exercises are included to ensure staff can provide timely and effective intervention when situations arise. This training prepares staff to manage critical mental health issues, particularly sensitive ones such as self-harm, in line with the University's commitment to student well-being.



Geriatric Clinics

Thailand is becoming a full-fledged aging society, with a rapidly increasing elderly population, presenting increasingly complex health challenges. Mahidol University, a leading medical education and research institution in the country, is addressing these challenges by establishing specialized centers for elderly care. This initiative lays a solid foundation for the sustainable development of Thailand's elderly healthcare system, encompassing service provision, research, personnel development, and collaborative networks to promote health and well-being across all age groups.

Entity	Responsible Department	Service	Operating Hours
Siriraj Geriatric Medicine Center - Samut Sakhon Province	Faculty of Medicine Siriraj Hospital	Available for patients aged 60 and above only - Comprehensive Geriatric Health Check-up Clinic - Geriatric Clinic - Geriatric Rehabilitation Clinic	07:00 AM – 12:00 PM Liab Khlong Si Wa Phasawat Road, Moo 1, Na Di Sub-district, Mueang District, Samut Sakhon
Geriatric Clinic	Physical Therapy Center, Faculty of Physical Therapy	- Holistic elderly health care - Analysis of disease risk factors and physical therapy care in the elderly - Balance and mobility rehabilitation for dependent elderly - Physical therapy for elderly with complex conditions - Therapy for elderly with dementia and cognitive decline	Salaya Monday: 01:00 PM – 04:00 PM Tel. 0-2441-5450 ext. 11 Pinklao Tuesday: 01:00PM – 04:00 PM Tel. 0-2433-7098
Geriatric Clinic	Golden Jubilee Medical Center	Available for patients aged 60 and above only - Comprehensive health assessment for elderly - Geriatric conditions: dementia, depression/confusion, insomnia, communication/behavioral changes, balance/fall issues, nutrition deficiencies, frailty/low muscle mass - Disease prevention for healthy elderly and vaccination	Monday: 09:00 AM – 12:00 PM Tuesday: 09:00 AM – 04:00 PM Thursday: 01:30 PM – 04:00 PM Friday: 09:00 AM – 04:00 PM Tel. 0-2849-6600 ext. 2611 (by appointment only)

Digital Diapers

The Analytical Sciences and National Doping Test Institute, Mahidol University, has created the first digital diaper innovation for adult in Thailand. This important research addresses the challenges of an aging society in Thailand. Designed for bedridden patients and the elderly with chronic diseases, the diapers incorporate intelligent sensors that monitor and analyze substances in urine to indicate the wearer's health status in real-time. The data is then transmitted to a telemedicine monitoring system, allowing physicians and caregivers to promptly track critical conditions, such as sodium levels in patients with osteoporosis or parameters related to chronic kidney disease. This innovation enhances patients' quality of life while contributing to the improvement of the public health system and supporting long-term elderly care.



Sleep and Chronobiology Lab at Research Center for Neuroscience, Institute of Molecular Biosciences

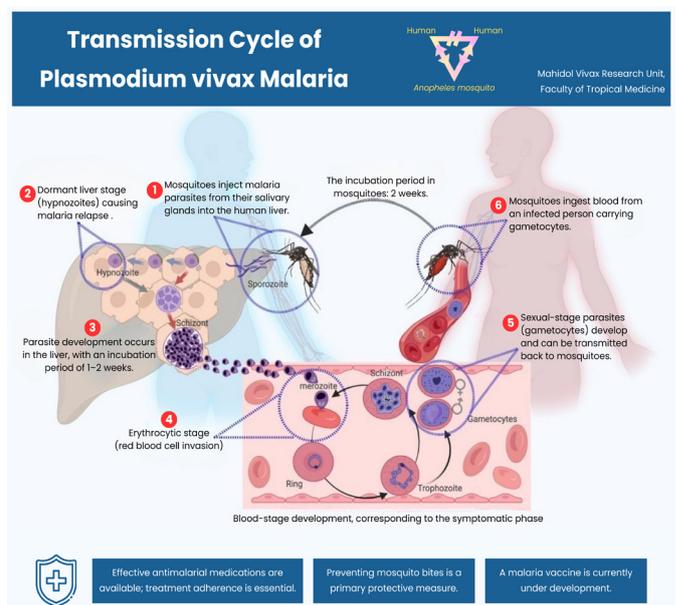
Insomnia is a critical issue affecting the physical, mental, and cognitive health of many Thais. Persistent insomnia, defined as difficulty sleeping at least 3 days a week for over a month, may indicate chronic insomnia, requiring medical consultation. Various causes include anxiety, excessive caffeine consumption, late-night exercise, doing unrelated activities in the bedroom for non-sleep activities, or underlying illnesses. Deep sleep is essential for learning and memory, especially for the elderly, who often lose over 70% of their deep sleep compared to younger adults. To address this, Mahidol University established the Sleep and Chronobiology Lab at the Research Center for Neuroscience, Institute of Molecular Biosciences. The lab studies the biological clock and factors contributing to insomnia, while conducting world-class research to develop treatments and innovations that improve quality of life. It also provides insomnia screening services to reduce long waiting times in general hospitals. Insomnia treatment begins with lifestyle and environmental adjustments and anxiety relief, while persistent cases require medical consultation for proper diagnosis and treatment.

Innovative Animations for NCD Prevention among Thais

The Faculty of Public Health, Mahidol University, has developed "Well-being Media: Innovative Animations for NCD Prevention among Thais." This multidisciplinary initiative aims to raise awareness and deepen understanding of non-communicable diseases (NCDs)—including obesity, diabetes, and hypertension—which remain major health concerns in Thailand and worldwide. Targeting both working-age and retired populations, the animations depict everyday urban lifestyles that increase NCD risks, such as bubble tea consumption, alcohol intake, and inappropriate elderly care. By presenting health information in an accessible and "relatable" way, and guided by the TCC principle (Trust, Comprehension, Conciseness) along with values of "care" and "responsibility", the initiative encourages sustainable behavioral change. Ultimately, it will help reduce the public health burden and contributes to improving quality of life by preventing NCDs in Thai society over the long term.

mRNA Vaccine for Plasmodium vivax Malaria (PV Malaria)

The Faculty of Tropical Medicine, Mahidol University, serves as a leading institution in tropical disease research, with long-standing expertise in malaria research, as Malaria is a major public health issue in tropical regions. In collaboration with global research networks, including the Mahidol-Oxford Tropical Medicine Research Unit (MORU), they have developed the Vivax Malaria mRNA Vaccine. The parasite has complex mechanisms and the ability to lie dormant in the liver and cause recurring symptoms, substantially driving up treatment costs. Building on the success of mRNA technology from COVID-19 vaccines, this innovation aims to test the Vivax Malaria mRNA Vaccine in Thai volunteers, targeting readiness within 5 years. This vaccine will not only reduce morbidity and mortality but also foster the development of medical research personnel. It is invaluable in combating malaria, an ongoing global public health challenge, particularly among underprivileged groups, while improving the quality of life for both these communities and global citizens.



cr. Mahidol Vivax Research Unit; MVRU

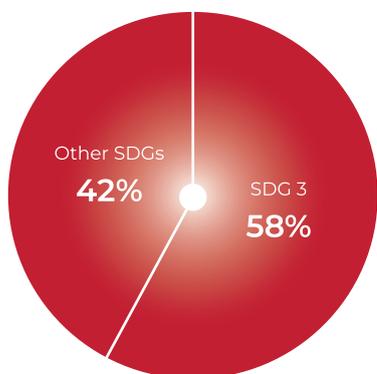


<p>491 Researchers</p>	<p>689 Research output</p>	<p>114 Research units</p>
----------------------------	--------------------------------	-------------------------------

SDG 4 : QUALITY EDUCATION

Research and Publication

In 2024, Mahidol University published 2,751 research works aligned with sustainable development (based on the Scopus database). Approximately 58% of these publications were related to Sustainable Development Goal 3 (SDG3)—Good Health and Well-Being—reflecting the University’s strengths in medicine, public health, and health sciences, supported by its strong faculties, institutes, and centers. Nevertheless, the University continues to develop and prioritize other disciplines, including science, technology, engineering, liberal arts, and social sciences, as evidenced by the remaining 42% of publications aligned with other SDGs. Research projects and funding in these areas remain comparable in scale to those in health sciences.



SDGs	Publication	Proportion
SDG 1	16	0.58 %
SDG 2	90	3.27 %
SDG 3	1,593	57.91 %
SDG 4	98	3.56 %
SDG 5	54	1.96 %
SDG 6	74	2.69 %
SDG 7	102	3.71 %
SDG 8	83	3.02 %
SDG 9	106	3.85 %
SDG 10	87	3.16 %
SDG 11	68	2.47 %
SDG 12	116	4.22 %
SDG 13	70	2.54 %
SDG 14	57	2.07 %
SDG 15	70	2.54 %
SDG 16	67	2.44 %
Total	2,751	100.00 %

In 2024, the University received more than 2.437 billion baht in research funding for 4,659 projects, comprising 1,727 projects in Science, Technology, Engineering, and Mathematics (STEM); 2,571 projects in Medicine, Public Health, and Health Sciences; and 361 projects in Liberal Arts, Humanities, and Social Sciences.

Research by subject area	Number of Project	Research Fund (million Baht)	Research Fund (Baht)
Science, Technology, Engineering, and Mathematics	1,727	562	562,053,289
Health, Medicine, Public Health, and Health Sciences	2,571	1,642	1,642,271,330
Arts & Humanities / Social Sciences	361	233	233,267,399
Total	4,659	2,437	2,437,592,018

MU-ALL



Mahidol University ensures inclusive and equitable quality education and promotes lifelong learning opportunities for all, in line with the Lifelong Learning Policy. The aim is to provide educational opportunities without discrimination, catering to people of all ages and accessible anytime, anywhere—a fundamental pillar for achieving the Sustainable Development Goals (SDGs). To facilitate this, the Mahidol University Authentic Lifelong Learning (MU-ALL) website has been developed, consolidating information on courses, training programs, and learning resources of Mahidol University to make them easily accessible to all.

Mahidol Channel Academy

Mahidol Channel has been delivering high-quality edutainment programs (combining education and entertainment) for over 10 years and remains committed to creating a learning space and supporting skill development and quality of life. The Mahidol Channel Academy (MCA) organizes existing programs into online courses while also producing new MCA online courses. These are delivered by experienced professors, physicians, staff, and students, and are rigorously reviewed before publishing to ensure credibility and accuracy. Courses continue to be offered in an edutainment format to maintain engagement and enjoyment. Participants will receive a certificate from Mahidol University for educational or professional development.



01 The Gateway to All Learning at Mahidol
 MU-ALL is a one-stop website that compiles Mahidol University's courses and training programs in one place. It allows you to conveniently search for and access learning opportunities of interest, categorized by provider, learner group, content, learning format, instructor, skills, and specific courses or programs.

02 Learn with Experts
 MU-ALL offers courses and programs taught by professionals with knowledge, expertise, and real-world experience across various disciplines. Instructors include Mahidol University faculty, alumni, and guest lecturers from partner organizations, ensuring learners can be confident in the quality of education.

03 Meeting Diverse Learning Needs
 MU-ALL provides courses and programs designed to serve diverse groups of learners—whether high school students seeking credit transfer for future undergraduate or graduate studies, those pursuing specialized continuing education, or individuals aiming to upskill/reskill for career development and lifelong learning at any stage of life.

04 Learning Designed by You
 Individual learners can create their own learning accounts to accumulate credits within Mahidol University's credit bank system. Meanwhile, HR departments or organizations can utilize MU-ALL's Learning Facilitator service to design tailored learning pathways that meet their specific organizational goals.



- Accurate knowledge
- Enjoyable learning through edutainments
- Certificates of achievement
- Academic credits



Mahidol University Flexible Education (MUFE)

Mahidol University offers free online course registration to the general public through the Mahidol University Extension (MUX) system. This initiative aligns with the National Education Strategy 2017–2036, which aims to provide quality education and lifelong learning opportunities for all Thais, empowering them to lead fulfilling lives. In 2020, the University developed the Mahidol University Flexible Education (MUFE) system, an online learning system that allows learners to access knowledge sources anytime, anywhere. Learners can select courses based on their interests and accumulate credits even before formal admission to Mahidol University through the regular admission system. The MUFE system has continued to evolve, enabling students in regular programs to choose additional courses in their fields of interest. Upon graduation, students may earn both a bachelor's and a master's degree in their chosen discipline. Through this standardized online education system, Mahidol University has created an Education Ecosystem that is believed to be truly beneficial for students and enhance educational quality that supports life-integrated learning.



Mahidol University Career Advancement Program Batch 2: MUCAPII



Mahidol University's Student Affairs Division organized the Mahidol University Career Advancement Program Batch 2 (MUCAPII) to enhance students' potential and prepare them for future careers. The program focuses on developing essential skills such as communication, collaboration, problem-solving, and creativity, as well as helping students identify their aptitudes and career interests. Key benefits for students include gaining knowledge and experience through a variety of activities, including workshops, expert lectures, mentor-mentee engagements in career fields of interest, and field visits to organizations. These experiences build confidence, strengthen skills, and enable a smooth transition into the workforce. MUCAPII also serves as a bridge that provides networking opportunities with entrepreneurs and industry experts. This is crucial for laying the foundation of a career path beyond academic learning by honing soft skills and strengthening career readiness. The program contributes to developing a quality workforce capable of driving national progress.



312
Researchers691
Research
output84
Research
units

SDG 5 : GENDER EQUALITY

Population

In the 2024 fiscal year, the University has a total of 68,963 population including 39,242 of staff and 29,721 of students.

Regular Service	Number of services		
	Total	Male	Female
Academic Staff	4,124	1,851	2,273
Lecturer	1,325	608	717
Professor	169	82	87
Associate Professor	1,157	522	635
Assistant Professor	1,318	593	725
Researcher	155	46	109
Supporting Staff	35,118	7,998	27,120
Operational Support Assistant	13,996	3,909	10,087
Operational Support	4,711	952	3,759
Academic Support	4,176	1,187	2,989
Specific Profession Support	12,235	1,950	10,285
Grand Total	39,242	9,849	29,393

Educational level	Number of services		
	Total	Male	Female
Diploma	676	182	494
Bachelor's degree	22,495	8,635	13,860
Graduate Diploma	7	3	4
Master's degree	4,266	1,404	2,862
Higher Graduate Diploma	699	261	438
Doctoral degree	1,578	702	876
Grand Total	29,721	11,187	18,534



Festival

In celebration of Pride Month, Mahidol University organized a series of Gender Festival activities to promote gender equality, sexual diversity, and awareness of women's rights, while also providing inclusive spaces for all identities to express themselves with pride. These activities created safe platforms for dialogue and advocacy for gender diversity rights, underscoring the University's commitment to diversity, equality, and human rights. Some of the activities are listed below.

Mahidol University International College (MUIC) hosted the Gender Festival, featuring activities such as:

- **Panel Discussion: "Gender Identity: Mental Health and Self-Confidence"** – discussing gender identity, psychological well-being, and self-confidence.
- **"Best-Dressed Pride" Costume Contest** – featuring exhibitions and games to enhance understanding of diversity and inclusion.
- **Pride Through Different Lenses x Film Club** – screening 3 LGBTQ+ films that highlight diverse cultural perspectives and issues within the LGBTQ+ community.
- **Blooming Self Workshop x Nature Lovers Club** – learning the art of Japanese flower arranging (Ikebana) as an expression of the beauty of diversity and individuality.
- **EmpowerU Lab Day x Genscape Club** – workshops brainstorming ways to create safe spaces in educational institutions and fostering understanding of gender diversity.
- **Shades of Love x Art Club** – painting personal visions of "safe spaces" on canvas as a form of expressing self-pride and fostering inner healing.

Additionally, the Institute for Human Rights and Peace Studies organized a panel discussion titled "Queeriosity: Stories of Strength and Solidarity for LGBTQIA+ Rights" to amplify the voices of the queer community and promote allyship in building safe spaces for dialogue and collective advocacy for gender diversity rights.

Sexual Health Clinic

Mahidol University promotes gender equality and health rights by establishing gender diversity clinics within its affiliated hospitals to provide comprehensive medical services tailored to the LGBTQ+ community. The main services are offered at 2 locations:

- Gen V Clinic, Ramathibodi Hospital
- SI-PRIDE Clinic, Siriraj Hospital



Sexuality Education Program for Blind Man

Mahidol University is committed to ensuring equal access to sexuality education—an essential foundation for developing life skills, well-being, and healthy relationships in society. The program particularly focuses on youth with visual impairments, who face learning limitations and certain challenges, such as difficulties in understanding anatomical differences between male and female individuals, interacting with sighted individuals, and practicing the prevention of committing and falling victim to sexual harassment.

Recognizing that visually impaired youth learn primarily through touch and need to be able to access and use various media wisely, the Rajasuda Institute, Faculty of Medicine, Ramathibodi Hospital, in collaboration with the Thai Health Promotion Foundation (ThaiHealth), developed a comprehensive sexuality education program and teaching model. This program, developed between November 2021 and May 2024, aimed to empower visually impaired youth to care for themselves safely, build respectful relationships, and protect their rights sustainably. Key development processes included:

- Conducting a literature review regarding learning barriers for visually impaired youth
- Designing and developing knowledge modules tailored to the needs of the target group
- Creating accessible media, such as:
 - Facebook: “Love is not blind”
 - The “Sexuality Q&A for Blind Youth” video series on YouTube, currently featuring 16 episodes, providing a safe platform for youth to learn and consult experts about sex
 - Educational materials addressing the intersectionality of disability and gender diversity, interactions between visually impaired and sighted individuals, and safe relationship-building through social media without rights violations.
- In this initiative, 2 youth learning camps were also organized to promote practical learning:
 - Camp 1: 40 visually impaired youth from the Thai Youth Club of the Blind participated and learned through real tools, role-playing, online Q&A, and diversity awareness activities
 - Camp 2: 20 youth leaders from Camp 1 were selected to practice communication skills, provide basic counseling, and share knowledge about sexuality with peers in the community.

'LOVE' is NOT Blind



cr. Youtube: Love is NOT Blind



cr. Facebook: Love is NOT Blind

Estimating the Size of the LGBTQ+ Population and the Life and Health Situation of LGBTQ+ People

The Institute for Population and Social Research, in collaboration with the Thai Health Promotion Foundation, the National Statistical Office, and civil society partners, including representatives of the LGBTQ+ community, is implementing a major initiative on gender equality and inclusion on a national scale. The primary goal is to establish a concrete understanding and recognition of the LGBTQ+ population in Thailand. This represents a pivotal step in shaping policies that genuinely address the needs of the LGBTQ+ community. For the first time, Thailand is undertaking a systematic estimation of its LGBTQ+ population, with the following aims:

- To estimate the size of the LGBTQ+ population in Thailand using a systematic, quantitative survey methodology
- To conduct a survey on the life and health conditions of LGBTQ+ individuals, with a focus on health literacy levels
- To develop survey instruments and approaches that can be further applied at the local level and used in data system-based policymaking.

Data collection tools include household questionnaires and individual interviews addressing gender identity, sex, sexual orientation, patterns of attraction, health status, health literacy, and relevant social factors. Fieldworkers will undergo training on gender diversity to prevent bias and ensure safe data collection.

This initiative reflects Mahidol University's role as a leading academic institution in evidence-based public policy development. At the same time, it embraces the principle of "Leave No One Behind" to foster gender equality in all dimensions, fully aligned with the Sustainable Development Goals.





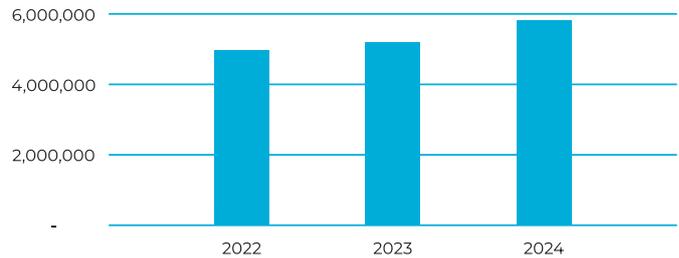
 327 Researchers	 767 Research output	 82 Research units
---	--	--

SDG 6 : CLEAN WATER AND SANITATION

Water Consumption

In the 2024 fiscal year, the entire Mahidol University increase its water consumption by around 10.48%. A total amount of 5.82 million cubic meters of tap water was supplied for all our 6 campuses. Water consumption obviously decreased in May and June 2024. However, we have retained the water recycling from the wastewater treatment system. In case of Salaya campus, it is noteworthy that the water management system on campus is zero discharge or 100% recycled water

Water Consumption (cubic meter) of Mahidol University in fiscal year 2022-2024



Free Drinking Water

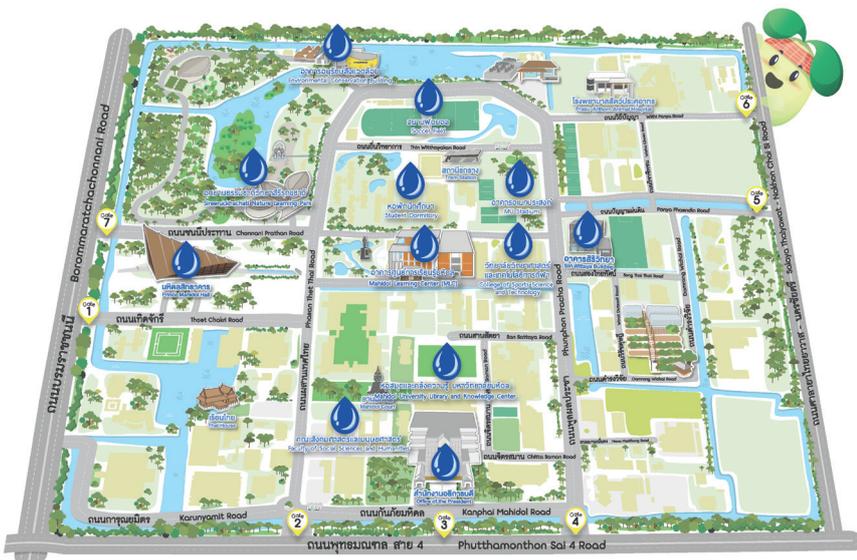
Mahidol University has installed 23 complimentary drinking water dispensers across 12 key public areas within the Salaya campus. Following

- Siri Wittaya Building, 2 dispensers
- Mahidol Learning Center (MLC), 4 dispensers
- Sireeruckhachati Nature Learning Park, 2 dispensers
- Office of President, 2 dispensers
- Student Dormitory, 2 dispensers
- Mahidol University Library and Knowledge Center, 4 dispensers
- Environmental Conservation Building, 1 dispenser
- Soccer Field, 1 dispenser
- Cafeteria of the Faculty of Social Sciences and Humanities, 1 dispenser
- College of Sports Science and Technology, 2 dispensers
- Prince Mahidol Hall, 1 dispenser

This initiative ensures that students, staff, and visitors have convenient access to clean, safe drinking water. A total amount of 795.45 million cubic meters of free drinking water. Additionally, providing free drinking water machines also responds to plastic waste reduction policies since it encourages people to bring their own water containers. In 2024, we found that the project achieved the reduction of 450 ml plastic bottles as the maximum of 1.77 million bottles reduced.

Drinking Water Dispenser Installation Points

- อาคารสิริวิทยา จำนวน 2 จุด (Siri Wittaya Building, 2 dispensers)
 - หน้าห้องผู้ชาย ชั้น 1 (The front of men's restroom)
 - หน้าห้องผู้หญิง ชั้น 1 (The front of women's restroom)
- อาคารศูนย์การเรียนรู้เพื่อสังคม จำนวน 4 จุด (Mahidol Learning Center (MLC), 4 dispensers)
 - ลานออกกกำลังกาย ชั้น 1 (Kan Phai Mahidol zone, 1st Floor)
 - ศูนย์อาหาร ชั้น 1 (MU Cafeteria, 1st Floor)
 - ทางเข้าศูนย์อาหารชั้น 2 (The entrance to the 2nd Floor of MU Cafeteria)
 - ศูนย์อาหาร ชั้น 2 (MU Cafeteria, 2nd Floor)
- อุทยานธรรมชาติวิทยาสิริรุกชาติ จำนวน 2 จุด (Sireeruckhachati Nature Learning Park, 2 dispensers)
 - ทางเข้าอาคารสำนักงาน (The entrance to office building)
 - บันไดหน้าอาคาร (Applied Traditional Thai Medicine Pavilion)
- อาคารสำนักงานอธิการบดี จำนวน 2 จุด (Office of President, 2 dispensers)
 - ชั้น 1 ซีกเหนือ (North, 1st Floor)
 - ชั้น 1 ซีกใต้ (South, 1st Floor)
- หอพักนักศึกษา จำนวน 2 จุด (Student Dormitory, 2 dispensers)
 - หอพักนักศึกษาชาย 6-7 (Male student dormitory 6-7)
 - หอพักนักศึกษาหญิง 11 (Female student dormitory 11)
- หอสมุดและคลังความรู้ มหาวิทยาลัยมหิดล จำนวน 4 จุด (Mahidol University Library and Knowledge Center, 4 dispensers)
 - บริเวณชั้น 1 จำนวน 2 จุด (1st Floor, 2 dispensers)
 - บริเวณชั้น 2 (2nd Floor)
 - บริเวณชั้น 3 (3rd Floor)
- อาคารอนุรักษ์สิ่งแวดล้อม จำนวน 1 จุด (Environmental Conservation Building, 1 dispenser)
- สนามฟุตบอล จำนวน 1 จุด (Soccer Field, 1 dispenser)
- ศูนย์อาหารคณะสังคมศาสตร์และมนุษยศาสตร์ จำนวน 1 จุด (Cafeteria of the Faculty of Social Sciences and Humanities, 1 dispenser)
- วิทยาลัยวิทยาศาสตร์และเทคโนโลยีการกีฬา จำนวน 2 จุด (College of Sports Science and Technology, 2 dispensers)
 - ประตูทางเข้าอาคาร (Building entrance)
 - สระว่ายน้ำ (Swimming pool)
- อาคารอนุประเศศ บริเวณกีฬาสี จำนวน 1 จุด (South of MU Stadium, 1 dispensers)
- หอศิลปนิพนธ์ จำนวน 1 จุด (Prince Mahidol Hall, 1 dispensers)



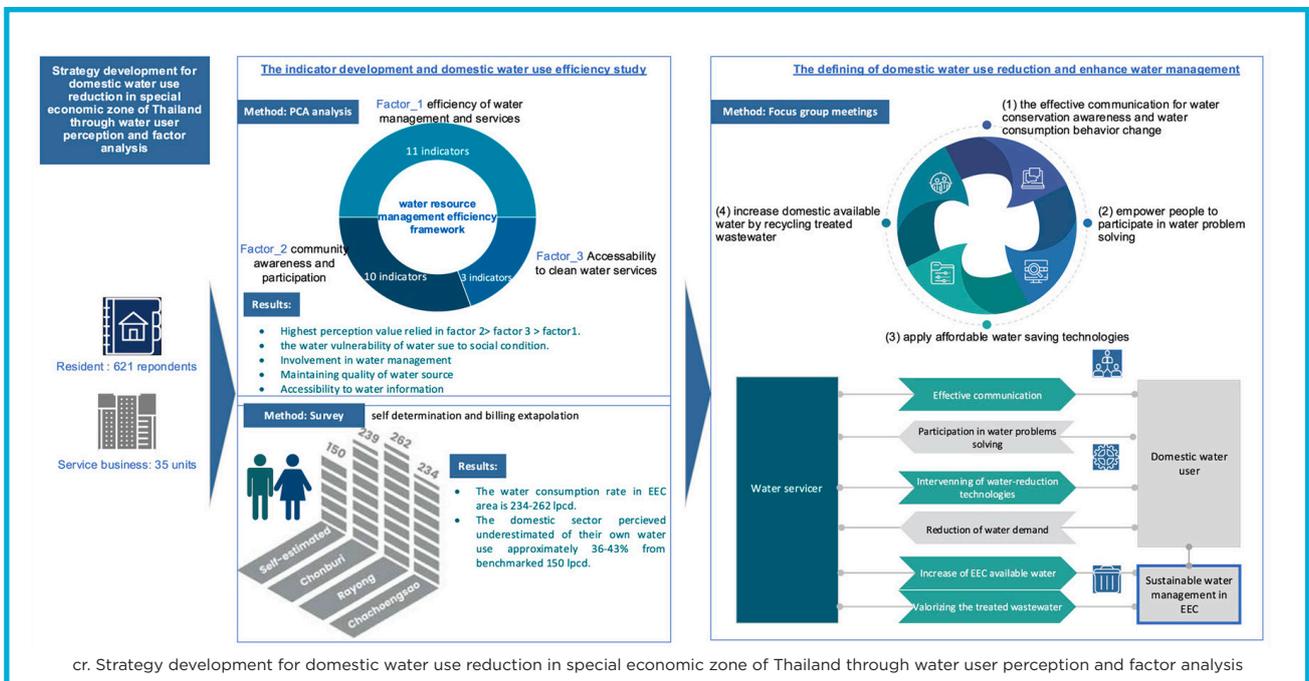
The ASEAN Institute for Health Development contributed to a study evaluating the effects of river basin plans on water stress in Thailand's economic development areas. The study found that the rapidly increasing water demand necessitates strategic water management to ensure both efficiency and accessibility. In Thailand's Eastern Economic Corridor (EEC) Project, water demand rose by 54% between 2005 and 2018, leading to water management plans that rely on pipe diversion. However, these plans tend to merely shift water scarcity issues rather than resolve them, due to existing limitations and climate uncertainties. Using distributed hydrological modeling, the Water Stress Index assessed the impact of various scenarios, including the 3Rs approach, and noted a 26% reduction in dry-season rice cultivation, while some river basins continue to experience extreme water stress. The study suggests that integrating multiple scenarios can better mitigate water stress, improve the Water Stress Index, and more effectively identify critical water reduction strategies.

Strategy Development for Domestic Water Use Reduction in Special Economic Zone of Thailand Through Water User Perception and Factor Analysis

The ASEAN Institute for Health Development contributed to a study aimed at addressing domestic water management challenges in Thailand's Eastern Economic Corridor (EEC), a region experiencing rapid development and increasing water demand. Using a mixed-methods approach and survey data from 621 respondents, the study revealed several key insights:

- A new domestic water management framework was developed, grounded in user perceptions.
- A significant gap exists between self-perceived and actual water consumption, highlighting difficulties in enforcing water reduction policies.
- Efforts to promote water conservation are hindered by entrenched behavioral patterns.
- Importantly, the study is the first to report public acceptance of wastewater recycling in Thailand, provided that water quality and intended use are appropriate.

The findings underscore the importance of fostering public engagement, improving awareness, and integrating behavioral insights into water management strategies to ensure sustainable resource use in high-demand development zones.



cr. Strategy development for domestic water use reduction in special economic zone of Thailand through water user perception and factor analysis



<p>367 Researchers</p>	<p>1,057 Research output</p>	<p>86 Research units</p>
-----------------------------------	---	-------------------------------------

SDG 7 : AFFORDABLE AND CLEAN ENERGY

Electricity Consumption

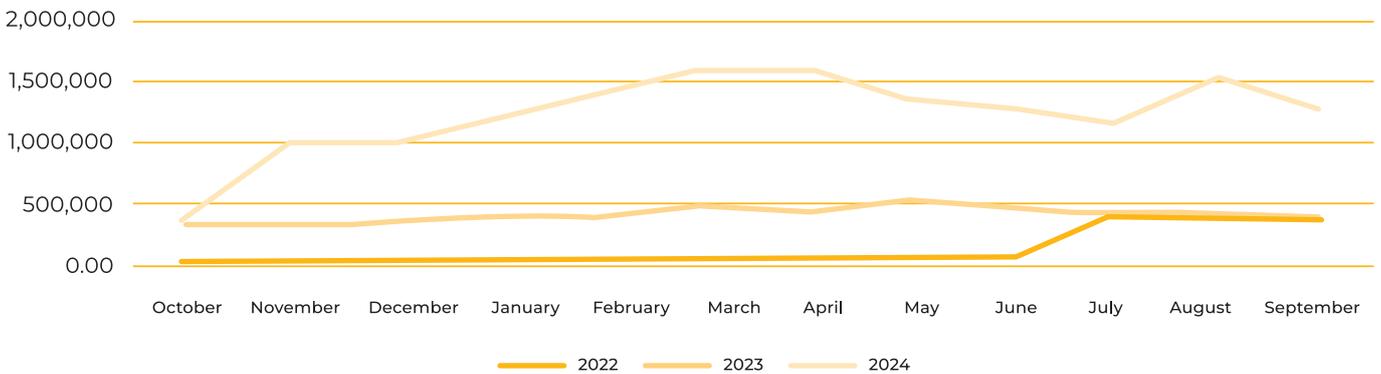
In the 2024 fiscal year, Mahidol University reported total electricity consumption from the Electricity Authority and solar rooftop systems at 389,671 MWh. This represented an increase of approximately 7.28 percent compared to the previous year.

Renewable Electricity Consumption

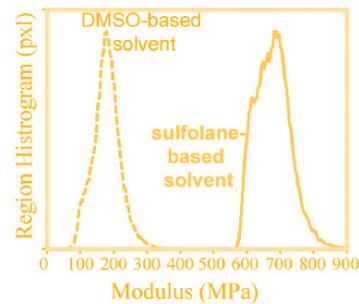
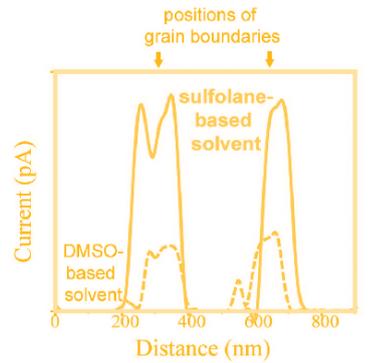
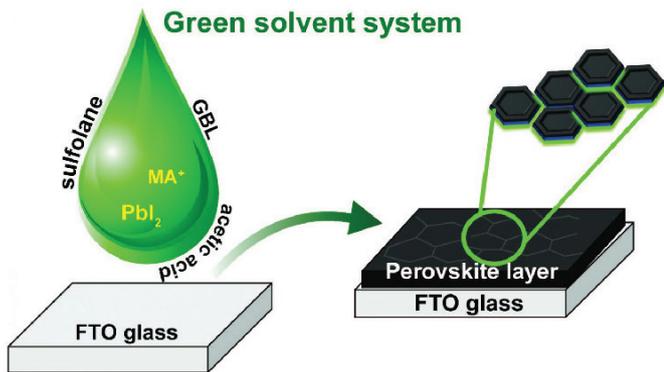
Mahidol University has generated a total of 14,812 MWh of solar power across all campuses. In 2024, the University expanded its renewable energy efforts by installing solar energy systems on the rooftops of 4 additional locations: the Faculty of Medicine Siriraj Hospital, Faculty of Tropical Medicine, Chakri Naruebodindra Medical Institute, and Mahidol Bumrungrak Nakhonsawan Medical Center. As of now, the University has installed a total solar capacity of 18.73 megawatts (MW). In 2025, an additional 1.66 MW is being installed, with further expansion plans underway to support long-term sustainability goals.



Renewable energy consumption (kWh) of Mahidol University in fiscal year 2022-2024

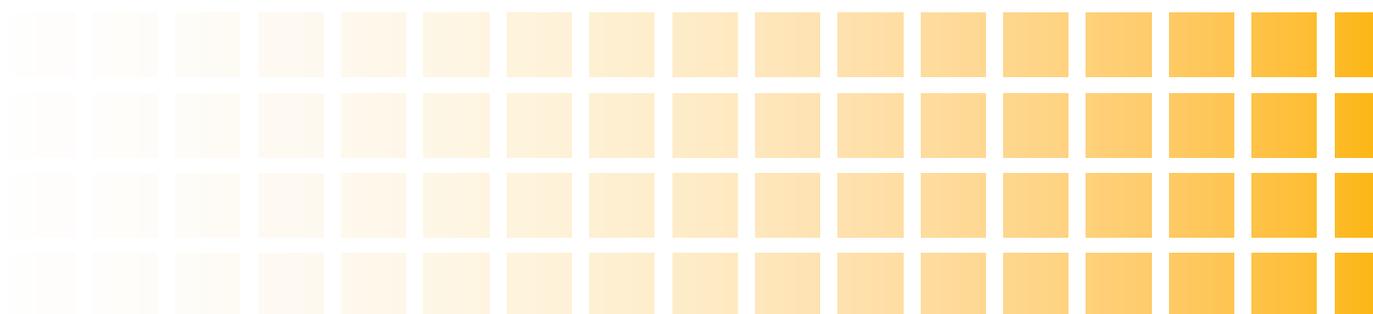


The Faculty of Science is advancing photovoltaic technology by developing safer, eco-friendly materials that enhance energy conversion efficiency. Perovskite photovoltaics stand out as a promising solution to meet global energy demands sustainably. However, large-scale manufacturing requires replacing hazardous solvents with greener alternatives to ensure environmental and human health safety.



This research introduces a novel, environmentally friendly solvent system composed of sulfolane, γ -butyrolactone (GBL), and acetic acid (AcOH). Beyond its green credentials, this solvent system improves the quality of the perovskite layer by producing larger crystals with enhanced rigidity at grain boundaries, facilitating better electrical conductivity. The sulfolane-infused interfaces between crystals also serve as effective moisture barriers, boosting device stability and performance.

Using a mixed solvent ratio of 70.0:27.5:2.5 (sulfolane:GBL:AcOH), the resulting solar cells demonstrated stability and photovoltaic efficiency comparable to conventional DMSO-based methods, without the associated environmental hazards. This breakthrough highlights the potential for sustainable commercialization of perovskite solar cells through thoughtful selection of green solvents, contributing to cleaner energy technologies and reducing environmental impact.





322
Researchers

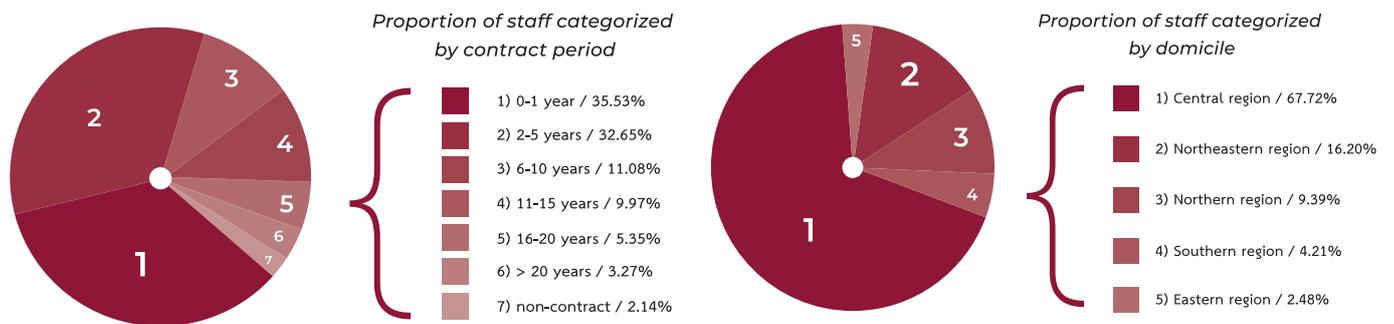
605
Research output

69
Research units

SDG 8 : DECENT WORK AND ECONOMIC GROWTH

Staff Employment

Mahidol University offers fair employment with accurate job descriptions. As seen in the figure below, the proportion of staff classified by the contract period is as follows: the number of staff with a 0-1 year contract comes out on top at 35.53%, followed by 32.65% of staff with a 2-5 year contract. However, when looking at contract periods of more than 5 years, which indicate more stability, decent employment, and economic growth, they, altogether, make up a greater proportion at 31.82%. In addition, the University offers employment in different areas throughout the country to ensure an even income distribution. Most of its staff have domiciles in the central region, at 67.72%, since 4 of the 6 campuses are located in the central region. There are still a number of staff from other regions.



Mahidol University's staff are distributed to different faculties/departments according to their corresponding positions and roles. Academic staff are divided into 4 groups, as shown in table, with the proportion of staff in the fields of (1) medicine, public health, and health science being the most at 69.83%, followed by staff in the fields of (2) science, technology, engineering, and mathematics (STEM), (3) arts, humanities, and social sciences, and (4) others, respectively.

Academic staff	Person	Percentage
Medicine, Public Health, and Health Science	2,880	69.83
Science, Technology, Engineering, and Mathematics (STEM)	699	16.95
Arts, Humanities, and Social Sciences	527	12.78
Others	18	0.44
Total	4,124	100.00

On-Campus Part-Time Jobs for Students

Mahidol University is committed to providing students with support and development opportunities that contribute to a good quality of life. To this end, the University has allocated a portion of its revenue budget to an initiative that enables students to earn extra income during school breaks or after class hours.

This initiative is designed primarily to help students take full advantage of their free time. It allows them to gain firsthand experience that strengthens their skills and prepares them for their future careers after graduation. In addition, these part-time jobs serve as an extra source of income that helps reduce the financial burden of education for both students and their parents. This initiative reflects the University's recognition of the need to prepare students for real-world careers.

Item	Fiscal Year 2024		
	Allocated Budget (Baht)	Amount Disbursed (Baht)	Number of Students in Part-Time University Employment (Persons)
Students Engaged in Work for Mahidol University	600,000	439,420	203
Quarter 1	-	39,900	43
Quarter 2	-	71,850	37
Quarter 3	-	115,080	53
Quarter 4	-	212,590	70

Enhancing Laboratory Safety Standards at Mahidol University

Mahidol University continues to advance and strengthen safety standards across its laboratories. As of now, 489 out of 605 laboratories (80.83%) have been upgraded to model safety laboratories, certified under the ESPReL (Enhancing Safety Practice in Research Laboratory) standards. To further promote a culture of safety, the University has also implemented a Peer Evaluation system, through which 90 laboratories (14.88%) received safety certification in fiscal year 2024. In addition, 3 laboratories (0.50%) achieved certification under the Thai Industrial Standard TIS 2677: Safety Management System for Chemical Laboratories, reflecting the University's commitment to internationally recognized safety practices.

Addressing Vulnerabilities of Migrant Workers to Human Trafficking and Exploitation in the Greater Mekong Sub-Region

Labor migration is a prominent feature of the economies of the Greater Mekong Subregion (GMS) with individual and collective economic benefits, yet migrant workers face systemic risks of exploitation and human trafficking. The ASEAN-Australian Counter Trafficking program (ASEAN-ACT) is working with partners to document these vulnerabilities and enhance the understanding of stakeholders focused on addressing the issues. The vulnerabilities are complex and multi-faceted, requiring ongoing analysis and adaptation to address. Ultimately, policymakers can best address the problem by engaging with this complexity, and developing coalitions of government and non-government actors to progress initiatives that support the safety and well-being of migrants, while pursuing economic development goals across the GMS

Policy recommendations and implications of the research

Despite ongoing and complex challenges, there are clear opportunities to improve protection for migrant workers in the Greater Mekong Subregion. Addressing these issues requires collaboration among diverse stakeholders. Countries of origin should reduce the time and cost of formal migration processes and ensure evidence-based approaches to prevent and respond to trafficking. Safe migration should be a guarantee of formal channels, but these must be made more accessible, efficient, and protective. Governments, especially in Thailand, are encouraged to recognize the long-term need for migrant labor and prioritize their rights within economic planning. Developing a regional migration management strategy that incorporates international standards, such as the ILO Fair Recruitment Guidelines, can enhance worker protection. The post-COVID recovery also presents a chance to promote inclusive policies that recognize the contributions of migrant workers. Efforts focused on human rights due diligence and the business and human rights agenda are gaining momentum in the region, particularly in Thailand, Indonesia, and Vietnam, and can serve as strategic platforms for further progress.



RESEARCH BRIEF

Addressing vulnerabilities of migrant workers to human trafficking and exploitation in the Greater Mekong Sub-region





 441 Researchers	 862 Research output	 108 Research units
---	--	---

SDG 9 : INDUSTRY, INNOVATION AND INFRASTRUCTURE

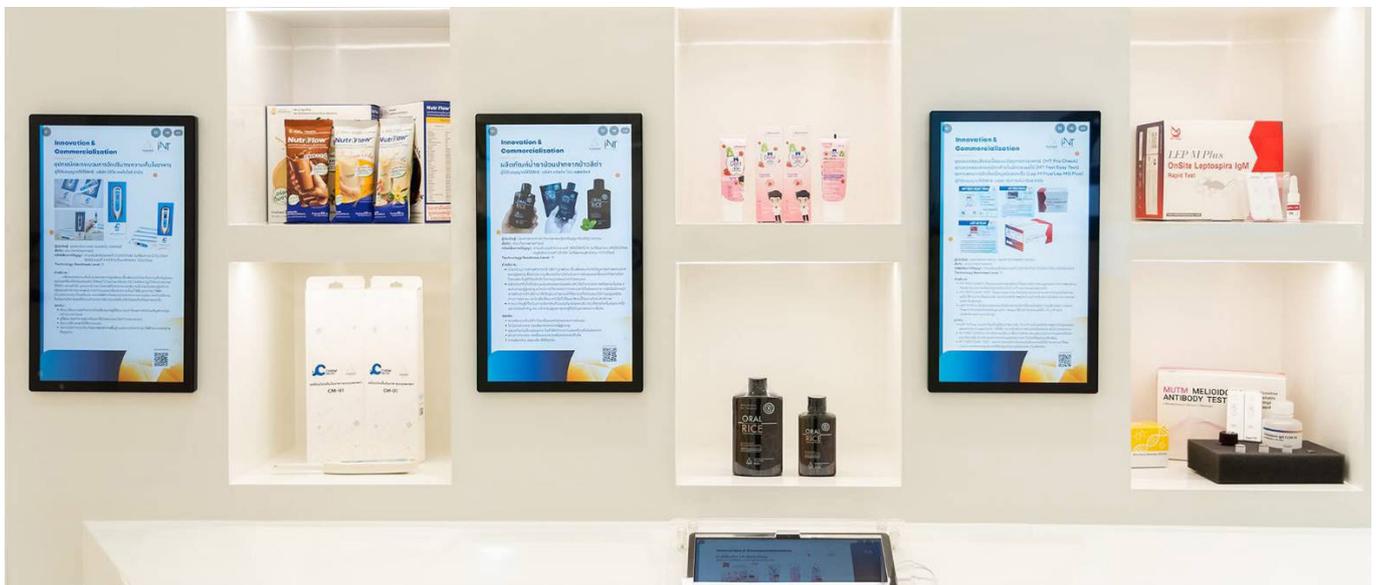
Intellectual Property

Mahidol University aims to promote and support the commercial and social application of knowledge, research, innovation, and technology. There have been collaborations with internal and external agencies, including industry, the public sector, and the private sector, to create an innovation ecosystem that facilitates the transformation of research into products and services that meet both domestic and international market demands. It also fosters an entrepreneurial mindset among faculty, researchers, staff, and students, while providing opportunities to become innovative entrepreneurs, thereby enhancing public well-being and contributing to the sustainable growth of the national economy.

Between 2022 and 2024, the University registered intellectual property rights for more than 2,516 research projects, including patents (domestic and international), petty patents, copyrights, trademarks, and trade secrets. By 2024, 45 spin-off companies had been established to advance innovations toward commercialization. Importantly, the University retains ownership of these intellectual properties for continued future use. In 2024 alone, Mahidol University generated 31,898,947 baht in revenue from the commercial use of 65 research and intellectual property projects.

Number of Registered Intellectual Property

Type	2022	2023	2024
Patent	9	30	2
International patent	0	24	58
Petty patent	30	52	67
Copyright	344	452	362
Trademark	15	9	3
Trade secrets	0	8	3



Mahidol Startup Portfolio

Mahidol University promotes startup creation and offers advice on intellectual property protection, registration, technology transfer, and joint benefit management between researchers and the University. Information on startups developed using University technology is categorized and published on <https://int.mahidol.ac.th> to connect with industry and investors.

The screenshot shows the 'iNT Startup Portfolio' website interface. On the left is a blue sidebar menu with categories: Dashboard, Health Tech, Medical Device, Medical Tech, Food Tech, Agri Tech, Green Tech (highlighted), Lifestyle Tech, Business Tech, Society Tech, Sport Tech, Robotics, Ed Tech, Fin Tech, and Material Tech. The main content area is titled 'Green Tech' and features a search bar. It displays a grid of 12 startup cards, each with a logo, name, and affiliation. The startups shown are: TKN22 (Faculty of Science), Wholesome Lab (Faculty of Science), BrainTeazer (Faculty of Engineering), AIF (Kanchanaburi Campus), MU Screen (Kanchanaburi Campus), เครื่องดนตรีพลาสติก (Faculty of Environment and Resource Studies, Kanchanaburi Campus), LitYa (Faculty of Engineering, Faculty of Information and Communication Technology), MU Refill Rethink (Nakhonsawan Campus, Kanchanaburi Campus, Faculty of Engineering), Klong Klean (Faculty of Engineering, Faculty of Information and Communication Technology, Nakhonsawan Campus, Faculty of Environment and Resource Studies), Eco-greenmask (Kanchanaburi Campus, Faculty of Medicine Ramathibodi Hospital), Old to Bag (Annat Charoen Campus), and Evergen Technologies (Faculty of Science).

Examples of startups found by professors, researchers, and students include:

1. High-protein egg white and fruit juice beverages by NutriCious
2. Portable device for measuring liquid food salinity by Chem Meter
3. Brain-computer interface movement rehabilitation system for stroke patients
4. Jelly Honey, a natural product from coffee plants and bees with anti-hand-foot-and-mouth disease properties
5. A preliminary chemical residue screening system for agricultural products by ONSPEC Technology, providing fast and accurate results with cloud-based data transmission.
6. A mental health care metaverse from Mind Friend that allows people to interact and participate in various activities as an avatar and uses AI to process and detect emotions
7. An innovation for systematic waste capture in water sources with autonomous movement in designated areas by Klong Klean
8. A portable walking pattern tracking device for Parkinson’s patients by L-Walk

Mahidol x Super AI Hackathon 2024

was organized to provide students with an opportunity to enhance their algorithmic problem-solving and programming skills. This hackathon focused on applying Artificial Intelligence (AI), particularly Large Language Models (LLMs), in healthcare and medicine. The event fostered collaborative learning, teamwork, systems thinking, and prototype development for real-world applications.

Mahidol SDGs Impact Challenge 2024

was organized to encourage students to apply Design Thinking to solving problems related to the Sustainable Development Goals (SDGs) and propose solutions with long-term social, economic, and environmental impact. Students worked in a social enterprise format through a process of mentoring and pitched their innovations to government agencies, private sector partners, and venture capital (VC) investors. This event eventually led to the emergence of innovative businesses, such as BrainTeazer Co., Ltd.—developer of an automated bacterial culture system for polyhydroxybutyrate (PHB) production, and BridgeWork Co., Ltd.—a service provider promoting employment opportunities for people with disabilities across various industries in Thailand. This effort highlights Mahidol University’s role in nurturing innovators into entrepreneurs who create tangible social impact.



cr. Institute for Technology and Innovation Management



Research and Innovation Highlights

Mahidol University strives to drive advancements in industry, technology, and infrastructure through research and innovation across diverse fields. The University emphasizes translating technologies from prototypes into practical applications to address social and economic challenges. This underscores Mahidol University's role in promoting sustainable industrial and technological development through research, application, and technology transfer, with notable highlights including:

- **Biologics and Vaccines** — development of biotechnology for producing proteins and double-stranded RNA from *E. coli* to strengthen disease resistance in economic animals such as shrimp; and development of cell therapy (CAR-CD19 Therapy) for targeted leukemia treatment.
- **Drug Discovery** — research on new bioactive compounds from Thai herbs, such as the false earthstar mushroom (*A. asiaticus*), which shows inhibitory effects against herpes simplex virus and hand-foot-and-mouth disease; VS9 peptide extract from garlic, which suppresses leukemia cells; and white fingerroot, containing pinostrobin and panduratin, which in the right proportion can inhibit coronavirus (COVID-19).
- **Medical Devices** — development of medical simulation devices and eye disease treatment models to enhance medical students' skills; and a low-cost and user-friendly rapid salmonella test kit for application in the food industry.
- **Medical Robotics** — development of a mental health care robot for the elderly, capable of monitoring emotional states 24/7 to prevent or help manage conditions that may develop into mental health problems. In addition, researchers advanced a dipping coating method.
- **Functional Food** — formulation of Happetite, an appetite stimulant drink for cancer patients, combining Thai herbs, vegetables, fruits, and superfood extracts, offering high antioxidant (ORAC) values while preserving maximum nutritional content. Riceberry jelly has also been developed to support individuals with dysphagia.
- **Miscellaneous** — design of a grease trap device as a triangular box with an optimized tilt, reducing trapping time, minimizing contact with oil and grease, and ensuring consistent grease trapping efficiency. This innovation reduces clogging in wastewater treatment system and serves both environmental and food industry needs.



cr. Institute for Technology and Innovation Management



cr. Institute for Technology and Innovation Management



350
Researchers



622
Research
output

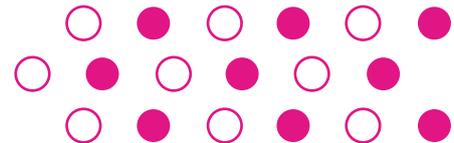


97
Research
units

SDG 10 : REDUCED INEQUALITIES

Nationality & Disability

Mahidol University has implemented concrete policies and measures to promote equality, reduce inequality, and foster an inclusive and equitable environment for all. These efforts are grounded in the principle of “Leave No One Behind” and are carried out through the admission of students from vulnerable groups, including students with disabilities, stateless students, and ethnic minorities, along with the provision of learning aids, scholarships, and facilities that support equitable living conditions. The University also allows students to dress according to their gender identity, regardless of their sex at birth, both in class and during graduation ceremonies.



In addition, Mahidol University promotes gender equality in recruitment, career development, and education. Internal departments are encouraged to integrate these policies into their work processes, including academics, research, and campus life. These measures aim to reduce discrimination and foster an institutional culture that respects diversity and provides equal opportunities for all to thrive.

In the 2023 academic year, Mahidol University had a total enrollment of 29,721 students, of whom 1,671 were international students, accounting for 5.62%. Among the total, 82 students had disabilities, including visual impairments, hearing impairments, physical disabilities, learning disabilities, autism, or multiple disabilities, representing 0.28% of the student population.

Educational level	Total number of students	Number of international students	Number of students with disabilities
Diploma	676	15	-
Bachelor's degree	22,495	634	75
Graduate Diploma	7	2	-
Master's degree	4,266	599	6
Higher Graduate Diploma	699	2	-
Doctoral degree	1,578	419	1
Grand Total	29,721	1,671	82

Support Services for Students with Disabilities

Mahidol University prioritizes equal access to campus facilities for everyone. In the Salaya area, there are 275 ramps, 307 restrooms accessible to all groups of users, and 47 wheelchair drop-off points. In addition, the University has improved public transportation routes, including sidewalks and bicycle paths, by adding ramps to ensure convenience and uninterrupted movement. The University also promotes equal learning opportunities through the Mahidol Disability Support Services (DSS Mahidol), which provides comprehensive and ongoing support in both academic and daily life aspects to help all students participate fully and equitably in campus life, including services such as:

- **Services Provided for Visually Impaired Students**

The University supports students with disabilities to ensure equal access to learning. This includes producing Braille and embossed materials, preparing course materials and examinations in accessible formats, and converting PowerPoint and PDF files to Microsoft Word. The University also provides screen reader software for blind students and screen or document enlargement software for students with low vision. In addition, assistive technology devices such as computers, 20- and 40-cell Braille displays, portable voice recorders, audiobook players, and cameras are available for loans to support reading and study.

- **Services Provided for Students with Mobility Disabilities**

The University provides advice and coordinates with various faculties and departments to assess individual needs, including the design and renovation of buildings, classrooms, and facilities to ensure accessibility and safety. It also offers loan services for essential assistive devices, such as computers, USB switch interfaces, Trackball Universal Switch Mounting Systems, wheelchairs, and portable ramps.

- **Teaching for Hearing Impaired Students**

Mahidol University promotes teaching for deaf students based on the principles of Universal Instructional Design (UID), which include designing classrooms free of visual obstructions, using appropriate learning materials, and providing multiple ways for students to demonstrate their knowledge. Note-taking assistance is available, along with wireless microphones to facilitate in-class communication and audio equipment control to prevent interference. Key points are summarized on whiteboards or through projection media, visual aids and supporting documents are prepared as needed, and learning materials are provided in electronic formats.

- **Teaching for Students with Learning Disabilities**

Volunteers provide note-taking support, and audio recordings are allowed for review. Instructors use clear and easy-to-understand language, provide captions, and seat students at the front to minimize visual distractions. Appropriate breaks are offered, and a variety of teaching methods are employed, including oral instruction and visual aids. Peer assistance is also permitted during laboratory experiments.

- **Examinations for Students with Disabilities**

The University provides appropriate examination arrangements to meet individual needs. These include extended testing time to allow the use of assistive technology for students with visual impairments, typing of answers for students with mobility impairments, and additional time for students with health conditions, learning disabilities, or attention deficit disorders. The University also arranges separate testing environments for students who are sensitive to distractions, require assistive devices, or need specific settings. Supportive technology such as screen magnifiers, screen readers, Braille displays, and computers for typing answers is available. In addition, the University provides volunteer assistants, suitable desks, adequate lighting, examination breaks, and scheduled exam times as required.

In the 2023 academic year, statistics show that students with disabilities received support services totaling 551 hours across 146 instances, as follows:

Types of Services for Students with Disabilities, Academic Year 2023	Number of service (times)
1. Prepare Braille materials for students with visual impairments.	3
2. Format documents for students with visual impairments.	12
3. Convert PDF and PPT files to Word for students with visual impairments.	19
4. Provide assistive technology equipment for students with disabilities to loan.	15
5. Install speech synthesis software for students with visual impairments.	2
6. Offer advice, consultation, tutoring, and training in various disability-related skills.	38
7. Provide educational and other support services for students with hearing impairments.	49
8. Offer other services related to disabilities.	8
Total	146

Inclusive Society

Mahidol University organizes special activities for vulnerable student groups to foster a university of equality that leaves no one behind, recognizing that everyone has equal potential. This initiative aims to make Mahidol University an inclusive community.

1. MU disABILITY Film Festival 2024

The Volunteers for Disabled Friends Project hosted the MU Disability Film Festival 2024 to increase understanding of the lives of people with disabilities through films, seminars, and knowledge-sharing activities. 3 films were screened: Please Stand By (March 20), Touch of the Light (April 3), and Wonder (April 10), with a total of 261 students attending. After the screenings, a discussion was held to create a learning space that encouraged awareness, understanding, and positive attitudes toward people with disabilities, while promoting the idea of equal coexistence both within the university and in society at large.

2. Project to Promote and Develop the Potential of Students with Disabilities

Mahidol University organized a study tour to enhance employment opportunities for students with disabilities. The activity aimed to inspire students to develop their potential and establish a collaborative network with external agencies to support pre-graduation internships. 6 students with disabilities participated in visits to Thai PBS and STEPs with Tera, which helped the University build a network to support internships and employment opportunities. During the tour, the University also explored a model for developing work skills for individuals with autism, covering life skills, soft skills, and career skills, along with a training system that can be applied to fostering the potential of students with disabilities on campus. Additionally, the University organized Disabled Student Assistance Activities involving 4 students with disabilities: 2 with physical disabilities, 1 with autism, and 1 with visual impairment. The visually impaired students also received training on using public transportation (MRT) to promote independent living—an essential skill for preparing them for future careers with equal opportunities.

3. 3C Forum: Inclusive Higher Education for Refugees

(3C stands for Collaborate, Create, Change) is now in its 7th year and is held in collaboration with Mahidol University, Opening Universities for Refugees (OUR), the Centre for Asia Pacific Refugee Studies (CAPRS), the United Nations High Commissioner for Refugees (UNHCR), and the International Development Research Centre (IDRC). The forum aims to strengthen the role of Thai higher education institutions in supporting refugees. The event attracted participants from countries including Hong Kong, New Zealand, Iraq, Indonesia, Australia, and Malaysia, and provided refugee students with the opportunity to share their experiences regarding the barriers posed by legal status. Discussions highlighted key recommendations for universities, including supporting refugees in accessing their basic rights, serving as safe spaces, raising awareness within the university community, expanding support to include internships, scholarships, and employment opportunities, and developing recruitment mechanisms for refugee students. These efforts are encouraged to be undertaken in collaboration with UNHCR and NGOs through MOUs to promote legal understanding and provide assistance channels when refugees face security challenges.



cr. Institute of Human Rights and Peace Studies



cr. Institute of Human Rights and Peace Studies

Inequality in Multilingualism, Multiculturalism, and Gender Dimensions

Mahidol University has strengthened its international collaboration in the social sciences through the “SSHA: Social Sciences and Humanities Alliance” network, signing a memorandum of understanding with the University of Hong Kong to facilitate systematic exchanges in academic knowledge, research, education, and student and staff mobility. This partnership aims to promote deeper collaboration to address inequality across multiple dimensions, including race, age, gender, economics, multiculturalism, and technology, with a focus ranging from local communities to the ASEAN region. It is expected to foster the development of innovations and prototypes that can be scaled to create a more equitable and sustainable global society and enhance the quality of life for people of all ages worldwide. As part of this initiative, Mahidol University organized the MU-SSHA Pitching Day for Cross-Disciplinary Research, providing a platform for researchers to present cross-disciplinary research projects that lead to tangible and high-quality research outcomes. Example projects include “Gender Equality and Health Impacts: Situations, Knowledge, Experiences, and Perceptions in Mahidol University” and “MU-CARE BEAR: An Ecosystem and Mental Health Assessment Program for an Aging Society.”



cr. Faculty of Liberal Arts



cr. Faculty of Liberal Arts

Reducing Health Inequalities

Aiming to reduce health inequalities across the lifespan through the integration of government databases, the Institute for Population and Social Research at Mahidol University, with support from the World Health Organization, has conducted a study using the Life Course Perspective approach. This study analyzed more than 15 government databases, including MICS, NHES, and HDC. The project identified 3 key social determinants of health: intrinsic capacity, functional ability, and supportive environments. It also proposed policy guidelines, including establishing health and social factor management for inequality reduction as a core government mission. The initiative is accompanied by the creation of a central agency responsible for systematically establishing guidelines for data access, linkage, and utilization, as well as the development of secure, non-invasive data analysis technologies to enhance evidence-based policy management.

11 SUSTAINABLE CITIES AND COMMUNITIES



350
Researchers



625
Research
output



87
Research
units

SDG 11 : SUSTAINABLE CITIES AND COMMUNITIES

Mahidol University supports area development to accommodate diversity, encourages the use of public transportation and sustainable commuting options, and collaborates with network partners to enhance the quality of life for residents in surrounding communities. This includes creating safe and accessible learning environments that foster lifelong learning, with spaces available both inside and outside the classroom across all Mahidol University campuses:



Co-working Space

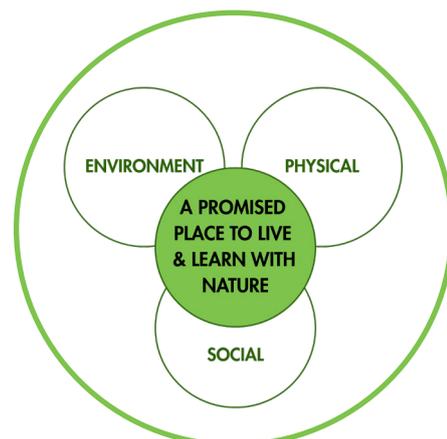
- Ma SHARES Co-working space @MU Dormitory 10
- MaSHARES Co-Working Space @ MB
- MaSHARES Co-Working Space @True LAB MLC
- MaSHAREs Co-working space @MUKA (Mahidol University Kanchanaburi Campus)
- MUNA-MaSHARE
- MUIC Co-working Space
- Innogineer Studio Co-working space at Faculty of Engineering
- Eun Ai Ruk Room (Dorm 11)
- Activity Halls A, H, I, and O (around the student dormitories)
- Co-Working Space "INT SPACE" @ SALAYA ONE
- Co-Working Space at Faculty of Public Health (Building 1)
- Co-Learning Space at College of Management (Mu Building)
- Princess Maha Chakri Sirindhorn Music Library, Library and Knowledge Center
- Co-MU Space a new learning area within the Library and Knowledge Center

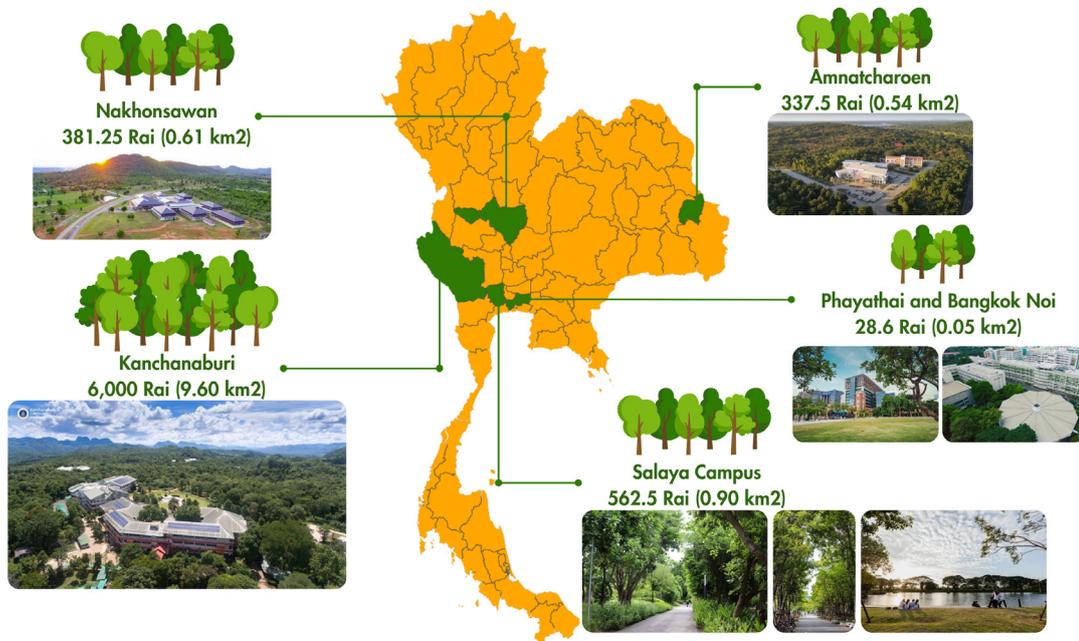


Green Area

Mahidol University promotes the concept of "A Promised Place to Live and Learn with Nature," aiming to create an environment that supports both living and learning by designing spaces that harmonize physical, social, and environmental conditions. This includes designated areas for environmental conservation and a continuous expansion of green spaces, such as tree planting in vacant areas, around buildings, and on balconies. These efforts help sequester carbon dioxide, reduce temperatures, purify the air, and enhance the overall beauty of the surroundings.

The University has a total green area of more than 7,300 rai, including 6,000 rai at the Kanchanaburi campus, which is a mixed deciduous forest; 381.25 rai at the Nakhon Sawan campus, a mixed deciduous forest on limestone mountains; 337.5 rai at the Amnat Charoen campus, a mixed deciduous forest combined with dry dipterocarp forest; 28.60 rai in the Phaya Thai area, including Bangkok Noi; and 562.5 rai in the Salaya area, consisting of flat green spaces such as the Sireeruckhachati Nature Learning Park. These areas also feature vertical gardens in common spaces and several classroom buildings designed to harmonize with the surroundings and incorporate various plant species. Together, these initiatives reflect the University's commitment to environmental conservation, enhancing quality of life, and fostering environmental awareness among the Mahidol community.





Sustainable Transportation and Public Transport Systems

Mahidol University is committed to developing its campus spaces to be pedestrian and bicycle friendly, guided by the principles of safety, tidiness, environmental sustainability, and community satisfaction. This initiative includes managing vehicle traffic around educational buildings to maintain safe and unobstructed walking and cycling areas. In addition, main roads in the Salaya area have been upgraded to facilitate safe travel and connect public spaces that serve as interaction hubs for the university community. Quality of life has been further enhanced through a clean, accessible, and safe public transportation system, including free electric trams covering key points, shuttle buses promoting shared travel, and a Jakka Center for bicycle repair services. These efforts reflect the University's vision of creating livable and sustainable cities and communities to support the long-term well-being of the Mahidol community.

- **Pedestrian and Bicycle Paths**

Mahidol University has designed and developed a pedestrian and bicycle path system based on the principles of Universal Design. This includes reducing traffic lanes on main roads and allocating a total of 51,133 square meters for pedestrian paths and 24,586 square meters for bicycle paths. The University has enhanced the landscape to provide shaded, safe, and nature-friendly routes. Plants are used to separate walkways from traffic lanes, and public spaces are systematically arranged with features such as benches, tram stops, and bicycle parking to accommodate a variety of activities. The covered walkways provide comfort in all weather conditions around study areas. All routes are carefully designed with attention to width, slope, smooth and safe surfaces, resting areas, and navigation systems for the visually impaired. These measures ensure equality, accessibility, and an improved quality of life for the university community.

- **Bicycles**

The University promotes bicycle use as a primary mode of transportation in the Salaya area under the "Bicycle Way, Mahidol Way" policy, aiming to create a healthy environment, reduce carbon emissions, and foster social connections. In fiscal year 2024, the University provided 490 free public bicycles, which were borrowed a total of 36,417 times. Meanwhile, students and staff have shown strong engagement with cycling, owning 5,936 personal bicycles, reflecting a culture of sustainable travel.

- **Electric Trams**

The University provides 16 electric trams, each with 28 seats, operating free of charge on 4 main routes daily within the Salaya area. This service offers a total of 194 trips per day, promoting clean energy, facilitating commuting, and improving accessibility for staff, students, and the public.

- **Public Buses**

The University provides convenient, economical, and environmentally friendly public transportation. 17 electric buses (EV buses) and 6 Salaya Link buses operate a total of 80 trips per weekday, covering routes between university campuses and surrounding areas, including Phaya Thai, Bangkok Noi, Nakhon Pathom, Bang Khae, Bang Bua Thong, and Nonthaburi. Connections to public transport, such as the Bang Wa BTS station, ensure comprehensive access to study and work areas. This system helps reduce personal vehicle use, fuel consumption, and air pollution, while promoting efficient and accessible shared commuting for all.





SDG 12 : RESPONSIBLE CONSUMPTION AND PRODUCTION

As Mahidol University carries the determination of being the 'Wisdom of the Land,' it places strong emphasis on environmental management, particularly on the challenge of waste management, a key factor in maintaining a healthy environment. The University continues to serve as a model and leader in addressing this issue. Accordingly, Mahidol University has established waste management policies and measures covering 5 main types of waste: general waste, organic waste, recyclable waste, hazardous waste, and infectious waste. These measures involve systematic waste management across all areas of the University, including both central and departmental units, with close monitoring of waste volumes to ensure an efficient system and a healthy environment, in alignment with the Sustainable Development Goals (SDGs).

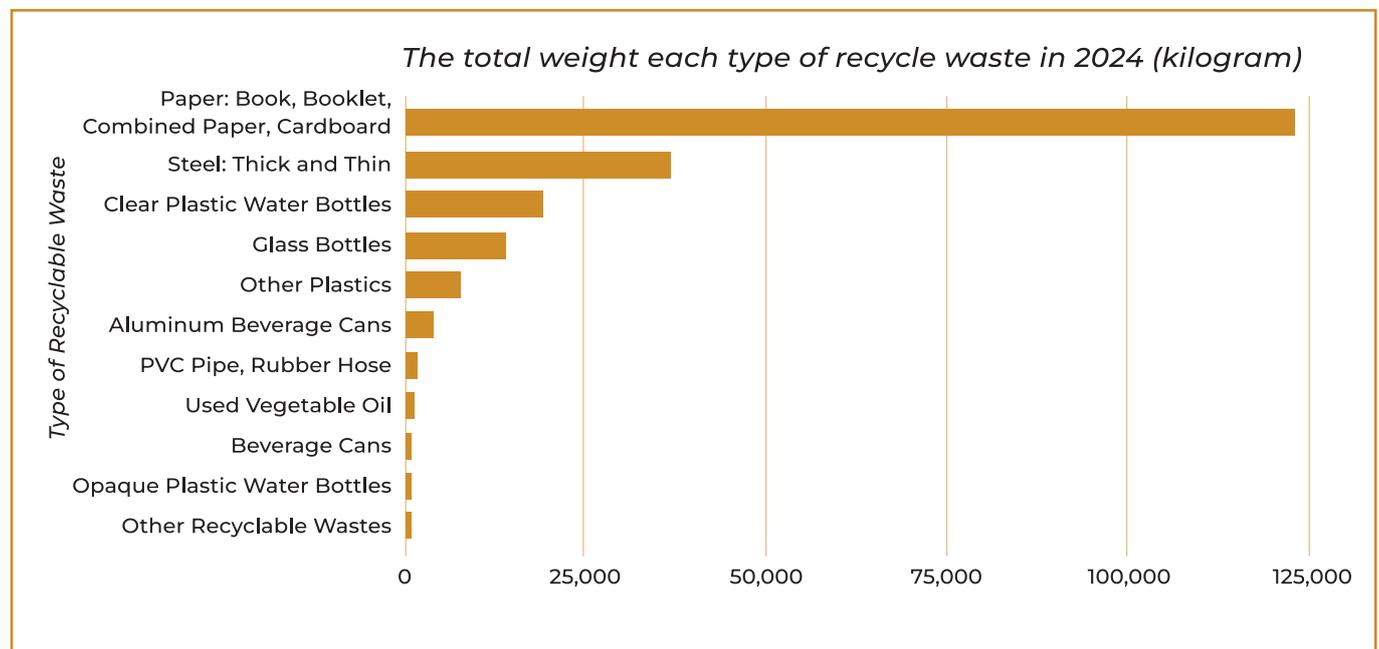
Type of Waste	2024	
	Ton	Percentage
General Waste	9,461.27	64.99
Organic Waste	941.09	6.46
Recyclable Waste	1,166.39	8.01
Infectious Waste	2,935.86	20.17
Hazardous Waste	53.37	0.37
Total	14,557.98	100.00

Note: Infectious waste was included 5 hospitals.

Reducing Landfill Waste through Effective Management

Mahidol University is committed to efficient waste management to minimize the amount of waste sent to landfills, in line with its policy of promoting green universities and sustainable development. Key operations include:

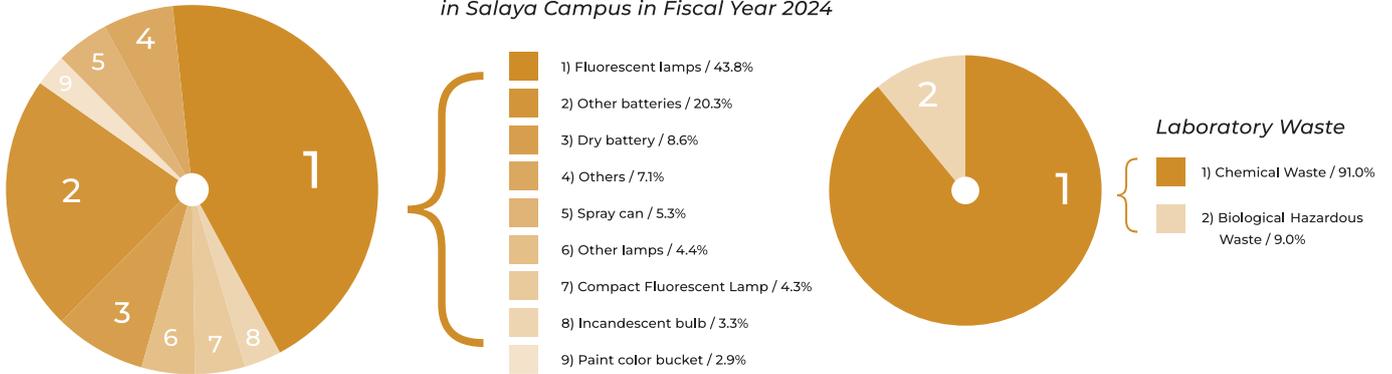
- **Orphaned Waste to Energy Project:** The University has been running the "Orphaned Waste" (Refuse-Derived Fuel; RDF) initiative for the second consecutive year, in collaboration with N15 Technology to convert waste into energy. In fiscal year 2024, a total of 5,949 kilograms of orphaned waste was incinerated for energy, marking another important step toward sustainable and environmentally friendly waste management.
- **Recycle Waste Bank Operation:** The University has actively promoted the separation of recyclable waste through the Recycle Waste Bank Project, which has been in operation since 2009. Recyclable waste is sorted into 22 categories. In 2024, a total of 210,625 kilograms of recyclable waste was collected, with recyclable paper waste accounting for the largest portion.



Effective Management of Hazardous Waste

The University also prioritizes hazardous waste management. Household hazardous waste is classified into 13 categories and collected from 29 units across the Salaya campus. Laboratory hazardous waste is further divided into 2 categories: chemical and biological waste. Both household and laboratory hazardous waste are collected and disposed of properly to ensure the safety and health of the environment and the university community.

Household Hazardous Waste Generated in Salaya Campus in Fiscal Year 2024



Zero Waste Awareness Day

The Division of Physical systems and Environment of Mahidol University organized the Zero Waste Awareness Day to raise awareness and understanding of proper waste management through a Zero Waste exhibition, providing participants with interactive, hands-on activities for waste sorting and separation. These guidelines serve as practical examples that can be effectively adapted by each department within the University. However, Zero Waste Awareness Day represents just the beginning of Mahidol University’s journey toward a sustainable Zero Waste goal. The University remains committed to implementing a range of policies and activities to promote awareness and encourage environmental cooperation, all supporting the University’s long-term commitment to sustainable development.





<p>227 Researchers</p>	<p>428 Research output</p>	<p>51 Research units</p>
----------------------------	--------------------------------	------------------------------

SDG 13 : CLIMATE ACTION

The climate change crisis continues to intensify, directly affecting the environment and the well-being of living organisms within ecosystems. As the “Wisdom of the Land,” Mahidol University recognizes the significance of the current environmental challenges. Leveraging its role as a source of knowledgeable and skilled personnel and as a center for research across various fields, the University has actively engaged in addressing this crisis and established the Net Zero Emission Policy 2021 as an operational framework. The initiative focuses on promoting activities to reduce greenhouse gas emissions, enhance greenhouse gas absorption, and implement measures to strengthen adaptive capacity to climate change. According to environmental performance data in 2024, Mahidol University released 194,679.39 tons of carbon dioxide equivalent (ton CO₂ eq) of greenhouse gases, as shown in the table below.

Mahidol University Greenhouse Gas Inventory Data, 2024

Scope	Source of GHGs Emission	GHGs Emission (tonCO ₂ e/eq)	Percentage
Scope 1 Direct Emissions	Stationary combustion	10,122.60	5.20
	Mobile combustion		
	Fugitive emission		
Scope 2 Energy Indirect Emissions	Purchased electricity	179,588.18	92.25
Scope 3 Other Indirect Emissions	Purchased water	4,347.50	2.23
	Purchased paper	621.11	0.32

Carbon Footprint for Organization

Mahidol University launched the Carbon Footprint Project in 2017 and has continued to operate with a commitment to equipping university staff with knowledge and skills in greenhouse gas inventory, enabling them to guide and implement more environmentally friendly operations. In 2024, 2 university departments, the Faculty of Social Sciences and Humanities and the College of Sports Science and Technology, received certification for corporate carbon footprint label registration. This certification represents an important step in demonstrating Mahidol University's dedication to being an environmentally and socially responsible institution.



Project to Make Agricultural Practices in the Bueng Boraphet Wetland Area Environmentally Friendly

Bueng Boraphet is the largest freshwater marsh in Thailand and is recognized as a wetland of international importance. It is rich in biodiversity, including aquatic plants, aquatic animals, and wildlife, particularly resident and migratory birds. However, most surrounding communities rely on dry-season rice farming, which covers more than 79,858 rai. This type of farming requires large amounts of water, leading to rapid water depletion in Bueng Boraphet and severely impacting the ecosystem. Climate change has further worsened the situation. In the summer of 2024, temperatures reached as high as 43 degrees Celsius, requiring farmers to pump even more water to compensate for evaporation. Continuous water-logged dry-season rice cultivation also produces methane, a potent greenhouse gas, contributing to global warming.



To address this issue, the Nakhon Sawan Campus of Mahidol University, in collaboration with the local community and primarily supported by the Rockefeller Foundation, has been working to mitigate the impacts of climate change in 2 main areas:

- **Alternating Wet and Dry Rice Farming:** The project has provided farmers with knowledge, inspiration, and practical learning opportunities through a 100-rai pilot area in Wang Mahakon and Thap Krit sub-districts. This approach has significantly reduced water usage, lowered greenhouse gas emissions compared to conventional farming, and increased farmers' income by reducing costs for fertilizers, chemicals, and water pumping.
- **Making Soil Improvement Materials from Aquatic Weeds in Bueng Boraphet:** The project has encouraged communities in Phra Non Sub-district to make use of aquatic weeds from Bueng Boraphet by processing them into fertilizers that are both income-generating and environmentally friendly.

The cooperation of all parties has strengthened the community, leading to the formation of community enterprise groups in 2 areas: the Bueng Boraphet Low Carbon Community Enterprise Group in Phra Non Sub-district and the Bueng Boraphet Low Carbon Community Enterprise Group in Wang Mahakon Sub-district. In addition, a Low Carbon Bueng Boraphet Community Learning Center has been established within the Bueng Boraphet Wildlife Sanctuary to serve as a learning hub for both local residents and interested visitors. These initiatives align with COP28 and the Bueng Boraphet Sandbox policies, which aim to achieve Net Zero by 2030.





SDG 14 : LIFE BELOW WATER

Mahidol University places significant importance on maintaining ecosystem balance, particularly in aquatic environments both within the campus and in surrounding areas, as these ecosystems are interconnected and influence a wide variety of living organisms. The University has supported several conservation initiatives, including the following:

Promoting Research in Conservation Biology

Fish are not only an important source of protein for humans but also an indicator of the health of freshwater ecosystems. Mahidol University researchers studied the “red-colored water season” in the Beeklee Stream in Sangkhlaburi District, Kanchanaburi Province, during which various freshwater fish migrate upstream from Vajiralongkorn Dam to lay eggs over a 2-month period. This red discoloration occurs when heavy rains wash minerals from the soil into the river, turning the water red, an important natural signal for fish migration. This research has produced outstanding results, including:

- The discovery of 15 new fish species in the Mae Klong River Basin, significantly expanding knowledge of biodiversity.
- The creation of an innovative platform to assess and analyze biodiversity and related factors, providing a powerful tool to predict the extinction risk of Thai freshwater fish.

This research highlights the importance of conservation biology in preserving native Thai fish species for future generations. Mahidol University has also applied aquaculture principles to produce offspring and release them back into the wild, thereby maintaining and preserving the original genetic traits of local broodstock in the Mae Klong River Basin for long-term sustainability.

Conservation of the Original Natural Wetlands at Mahidol University, Salaya

Mahidol University, Salaya Campus places great emphasis on conserving and restoring its original natural wetlands, an essential part of the ecosystem and central to promoting a green campus. The University has achieved its sustainable development goals by conserving 2 wetlands: one in the northern part of the Institute for Population and Social Research and the other in the southern part of the Sireeruckhachati Nature Learning Park. These wetlands not only serve as water reservoirs and natural water treatment systems but also provide habitats for a wide variety of aquatic plants and animals, helping to preserve biodiversity. Conserving these areas thus contributes to maintaining balance in the overall ecosystem of the University and its surrounding areas.



Participation in Water Management in the Bueng Boraphet Wetland Area

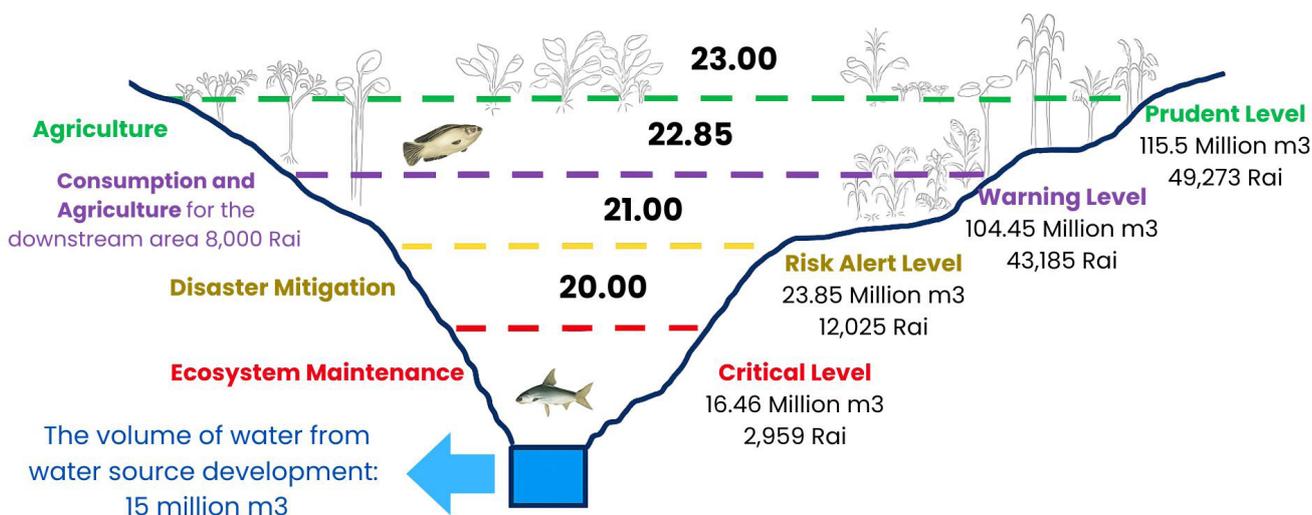
Bueng Boraphet, the largest freshwater lake in Thailand and a wetland of international importance, requires complex water management that balances community use with ecological conservation through participation from all sectors. The Research and Academic Services Center, Nakhon Sawan Campus, Mahidol University, has developed a key strategy to serve as a reliable support for Bueng Boraphet, emphasizing strong participation from local communities. This is implemented through the creation of a participatory water management system for the Bueng Boraphet wetlands, the development of the Bueng Boraphet Information Center, and the production of water management learning materials to support ongoing activities, including:



- Establishment of an organization by water user communities around Bueng Boraphet, covering 9 sub-districts.
- Registration of 3,723 water usage requests, both inside and outside the Bueng Boraphet area, covering 5,011 plots, totaling 69,871 rai.
- Development of local livelihoods by adopting environmentally friendly agricultural practices, including alternating wet and dry rice farming and producing fertilizer from aquatic weeds.
- Implementation of the Bueng Boraphet - Water Image Downloader system, enabling full use of satellite imagery for the Bueng Boraphet wetlands.

Following these efforts, the Bueng Boraphet Management Committee certified 4 levels of water management criteria to serve as guidelines for participatory decision-making. Moreover, at the Meeting No. 1/2024, the Nakhon Sawan Provincial Bueng Boraphet Management Committee endorsed the “Bueng Boraphet Wetland Water Management System” to enable all sectors to collaborate formally and sustainably.

Bueng Boraphet 4-Level Water Management Criteria



Over the course of its implementation, water management in the Bueng Boraphet wetlands—both in developing the system and driving its operations—has represented a democratic innovation, allowing all sectors to participate in every stage, from cooperation and exchange of opinions to collective work and learning, and ultimately advancing smoothly to the policy level through various legal mechanisms. For these achievements, the “Bueng Boraphet Wetland Water Management Project” received an “Excellent” award in the 2024 Democracy Innovation Competition, Community and Organization category. This approach, widely recognized and accepted by all sectors, paves the way for sustainable development and can serve as a model for other areas. Mahidol University’s commitment to maintaining the balance of aquatic ecosystems reflects its vision to be an institution that not only develops high quality personnel but also serves as a model for environmentally sustainable practices.

This commitment contributes to a better quality of life for both the Mahidol community and surrounding areas, supports the sustainable use of resources, and reinforces the University’s dedication to society and the environment.



15 LIFE ON LAND



268
Researchers



496
Research
output



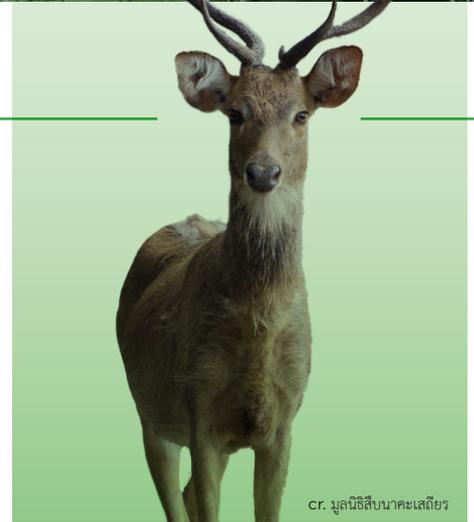
61
Research
units

SDG 15 : LIFE ON LAND

Conservation of Eld's Deer

The Faculty of Environmental and Resource Studies and the Department of National Parks, Wildlife and Plant Conservation have been studying the ecology of reintroduced Eld's deer in Salak Phra Wildlife Sanctuary, Kanchanaburi Province, for 10 years. The program has been quite successful, with an estimated 100+ Eld's deer born and currently living in the sanctuary. These results warrant further study into the factors contributing to the more successful emergence, distribution, and growth of Eld's deer compared to other areas in Thailand, to serve as a model for the Department of National Parks, Wildlife and Plant Conservation and other organizations. The study began in 2022 and continues today. A preliminary survey of the area was conducted, along with the installation of wildlife camera traps in 8 directions at 33 locations and analyzing the data using ArcGIS. Environmental factors were also studied to further observe the behavior of Eld's deer and other wildlife.

The higher number of Eld's deer in Salak Phra Wildlife Sanctuary compared to Khao Ang Rue, Huai Kha Khaeng, and Phu Khieo Wildlife Sanctuaries is due to the application of lessons learned from other areas in management planning before and during the release process, which ensured better preparation for reintroduction. Currently, as the Salak Phra Wildlife Sanctuary restores populations of key prey species such as banteng, Eld's deer, and gazelle, predator activity in the area has increased, which is a major factor influencing the current distribution of Eld's deer within the sanctuary.



cr. มูลนิธิสืบนาคะเสถียร



Development of the Khao Noi and Pa Phon Ecosystem, Satun Geopark



World Organisation for Animal Health

Satun Geopark has been recognized by UNESCO as a Global Geopark since 2018 and has also received Green Card status. Mahidol University has collaborated with the Palm Phatthana Sub-district Administrative Organization to study and propose an ecological mapping of the Khao Noi and Pa Phon areas, along with guidelines for developing a fossil site learning trail. This initiative serves as a tool for site management and supports the operations of Satun Geopark in the areas of communication, education, and geotourism.

Area	Reserved Area (sq.m.)	Conservation Area (sq.m.)	Development Area (sq.m.)
Khao Noi	6,511.85	72,834.55	1,440.07
Pa Phon	6,339.25	43,769.47	29,532.45



The ecological map of Khao Noi and Pa Phon consists of 3 zones: the core zone, covering the fossil site at Khao Sarai; the buffer zone, including other areas adjacent to the protected zone; and the development zone, which encompasses the nature study trail, with additional facilities. The land use management plan support for Satun Geopark should include the following actions:

- 1) Upgrade the standard of the Geopark Learning Center, including area development and management, to meet established standards.
- 2) Promote geo-tourism services and developing the local community economy to meet international standards.
- 3) Improve infrastructure and facilities.
- 4) Create awareness of nature trails and facilities, which have been designed with input from stakeholders, prioritizing the conservation and appeal of fossil sites while minimizing disturbance to the natural environment.

The design for Pa Phon, an area with limestone and fossil sites, should emphasize nature walks and fossil learning across all 8 locations. It should focus on system improvements and management, including service points and routes, such as parking areas, walkways, stairs, signage, shops, landscaping, and ways to enhance points of interest. This also includes proposing suitable activities to be added to the area, with an emphasis on involving the community and residents in creating learning activities, as follows:

<p>LOCAL GUIDE</p> <p>Encourage students or interested villagers to serve as tour guides.</p>	<p>LOCAL FOOD</p> <p>Establish community-run restaurants to serve visitors.</p>	<p>LOCAL CRAFT</p> <p>Support villagers in creating handicrafts to showcase, teach, and sell to tourists.</p>	<p>LOCAL PLANTS</p> <p>Promote the use of local plants and share knowledge about their benefits.</p>	<p>LOCAL NATURE</p> <p>Preserve and highlight the area's original natural features.</p>
--	--	--	---	--

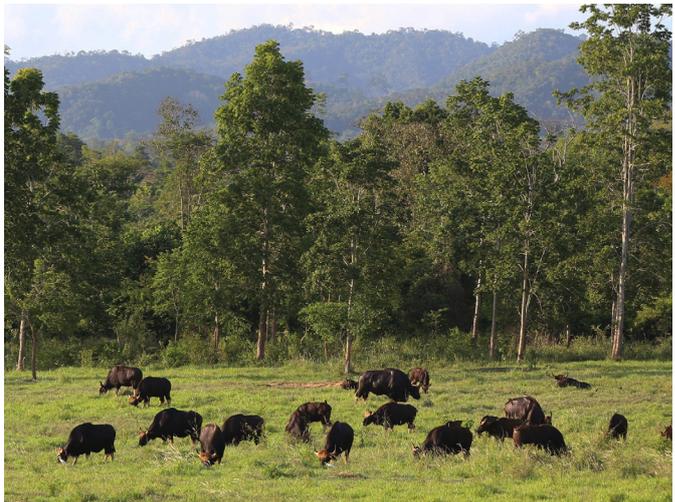
A guidebook for the nature trails at Khao Noi and Pa Phon will present stories about the origins of fossils in Satun, the significance of geological time periods, algal rocks, and the various types of fossils found at Khao Noi. The creation of the ecological map for Khao Noi and Pa Phon serves to zone the areas for appropriate use while ensuring the conservation of fossils, ensuring their preservation within Satun Geopark.



WOAH Collaborating Centre for Wildlife Health Surveillance and Epidemiology

The Monitoring and Surveillance Center for Zoonotic Diseases in Wildlife, Exotic, and Migratory Animals (MoZWE) at the Faculty of Veterinary Science, Mahidol University is responsible for monitoring and investigating outbreaks of emerging infectious diseases and epidemics in wildlife, exotic pets, and migratory species. It collaborates with the National Wildlife Health Center (Thailand-NWHC) at the Faculty of Veterinary Science, Mahidol University, which serves as a central coordinating body among government, private, and academic agencies. Together, they monitor, investigate, and issue alerts regarding threats to wildlife and the environment, including infectious and emerging wildlife diseases. The center also works to strengthen the capacity of various agencies in wildlife health management, ultimately supporting healthier communities and ecosystems. Currently, the World Organization for Animal Health (WOAH) has recognized MoZWE as a WOA Collaborating Centre for Wildlife Health Surveillance and Epidemiology. This designation supports scientific data sharing and promotes international cooperation in wildlife disease surveillance, enhancing the effectiveness of disease monitoring in Thailand and across WOAH member countries.

In 2024, the WOAH Twinning Project Future Directions and Sustainability Workshop was held in collaboration with the U.S. Geological Survey. The workshop aimed to present the project's outcomes, gather feedback from networks across all sectors, and jointly develop strategies for future implementation. Participants included the Department of National Parks, Wildlife and Plant Conservation, the Department of Marine and Coastal Resources, the Department of Livestock Development, and faculties of veterinary medicine from various universities, including Mahanakorn University of Technology, Kasetsart University, Khon Kaen University, Rajamangala University of Technology Srivijaya, Western University, Prince of Songkla University, and Rajamangala University of Technology Tawan-ok. The event took place at the Faculty of Veterinary Science, Mahidol University.



<p>310 Researchers</p>	<p>565 Research output</p>	<p>96 Research units</p>
-----------------------------------	---------------------------------------	-------------------------------------

SDG 16 : PEACE, JUSTICE AND STRONG INSTITUTIONS

Governance

Mahidol University has adopted a policy to develop an efficient organizational management system in line with the principles of good governance. The system promotes honesty and integrity in work practices, transparency, accountability, anti-corruption, and a culture of ethical organizational values, all aimed at ensuring sustainable management. In 2024, the University undertook the following actions:

1. Upgrade ITA of Mahidol University

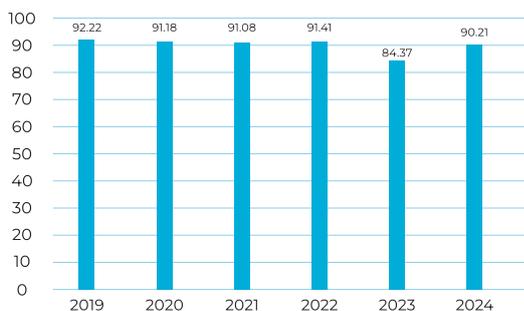
- Study visit to Kasetsart University on the Integrity and Transparency Assessment (ITA) applied in government agency operations.
- “One Right, One Voice” Project: Students participate in developing ethical practices and transparency in the university’s operations.

2. Extend ITA to the Departments

- Meeting to clarify guidelines for assessing integrity and transparency in Mahidol University’s operations.
- Workshop to enhance integrity and transparency assessment scores.
- Presentation of MU ITA Awards to recognize 5 departments/faculties achieving “Good” results and one faculty achieving “Outstanding Development” in the integrity and transparency assessment.



The result of integrity and transparency assessment (ITA) in 2019-2024



3. Strengthen Anti-Corruption Values

- Issued a statement on behalf of Mahidol University expressing its commitment to combating corruption on the occasion of International Anti-Corruption Day.

4. Promote Integrity and Ethic

- Delivered a lecture on “Ethics for Executives” at the Mahidol University Board meeting.
- Held a discussion and follow-up session on the implementation of the Anti-Corruption Education Curriculum in educational institutions.
- Delivered a lecture on “Conflicts between Personal and Public Interests” for Mahidol University’s executives and departmental representatives.

5. Propel Driving “NO GIFT POLICY”

- Announced the No Gift Policy for Fiscal Year 2024.
- Disseminated the policy during Mahidol University Board meetings.



6. Continuous Review and Development

- Workshop on monitoring and promoting Integrity and Transparency in line with Mahidol University’s good governance strategy.
- Knowledge-sharing discussion on Integrity and Transparency practices from organizations demonstrating good practices.
- Brainstorming session to develop operational guidelines for promoting Integrity and Transparency.



Interfaith Buddy

The "Interfaith Buddy: Leaders and the Weaving of Peace and Harmony in Thai Society" Project at Mahidol University has launched a "Health Exchange" initiative as a starting point to build trust and foster reconciliation in the conflict-affected 3 southern border provinces, with the ultimate aim of promoting peace. The project was carried out through 40 small-scale dialogues across 6 southern border provinces, with over 170 participants involved. Using interviews and dialogue techniques, it aimed to build understanding, strengthen relationships, and enhance trust. The initiative led to the launch of interfaith activities, public forums to foster empathy, and exchanges of experiences of suffering and loss, particularly during the COVID-19 crisis. This period became an opportunity to mobilize cooperation among Interfaith Buddies. Results and policy proposals from the project were implemented in 4 pilot communities (Chana, Panare, Muang Yala, and Yi-ngo), successfully creating "Interfaith Buddy" leaders and expanding the network. Each community was able to map its socio-cultural treasures, uncover cultural heritage, and document stories of close friendships, presented through exhibitions and various media. The project has effectively translated policies into tangible peacebuilding and reconciliation efforts, leveraging social, cultural, and environmental capital as key resources.



Policy proposals include

1. Creating safe and weapon-free spaces, where the state and opposing groups reduce violence and build trust in public areas and places of worship.
2. Expanding public spaces to foster a pluralistic society by providing safe central areas for restoring relationships and conducting collaborative activities without state interference.
3. Decentralizing power to enable communities to guide peaceful and sustainable development, with the government supporting knowledge and resources.
4. Leveraging community wisdom as Soft Power by funding communities to develop their potential from local knowledge and resources.
5. Enhancing communication to strengthen pluralistic cultural identity by sharing stories of peace and coexistence with pride.



From Heart to Heart

The Contemplative Education Center at Mahidol University has had the opportunity to foster profound spiritual well-being to female inmates at Khon Kaen Central Prison through the project "From Heart to Heart: Value, Happiness, and True Inner Strength for Life Behind the Walls." This initiative applies contemplative learning processes to foster deep spiritual wellness among inmates and has been continuously implemented since 2014 with a variety of activities. In 2018, the program was expanded to male inmates and continues to this day, helping participants cope with external pressures both during incarceration and in preparation for reintegration into society. The program emphasizes cultivating love and compassion, recognizing human dignity and potential, and nurturing happiness and constructive inner strength. Given its impact, the contemplative learning approach used in the From Heart to Heart project has become an important foundation for developing social innovation aimed at policy-level initiatives for working with prisoners and ex-prisoners. This has led to the creation of curricula and learning processes designed to enhance prisoners' intellectual and spiritual well-being within correctional facilities. Today, From Heart to Heart has been formalized as a social innovation, with its counseling curriculum and "From Heart to Heart" Seedling Cards officially copyrighted.



17 PARTNERSHIPS FOR THE GOALS



 1,860 Researchers	 3,354 Research output	 185 Research units
---	--	---

SDG 17 : PARTNERSHIPS FOR THE GOALS

MoU / MoA

Mahidol University has signed numerous Memoranda of Understanding (MOUs) to facilitate teaching, research, technology transfer, academic services, cultural and artistic exchange, and other academic activities with both bilateral and multilateral educational institutions, agencies, and international organizations. These MOUs are currently being implemented with the active collaboration of various faculties, departments, and research centers. In addition, Mahidol University continues to pursue academic excellence through partnerships with both the public and private sectors. To date, the University has entered into a total of 498 MOUs.

Number of MoU/MoA Mahidol University with partners between 2022-2024

Partner	Number of MoU/MoA		
	2022	2023	2024
International Institute	29	67	66
NGOs	-	-	2
Private sector	10	10	8
Public Sector	26	11	19

Note: International Institute is international academic institutes, public and private international organization

NGOs is non-governmental organizations

Private sector is private companies, private universities, and private schools

Public Sector is government units, public universities, and public schools



ASEAN Cooperation in Public Health & Annual Assembly of China

Mahidol University, in collaboration with Peking University Health Science Center, People's Republic of China, co-hosted the 2nd Forum on China-ASEAN Cooperation in Public Health and the Annual Assembly of the China-ASEAN University Consortium on Medicine and Health under the theme "Innovations in Development Cooperation for Medical Devices and Technology, Cooperation and Development of China-ASEAN University Consortium on Medicine and Health" on 26-28 June 2024 in Beijing, People's Republic of China. The forum brought together representatives from educational institutions, international organizations, medical and public health agencies, and other global stakeholders. It served as a platform for exchanging knowledge in medicine and public health, while fostering collaboration in developing innovations, technologies, and medical devices among 22 higher education institutions from ASEAN countries and 21 universities in China under the China-ASEAN University Consortium on Medicine and Health.



Mahidol University SDGs Showcase

Mahidol University SDGs Showcase 2024, held on June 25, 2024, featured a special lecture titled “Choosing the Future We Want: Mahidol University’s Role and Contribution to the SDGs”, poster presentations, exhibition booths, and an award ceremony recognizing 6 projects that support the implementation of sustainable development policy (SDGs). Awards presented included 5 Innovation for Campus Sustainability 2024 awards, 16 scholarships for outstanding theses advancing Mahidol University’s SDG policy, 20 scholarships for theses contributing to SDG policy, 5 awards for sustainable development projects by Mahidol University personnel, 3 awards for the Sustainable Development Goals + Mobility Mahidol University Projects (SDGs + Mobility MaPs), and 5 awards for the “Grand Pitching Challenge” Mahidol SDGs Impact Challenge 2024. The event aimed to raise awareness among students and staff, encouraging active participation in sustainable development and enabling the transfer of knowledge to communities and society, while also creating opportunities to strengthen collaboration with external organizations to further enhance the University’s contributions to society.



Policy Advocacy 2024

The Social Mission Policy was established to promote leadership in health policy at both the national and international levels by creating a system to drive and support Policy Advocacy. This approach maximizes the impact of Mahidol University’s research across multiple fields and advances its application into national policy development. These efforts provide social direction and contribute to achieving the Sustainable Development Goals (SDGs). Under this initiative, funding has been awarded to 3 research projects under the theme “Sustainable Development Goals and Mental Health Crisis” as follows:

- Project 1: Capacity building for public health volunteers to promote early childhood well-being in every household
- Project 2: Educational and quality-of-life collaboration to support children and families with special needs to support community sustainability
- Project 3: Participatory Net Zero Greenhouse Gas Emission Policy initiative: To develop low-carbon community models with agricultural and culinary tourism



Sawasdee Thailand Summer Program

Mahidol University has promoted knowledge exchange on Thailand's best practices and provided opportunities to learn about various dimensions of Thai society and culture through cultural exchange activities. These include learning the Thai language, Thai cooking, and participating in ecotourism programs. The initiative aims to build understanding, foster mutual learning, and support progress toward the Sustainable Development Goals. Over the past 5 years, the program has engaged 450 participants. In 2024, Batch A took place from June 18 to July 1, and Batch B from August 27 to September 9.



SDGs + Mobility MaPs

Mahidol University has implemented the Sustainable Development Goals + Mobility Mahidol University Projects (SDGs + Mobility MaPs) since 2023 to promote cross-cultural exchange and engage students in advancing ideas for sustainable change in line with the Sustainable Development Goals (SDGs). The initiative has been carried out continuously, and in 2024 it took place from March to December. Participating institutions included the National University of Singapore (Singapore), Universitas Gadjah Mada (UGM) and Universiti Teknologi MARA (UiTM) (Malaysia), along with 7 Thai universities: Chulalongkorn University, Kasetsart University, Chiang Mai University, King Mongkut's University of Technology Thonburi, Thammasat University, Prince of Songkla University, and King Mongkut's Institute of Technology Ladkrabang. A total of 148 students took part in the program.





PUBLICATION AND DISTRIBUTION

Division of Physical Systems and Environment
Office of the President
Mahidol University



ADVISOR

Professor Sompop Prathanturarug, Ph.D.
(Vice President for Strategic Planning, Quality Development and Social Engagement, Mahidol University)
Assistant Professor Ittichote Chuckpaiwong, Ph.D.
(Vice President for Infrastructure and Environment, Mahidol University)



EDITOR

Sasivimon Pungpermtrakul
Rungtiwa Buadee
Malulee Leamlaem
Waratip Wattanawinitchai
Sansanee Sirilak



Sustainable Development Office

Division of Physical systems and Environment, Mahidol University
999 Phuttamonthon 4 Road, Salaya, Nakhon Pathom
73170 Thailand
Phone: 0-2441-4400 Ext.1120-1125
Fax: 0-2441-9720



Credit : ภาพของ เสฎฐวุฒิ อภิรักษ์สัตยากุลและมัชฌิมา นาคสวาทดี