KING MONGKUT'S UNIVERSITY OF TECHNOLOGY NORTH BANGKOK

SUSTAINBILITY REPORT

2024

Invention to Innovation for a Sustainability World

TABLE OF CONTENTS

TABLE OF CONTENTS

MESSAGE FROM THE KMUTNB PRESIDENT

At King Mongkut's University of Technology North Bangkok (KMUTNB), we firmly believe that our responsibility goes beyond achieving academic excellence and includes caring for and protecting our planet. Sustainability is deeply rooted in our core values and serves as a guiding principle in every actions and decisions we take. I would like to take this opportunity to reaffirm KMUTNB's strong commitment to promoting sustainability in all areas of our mission.

We take great pride in the progress on our sustainability journey. Our continuous efforts have led KMUTNB to be recognized in the Times Higher Education Impact Rankings since 2020. Sustainability, for us, is not just an idea but a defining value that reflects our dedication to both our local community and the global society. We are fully aware that the choices we make today will have a lasting influence on the world that future generations will inherit. With this understanding, we continue to move forward with determination toward a more sustainable and responsible future.

In the coming years, KMUTNB will further strengthen its sustainability initiatives. Our focus will be on key areas including Carbon Neutrality, Education and Awareness, Research and Innovation, Community Engagement, and Diversity and Inclusion. I warmly invite everyone to join us in this important mission. Let us remember that sustainability is not an option but a necessity. The decisions we make today will define the world of tomorrow. As members of the KMUTNB community together with our partners, let us lead as innovators, changemakers, and advocates for sustainability. Together, through our shared dedication, we can create a cleaner, greener, and more sustainable future for all.

Prof.Dr.Thanin Silpcharu
KMUTNB President

ABOUT KMUTNB

Since its establishment in 1959, King Mongkut's University of Technology North Bangkok has grown from a small and single campus to a leading national university of technology, with more than 30,000 students across three campuses located in Bangkok, Prachinburi and Rayong province. Founded by the collaboration between the German Government and the Royal Thai Government, KMUTNB has adopted the German model of education, which emphasizes on hands-on and practical experience. KMUTNB offers 185 Thai and English programs in certificate, undergraduate, graduate and doctorate levels. More than six decades, the university has succeeded to develop career-ready and highly skilled graduates who are both knowledgeable, experienced and well prepared for rapidly changing workforce needs. We endeavor to foster excellent teaching and researches that address the community's significant challenges and tackle pressing issues in society. Integrating into our communities and industries, we work with them to enhances the quality of life and build better society.

KMUTNB POLICY ON SUSTAINABILITY

The nature and environment play an important part of learning process; whereas "universities" become one of the most essential sources of learning opportunities. The natural surroundings and environment play a significant role in the learning process, providing ample resources to create a nourishing educational setting. Universities are recognized for their pivotal role in nurturing graduates with the necessary knowledge and skills. Clearly, fostering a conducive and constructive learning atmosphere is essential for the entire educational journey. Being aware of environmental sustainability, conservation and sustainable use of natural resources, KMUTNB has constantly promoted education for sustainable development through research opportunities, sustainability-related courses, curriculums and activities. The practices aim to raise environmental awareness in staff and students, thus instilling personal responsibility of an individual in conservation and preservation of natural resources.

Since 2011 KMUTNB has been committed to transforming KMUTNB into a green and sustainable campus. The concept leads to KMUTNB's integrated sustainability strategy, which lays emphasis on the 4Es (Environment, Economic, Equity and Education aspects). KMUTNB is a member of Sustainable University Network of Thailand, which supports the UN's Sustainable Development Goals. In collaboration with public-private community partnership including Bangsue District Office, Bangkok, Thailand and local community groups e.g. Nonthaburi, Prachinburi and Rayong, KMUTNB has organized various green activities for the promotion of local and global environmental conservation. KMUTNB received funding assistance from the Department of Alternative Energy Development and Efficiency, Ministry of Energy. The main goal of the support is to reform equipment for effective management of campus energy consumption and energy saving. In addition, KMUTNB Rayong has issued a master plan that incorporate sustainability of the environment and to render KMUTNB an outstanding, green institution. As a result, agencies showed interest and paid a visit to KMUTNB Rayong Campus to examine its operations of environmental sustainability. Later on, KMUTNB Rayong was assigned by the Sustainable University Network of Thailand to host the 2018 meeting of the roaming working group.

KMUTNB POLICY ON SUSTAINABILITY

KMUTNB has aimed to engage in "Sustainable Development Goal (SDG)" due to our awareness as global citizen to the global warming situation. This target co-aligns with the National policy of Thailand to the international actions leading by United Nations during 26th Conference of the Parties (COP26) meeting to achieve the 17 SDGs. To become a driving player and motivator to society to achieve the sustainable goal, KMUTNB set up for vision, mission, policy and strategy for SDGs in 2019 to integrate our activities in academic, research, academic service and community engagement.

KMUTNB SUSTAINABLE VISION:

KMUTNB is a leading university in invention and innovation for sustainable society

KMUTNB SUSTAINABLE MISSION:

- Raise awareness and cultivating knowledge about SDG to university staffs and students, and extending to communities in local, regional, national and international level
- Integrate academic, research and academic service activities to sustainable innovation
- Utilize university and society resources in effective manner to minimize the negative impact to environment and community

KMUTNB POLICY ON SUSTAINABILITY

KMUTNB SUSTAINABLE POLICY:

1. Corporate Governance and Social Responsibility

KMUTNB upholds the highest standards of integrity, transparency, and accountability in all areas of its operation. We are committed to ethical conduct, responsible financial management, and the promotion of diversity and inclusion within the workplace. The University actively engages with local communities and ensures that its suppliers and partners comply with ethical and sustainable practices. Compliance with all applicable laws, regulations, and institutional policies is a fundamental obligation. Through continuous review and improvement, KMUTNB strives to align its governance framework with international best practices and to make a meaningful contribution to society and sustainable development.

2. Human Rights and Personnel Health and Wellness

KMUTNB places strong emphasis on protecting human rights and enhancing the well-being of its faculty, staff, and students. We respect the dignity, equality, and freedom of all individuals and are dedicated to maintaining a safe, healthy, and supportive environment that fosters both physical and mental wellness. Our policies encourage inclusivity, diversity, and mutual respect, while promoting work-life balance and personal growth. By cultivating a caring and respectful culture, KMUTNB ensures that every member of the University community can thrive and reach their full potential.

3. Environmental Sustainability

KMUTNB recognizes its vital role in protecting the environment and promoting sustainable growth. We are committed to reducing carbon emissions, conserving energy and natural resources, and minimizing waste across all operations. The University integrates sustainability principles into its teaching, research, and campus management, while investing in environmentally friendly technologies and practices. We encourage active participation from all members of our community in initiatives that foster environmental awareness and responsibility. Through ongoing monitoring and improvement, KMUTNB aims to contribute to a greener and more sustainable future.

4. Diversity and Equality

KMUTNB is dedicated to creating an inclusive and equitable environment that values every individual. We promote equal opportunities in recruitment, career advancement, and leadership, believing that diversity drives creativity, innovation, and institutional excellence. The University enforces a strict zero-tolerance policy toward discrimination, harassment, or bias in any form. By upholding fairness, respect, and equal treatment, KMUTNB strives to build a community where everyone feels valued, empowered, and able to contribute fully to the University's mission and success.

KMUTNB AND THE SDGS

SDG 1 NO POVERTY

This goal serves as a guiding compass for KMUTNB's commitment to addressing one of the most pressing global challenges: poverty eradication. Our approach to SDG 1 in 2024 revolves around three main pillars: education, research, and community engagement. KMUTNB is dedicated to providing affordable, high-quality education and scholarships to underprivileged students. Through financial assistance programs, mentorship initiatives, and temporary employment opportunities within the university, we empower economically disadvantaged individuals to access education and break the cycle of poverty.

During 2024, KMUTNB continued to provide financial support to students with low income through multiple channels, including tuition assistance, subsidized dormitories, and scholarships for both Thai and international students. Partnerships with business sectors, NGOs, and government institutions facilitated scholarships for students from lower-middle income countries, such as Laos, Myanmar, Nepal, and Pakistan. Notable collaborations include scholarships established with alumni contributions and programs supported by corporate partners.

The 2024 Thai Panich (SCB) Bank Scholarship

In particular, KMUTNB actively facilitates a wide range of scholarship opportunities and financial support programs for students from economically disadvantaged backgrounds. Through collaborations with corporate partners, alumni, and various organizations, the university provides scholarships, tuition assistance, and living allowances to ensure that students can pursue their studies without financial barriers. These initiatives reflect KMUTNB's ongoing commitment to supporting students' education and empowering them to achieve their full potential.

Our faculties actively collaborate with alumni to establish merit-based scholarships for students from low-income backgrounds. These scholarships cover tuition fees, living allowances, or both. Furthermore, students can access temporary positions in university research units, laboratories, and administrative offices, providing practical experience while alleviating financial burdens. KMUTNB also operates weekly flea markets and co-op programs, enabling students and staff to generate extra income, and offering low-interest housing loans and emergency financial support for staff.

1 NO POVERTY

Various types of loans for students and staffs

Beyond campus, KMUTNB partners with local communities to develop sustainable livelihood programs, vocational training, and micro-business support. These initiatives aim to enhance economic self-sufficiency and provide long-term opportunities for vulnerable communities. Through research and engagement, KMUTNB leverages education as a powerful tool to lift individuals and communities out of poverty, offering hope and pathways toward a better future.

In 2024, these efforts continue to align with evidence-based strategies for poverty reduction. KMUTNB remains committed to SDG 1, ensuring that no one is left behind in our pursuit of a more equitable, inclusive, and poverty-free society. By addressing the root causes of poverty and promoting sustainable development, we move closer to realizing the vision of SDG 1.

Scholarship from various faculties in KMUTNB

2 ZERO HUNGER

This critical goal aligns with KMUTNB's mission to address global food security and promote sustainable agricultural practices. Our commitment to SDG 2 is reflected in multiple approaches that integrate research, education, and community engagement. KMUTNB researchers and students are actively involved in developing sustainable farming techniques, crop improvement strategies, and agroecological innovations to enhance food production, reduce waste, and improve the quality and availability of local food sources.

KMUTNB collaborates with local communities and farmer cooperatives to establish community gardens, educational programs, and sustainable agriculture initiatives. These partnerships empower communities to grow their own nutritious food, strengthen local food systems, and enhance access to healthy, locally sourced products. Through the Agritech and Innovation Center (AIC), the university provides technical services to support farmers in product analysis, quality assurance, and safe marketing practices. Additionally, workshops, seminars, and short courses-both online and on-site-are offered to students, staff, farmers, and local businesses to promote practical knowledge and skills in sustainable agriculture.

Food Sharing Program

2 ZERO HUNGER

Series of seminars and workshops are provided to students, staffs, business and farmers

Within campus, KMUTNB supports food security for students and staff through low-cost food shops, food banks, and provisions for diverse dietary needs, including vegetarian, vegan, and halal options. The university also organizes campaigns to donate food and supplies to local schools and communities, strengthening connections between the university and society.

By integrating food sustainability and nutrition into curricula, KMUTNB ensures that students understand the complexities of global food systems and the importance of reducing food insecurity. Advocacy for hunger relief extends to engagement with governmental bodies and NGOs to support policies promoting equitable access to nutrition and sustainable food practices.

While challenges remain in achieving zero hunger, KMUTNB remains dedicated to contributing to this critical global agenda. Through advancing research, fostering community engagement, and educating future leaders, the university is committed to a world where no one goes to bed hungry, as envisioned by SDG 2. Together, we strive toward a future in which food security is a universal reality.

Series of workshops are provided to students, staffs, business and farmers

Sport facilities in KMUTNB campuses

King Mongkut's University of Technology North Bangkok (KMUTNB) is deeply committed to advancing health, well-being, and equitable access to healthcare for all members of our community. Our efforts under SDG 3 emphasize both physical and mental wellness through education, research, infrastructure, and collaboration with public and private partners.

While KMUTNB does not have a medical faculty, our strong foundation in science, technology, and engineering enables us to contribute significantly to medical innovation and health promotion. Through interdisciplinary collaboration, our researchers and students develop medical-related devices such as automatic sanitizing robots, oxygen supply systems, and medication delivery robots. These innovations have been donated to hospitals and community health centers, supporting the broader healthcare system and improving public well-being.

To foster a healthy university environment, KMUTNB has implemented a Smoke-Free Campus Policy, which is strictly enforced and included in the student handbook. We also prioritize preventive health and active living by providing free-access sports facilities-including fitness centers, football fields, and running tracks-across all campuses. Health campaigns such as marathons, cycling events, and triathlons are organized annually to encourage physical exercise, with proceeds donated to local healthcare foundations and hospitals.

Public Health Policy and Awareness Announcements

Medical and Health Services

Health services at KMUTNB are comprehensive and inclusive. Each campus houses a University Health Center that provides daily medical care and consultation. Licensed physicians, nurses, and mental health specialists, including psychiatrists, are available for students and staff. Telemedicine services and online consultations are also offered free of charge. In addition, the university provides accident insurance for all staff members and subsidized health insurance for both students and staff to ensure financial protection in times of medical need.

KMUTNB places great importance on mental health and psychological well-being. We regularly conduct mental health awareness campaigns, counseling programs, and stress management workshops to create a supportive campus culture. Partnerships with governmental and non-governmental organizations strengthen these initiatives and extend their benefits to nearby communities.

Training and Workshop Activities

Educational outreach is another key component of our SDG 3 strategy. The university organizes workshops and seminars on first aid, CPR, and emergency response training for students, employees, and local residents. In 2024, several university faculties and student associations hosted health promotion activities and volunteer programs that provided free health checkups, blood donation drives, and wellness education to surrounding communities.

Through these sustained efforts, KMUTNB reinforces its commitment to ensuring the health and well-being of not only our university community but also society at large. By advancing innovation, promoting active lifestyles, supporting mental wellness, and strengthening healthcare access, we continue to uphold the global vision of SDG 3—a world where everyone can live a healthy and fulfilling life.

Various R&D projects and seminar series related to SDG3 in KMUTNB

At King Mongkut's University of Technology North Bangkok (KMUTNB), we believe that education is the foundation of sustainable development-a force that empowers individuals, transforms communities, and drives progress toward a more equitable world. Our commitment to SDG 4 is reflected through a comprehensive and inclusive approach that ensures equitable access to quality education for all.

KMUTNB continually expands access to education through scholarships, financial aid programs, and online learning initiatives designed to remove barriers for students from diverse backgrounds. The university provides support for economically disadvantaged students through notebook lending programs, subsidized internet packages, and free access to essential licensed software such as Microsoft Office, MATLAB, Adobe, SPSS, and Turnitin. Our IT and online learning centers ensure that all students can fully participate in digital learning environments through platforms such as Microsoft Teams, Webex, and Zoom.

Following the lessons learned from the COVID-19 pandemic, KMUTNB has adopted a hybrid teaching model that blends on-site and online instruction. This flexible approach has enhanced accessibility and inclusivity, ensuring that all students-both local and remote-can continue their studies effectively. We also invest in continuous improvement of teaching quality through innovative pedagogies, active learning, and technology-integrated classrooms to strengthen critical thinking, problem-solving, and creative innovation skills.

Tools and softwares for online learning for KMUTNB staffs and students

University Learning and Knowledge Development Workshops

Knowledge transfer to community by KMUTNB

Beyond our campuses, KMUTNB is committed to extending educational opportunities to local and regional communities. Various outreach and knowledge transfer projects are regularly conducted, such as brain-based learning workshops for primary school students in Phetchaburi province and English communication training programs for Bangkok taxi drivers. These initiatives demonstrate our dedication to bridging educational gaps and enhancing lifelong learning beyond formal university settings.

In 2024, KMUTNB organized and participated in several academic development programs and international collaborations that align with the spirit of SDG 4. These include educational exhibitions, exchange and partnership agreements, and academic conferences aimed at enhancing teaching quality, research, and internationalization efforts. The university also hosted professional training and mentoring sessions for educators, students, and industry professionals to promote knowledge sharing and continuous improvement.

KMUTNB strongly believes that education should not only focus on academic achievement but also foster global citizenship, ethical responsibility, and intercultural understanding. Through exchange programs, study abroad opportunities, and curricula that incorporate global issues and sustainability perspectives, we prepare our students to become responsible leaders in an interconnected world.

Our unwavering dedication to SDG 4 reflects the university's core belief that education is not a privilege but a fundamental right. By expanding access, enhancing quality, and promoting innovation and inclusion, KMUTNB continues to build a learning environment that empowers individuals and communities to realize their full potential-creating a sustainable future through the transformative power of education.

At King Mongkut's University of Technology North Bangkok (KMUTNB), we firmly believe that gender equality is not only a fundamental human right but also a key driver of sustainable development. Our approach to SDG 5 is grounded in comprehensive initiatives designed to empower all individuals and promote gender equity across every level of the university.

KMUTNB is deeply committed to fostering an inclusive and respectful campus culture that celebrates diversity and supports equality for all genders. The university has established gender-neutral facilities, organized awareness campaigns, and developed support services to ensure a safe and welcoming environment for every member of the community.

To prevent discrimination and harassment, KMUTNB has enacted a university-wide sexual harassment prevention policy, made publicly available through the university's website and student handbooks (The 2011 Regulations for Student Discipline). The university also provides clear reporting mechanisms, including an appeal box that allows individuals to report harassment cases directly to the KMUTNB President.

The 2011 Regulations for Student Discipline at King Mongkut's University of Technology North Bangkok

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King Mongkut's University of Technology North Bangkok agrees to improve regulations for student discipline in order to maintain university standards that are commensurate with the prestige and upgraded status of the university under government supervision. The regulations will encourage students to respect individual rights and responsibilities as well as practice self-discipline, and behave appropriately as required by law, rules and regulations so that the university population are well-mannered, well-behaved, well-adjusted community members observing the traditions and culture of the university and its social environment until graduation.

The University's Website and Student Handbooks

We continuously raise awareness through seminars, workshops, and training programs that address gender equality, respectful communication, and inclusivity in human resource management. KMUTNB enforces a policy on transgender rights, which allows students and staff to wear official university uniforms according to their gender identity.

Student Dress Code Guidelines for Gender Identity and Expression

Campus Facilities Supporting Gender Diversity

In addition, KMUTNB has developed inclusive campus facilities, such as gender-neutral and LGBTQ+ restrooms, to accommodate the diverse needs of all individuals. For instance, newly renovated restrooms in key academic buildings and student service areas have been redesigned with privacy-focused layouts and accessibility features, creating a welcoming environment for everyone regardless of gender expression or identity. These facilities serve as a model for other universities aiming to promote gender inclusiveness in Thailand.

To further strengthen gender equality, KMUTNB actively encourages women's participation in leadership roles, ensuring equitable representation at all organizational levels — from faculty and administrative positions to student associations. Female staff members are promoted based on merit, with representation extending up to vice-presidential and university council positions, demonstrating the university's commitment to eliminating gender-based barriers.

KMUTNB also ensures that pregnant students and staff receive full institutional support. There are no restrictions placed on their academic or professional responsibilities. Female staff are entitled to 90 days of fully paid maternity leave, accompanied by a financial gift from the KMUTNB Cooperative. In addition, child-friendly spaces are provided in selected areas, allowing parents to stay with their young children in designated canteen or relaxation rooms during working hours.

5 GENDER EQUALITY

To promote intercultural understanding and inclusivity, KMUTNB hosts international and multicultural events that bring together staff and students from various countries to participate in sports competitions, cultural exchanges, and social activities — all conducted with respect for equality and gender diversity.

KMUTNB recognizes that the pursuit of gender equality is an ongoing and dynamic process. Our mission is to contribute to a world free from gender-based discrimination and violence — a world where all individuals, regardless of gender, can thrive, lead, and realize their full potential.

Campus Engagement Activities

KMUTNB's commitment to SDG 6: Clean Water and Sanitation reflects our dedication to preserving water resources and ensuring equitable access to clean water and sanitation for all. Our approach encompasses a wide range of initiatives and strategies to promote water conservation, sustainable usage, and hygiene.

KMUTNB has implemented responsible water management practices throughout its campuses. These include the adoption of water-saving technologies, rainwater harvesting systems, and educational campaigns to promote water conservation among students and staff. Researchers also conduct studies on water purification, wastewater treatment, and sustainable water resource management, providing valuable insights for improving water quality and accessibility.

Rainfall water storage tanks on the upper deck level

Across all campuses, approximately 85% of buildings are equipped with water-efficient appliances, such as automatic sensors for taps, toilets, and urinals. Eco-water flushing systems are installed throughout the facilities, including restrooms and auditoriums. Some areas feature solar-powered irrigation systems for gardens, promoting both water and energy efficiency.

Rainwater harvesting is also widely practiced. Most campuses have rainfall storage tanks for reuse in toilet flushing and rooftop gardens. The main campus features a medium-sized pond for tree gardening, while Rayong and Prachinburi campuses have large ponds that serve both gardening and ecological balance functions.

Automated restroom for saving water

Main combine sewerage pond at KMUTNB Rayong Campus (with solar power fountain)

Main combine sewerage pond at KMUTNB Bangkok Campus with the solar power turbine

In terms of sanitation, all university buildings have individual septic tank systems for wastewater treatment. Automatic treatment systems are used in canteen areas, and the Rayong Campus employs centralized wastewater treatment before discharge. Additional water treatment innovations include mobile treatment trucks, solar-powered purification systems, and recycled water for gardening and toilets (KMUTNB SDGs Facebook Album).

To support daily living, KMUTNB provides free-access clean water stations in almost 90% of all buildings. Drinking water quality is regularly tested to meet ISO, Thai FAO, and NSF standards. Routine maintenance ensures efficient use of water systems, preventing leaks and wastage. Water used for both drinking and washing is sampled and tested regularly for safety assurance.

Free-Access Clean Water Stations on Campus

KMUTNB also fosters partnerships and outreach programs to extend the impact of SDG 6 initiatives. For instance, the Faculty of Applied Science, Environment and Energy hosted a seminar for local farmers in Rayong Province on technologies for automatic water quality monitoring in agriculture (Seminar on Water Monitoring Technology).

Moreover, various faculties offer academic courses related to water conservation and water quality management, nurturing the next generation of sustainability-driven engineers and scientists. Research efforts are further strengthened through the Center for Water Engineering and Infrastructures (CWEIR), which focuses on advancing sustainable water systems (CWEIR Research Center).

Collaborative Water Conservation Events and Seminars

KMUTNB recognizes that the pursuit of clean water and sustainable sanitation is an ongoing and vital mission. Our goal is to contribute to a world where everyone has equitable access to safe, clean, and reliable water resources. Through continuous innovation, responsible management, and community engagement, we strive to preserve this essential resource for present and future generations. We believe that safeguarding water is not only a matter of environmental responsibility but also a foundation for human well-being and sustainable development.

KMUTNB recognizes the crucial role of access to affordable, reliable, and clean energy in achieving a sustainable future. Our commitment to SDG 7 focuses on reducing the university's carbon footprint and promoting renewable energy adoption across all campuses. We have invested in energy-efficient infrastructure, solar energy systems, biogas, and waste-to-energy technologies to partially supply our energy consumption, while ensuring that all new constructions and renovations follow energy efficiency standards, such as Thailand's "Green Office" certification. Monthly monitoring of energy use and university-wide awareness campaigns encourage both staff and students to minimize unnecessary electricity consumption, supporting Thailand's national goal of net-zero emissions by 2050.

University Seminar on Achieving Net Zero Campus

KMUTNB emphasizes renewable energy research and innovation, supporting projects in solar energy, smart grids, and energy conversion. Research centers and collaborations with domestic and international partners focus on developing sustainable energy solutions, training the next generation of engineers and scientists to lead in the field of clean energy. Additionally, the university conducts seminars, workshops, and academic courses on energy efficiency and renewable energy for students, communities, and industry stakeholders, promoting knowledge transfer and practical applications.

Seminar on University Initiatives for Net Zero Greenhouse Gas Emissions

Multiple renewable energy projects have been implemented since 2021. Solar farms, rooftop solar panels, solar-covered walkways, and solar-powered campus watering systems generate approximately 2,160 kWh per day, while the Rayong campus solar farm powers walkway lighting and electric shuttle buses. The university's zero-waste incinerator contributes additional energy, and pilot studies using biodiesel, biogas, and biomass aim to produce over 100 kWh per cycle for the Rayong campus. Energy-efficient appliances, including LED lighting, air-conditioning units, and ventilation systems, are maintained on a quarterly schedule, supplemented with smart power monitoring, smart classrooms, and other digital-university infrastructure.

Solar Panel on cover way and rooftop on Faculty of Science, Environment and Energy building that reduce the release of carbon about 22.55 ton/year
(https://sciee.kmutnb.ac.th/vdo.php)

Multiple renewable-energy projects have been implemented in 2024. For example, KMUTNB hosted the campaign "60+ Earth Hour 2024" at 20.30–21.30 on 23 March 2567 to promote electricity-saving behaviour. green.kmutnb.ac.th The university also took part in the "Green University ทิ้งเทิร์น ให้โลกจำ" initiative organised by GC & AIS, aimed at promoting electronic-waste and plastic recycling. green.kmutnb.ac.th

Various Renewable Energy Programs and Projects
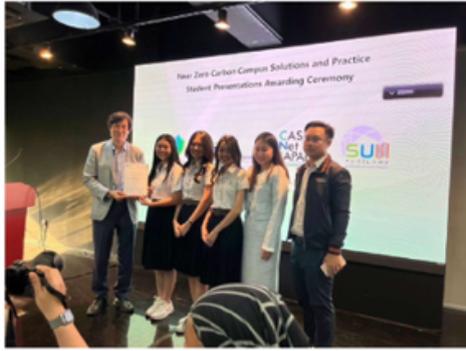
Participation in Meetings with External Agencies

In research and innovation, KMUTNB's initiatives explore technologies such as smart energy monitoring, renewable generation and energy-conversion solutions. Through partnerships, for example with the Department of Alternative Energy Development and Efficiency and international collaborators, the university supports development of sustainable energy systems, preparing the next generation of leaders in clean energy. In addition, seminars and courses on renewable energy and energy-efficiency are provided to students, staff and community stakeholders via programmes in the Faculties of Engineering and Applied Science.

Through infrastructure upgrade, behavioural change, research and community engagement, KMUTNB is actively working toward a future where clean, reliable and affordable energy is accessible to all, reinforcing the vision of SDG 7.

8 DECENT WORK AND ECONOMIC GROWTH

Our commitment to this goal reflects our dedication to fostering sustainable economic development and promoting quality employment opportunities. KMUTNB equips students with essential skills and knowledge to thrive in the job market, emphasizing entrepreneurship, job readiness, and lifelong learning. We foster a culture of innovation and entrepreneurship through incubation programs, business competitions, and startup ecosystems such as KMUTNB Start-up and KMUTNB Technopark, which provide mentorship and seed funding for student entrepreneurs. These initiatives empower students to create innovative businesses that contribute to national economic growth and technological advancement.

In 2024, KMUTNB continued to expand practical training and entrepreneurship support through various projects and collaborations. The university hosted the Startup & Innovation Ecosystem 2024 in partnership with local industries (KMUTNB Technopark, 2024), promoting innovation-driven enterprises among students and young researchers. The Faculty of Industrial Education and Technology organized skill enhancement programs to develop digital and industrial competencies, aligning workforce readiness with Thailand's evolving economic landscape. Furthermore, the Smart Entrepreneur Camp 2024 and Career Readiness Development Week were launched to prepare graduates for high-value employment and sustainable careers in the 21st-century economy.

KMUTNB also collaborates with local businesses, communities, and organizations to drive inclusive economic development. Through projects like "Innovation and Career Development for Sustainable Industry" and "Community-based Economic Empowerment 2024", the university provides academic expertise, technology transfer, and entrepreneurship guidance to SMEs and local enterprises, ensuring that economic growth benefits all sectors of society.

Various Projects and Collaborations

8 DECENT WORK AND ECONOMIC GROWTH

To uphold good governance and transparency, KMUTNB adheres to the national policy framework on anti-corruption and accountability under the Office of the National Anti-Corruption Commission (NACC). The university has been recognized for its commitment to ethical management and transparency, continuously participating in the NACC Integrity Assessment Program. These efforts reflect KMUTNB's strong stance on integrity, human rights protection, and ethical operations, including zero tolerance for discrimination, child labor, and forced labor, as aligned with the Ministry of Higher Education's policies.

In addition, KMUTNB fosters sustainable industrial innovation through research and partnerships. Our researchers work on economic development projects that promote decent work and industrial transformation. For instance, initiatives like "Green Energy and Smart Industry Development 2024" and "KMUTNB Sustainable Technology Transfer Program") focus on developing sustainable technologies and skill-based employment opportunities that align with Thailand's bio-circular-green (BCG) economy model.

Through these combined efforts in education, entrepreneurship, ethical governance, and research, KMUTNB remains deeply committed to advancing decent work and sustainable economic growth. Our mission is to build a future where economic prosperity is inclusive, innovation-driven, and environmentally responsible—fully aligned with the aspirations of SDG 8: Decent Work and Economic Growth.

KMUTNB's commitment to SDG 9 demonstrates our dedication to promoting sustainable development through innovation, technology, and infrastructure. The university fosters a strong culture of research, entrepreneurship, and practical application of knowledge. Our academic programmes in engineering, technology, and applied sciences are designed to equip students with the skills to drive technological progress, solve real-world problems, and respond to the needs of industry and society. We actively encourage startups and innovation through the KMUTNB Start-up platform, providing incubators, mentorship, funding guidance, and access to laboratories and prototyping facilities to support both student and community-led innovations. Collaborations with local communities, industries, and government stakeholders strengthen infrastructure projects, including sustainable transportation, renewable energy systems, digital communication networks, and smart campus initiatives. Our partnerships with KMUTNB Technopark, the Science and Technology Research Institute (STRI), and the MOU Database facilitate research, technology transfer, and the adoption of sustainable industrial practices.

Awards Achieved by University Representatives in Collaborative Competitions

Awards Achieved by University Representatives in Collaborative Competitions

In 2024, KMUTNB implemented the "Innovation Ecosystem for Community & Industry" initiative, which involved students and faculty conducting community-oriented research projects addressing local challenges, such as sustainable infrastructure, automation solutions, and energy efficiency in industrial processes (Innovation Ecosystem 2024). Cooperative education programmes were held in partnership with industries, giving students practical experience in production, project management, and technology application. Entrepreneurship courses such as Design Thinking workshops and Pitching Days, supported by the National Innovation Agency (NIA), enabled students to develop inventions, present business ideas, and connect with industry mentors (Design Thinking & Pitching 2024). Furthermore, students had opportunities to present research findings at conferences and engage directly with companies, including BMW, Shell, and Aeroflex, fostering industry collaboration and real-world problem solving (Student Conference 2024).

Through these efforts, KMUTNB ensures that industry, innovation, and infrastructure contribute not only to technological progress but also to social inclusivity, community empowerment, and environmental sustainability. By combining research, entrepreneurship, and community engagement, we cultivate a future where innovation drives sustainable development and prepares students to become leaders in science, technology, and industry, fully aligning with the principles of SDG 9.

10 REDUCED INEQUALITIES

KMUTNB recognizes that addressing inequalities is not only a matter of social justice but also essential for sustainable development. The university is committed to providing equal access to quality education, offering scholarships, financial aid, and student dorm support to reduce educational disparities, particularly for lower-income students, students with disabilities, and students from diverse backgrounds. Our commitment to inclusion extends across campus through accessible facilities, inclusive policies, and programs that foster a welcoming culture for all. In collaboration with local organizations, NGOs, international institutions, and government agencies, KMUTNB implements initiatives that empower marginalized communities through education, job training, and community development. Notable scholarship programs involve partnerships with DAAD, Bangchak, and Her Royal Highness Princess Maha Chakri Sirindhorn Projects, as well as alumni-supported funds that provide tuition, allowances, or both for high-performing students from lower-income backgrounds.

Support for Scholarship Funds

Collaboration with External Agencies to Promote and Improve the Quality of Life for Persons with Disabilities

To institutionalize equality, KMUTNB has established policies endorsed by the university council to prevent discrimination based on gender, income, religion, nationality, age, or disability, aligning with guidelines from Thailand's Ministry of Higher Education, Science, Research and Innovation (MHESI). These policies are included in both the student and staff handbooks. The university provides direct reporting channels to the president and university council for cases of discrimination or harassment and monitors student and staff admissions to ensure fairness, tracking profiles across gender, socioeconomic status, disability, nationality, religion, and geographic origin. KMUTNB promotes health and well-being through professional mental health services across all campuses. Respecting gender diversity, the university provides all-gender restrooms and facilities for LGBTQ+ students and staff, as well as spaces for religious practice, such as Muslim prayer rooms, and dietary options like halal and vegan food. Through these initiatives, KMUTNB strives to create a campus and community where all individuals, regardless of background, can thrive, reflecting the principles of SDG 10 and contributing to a more equitable society.

Parking lots and for automatic sensors of
water taps for handicapped person

Halal Food Shop

KMUTNB's commitment to this goal reflects our dedication to fostering urban sustainability and building resilient communities for the future. The university serves as a model for sustainable urban living by integrating green infrastructure, renewable energy, and eco-friendly transportation across all campuses. Academic programs emphasize urban planning, sustainable architecture, and community development, preparing students to address the challenges of rapid urbanization. We also collaborate with local municipalities and community groups to promote green spaces, waste reduction, and affordable housing—initiatives that aim to improve the overall quality of urban life. Our research and outreach activities address key urban issues, offering innovative and sustainable solutions that align with Thailand's long-term sustainability vision.

To support Thailand's carbon neutrality target by 2050, KMUTNB prioritizes green commuting and energy-efficient construction. The university provides on-campus shuttle buses, electric vehicles (EVs), bicycles, and pedestrian pathways to reduce carbon emissions and traffic congestion. In 2024, KMUTNB expanded its EV charging facilities and enhanced its green commuting programs to encourage low-carbon mobility among staff and students. New buildings are designed under the Smart University policy, incorporating automated fire alarm systems, motion-sensitive lighting, and energy-efficient air-conditioning. The university's digital transformation further supports sustainability—online registration, e-learning platforms, and administrative e-services help reduce on-site activities and paper consumption (KMUTNB IT Service).

Small shuttle cars with EV supply are on service in

Bangkok campus

Shuttle bus are available for free of charge (15-minute

during rush hours) in Rayong and Prachinbuti campuses

All new constructions comply with the government's Energy Conservation Building Code (BEC), integrating natural ventilation, solar rooftops, and insulated materials. These initiatives have earned KMUTNB multiple awards from the Department of Alternative Energy Development and Efficiency for outstanding energy-saving design. Affordable, safe, and eco-conscious housing is also provided for students and staff, featuring full facilities and green communal spaces (KMUTNB Dormitory).
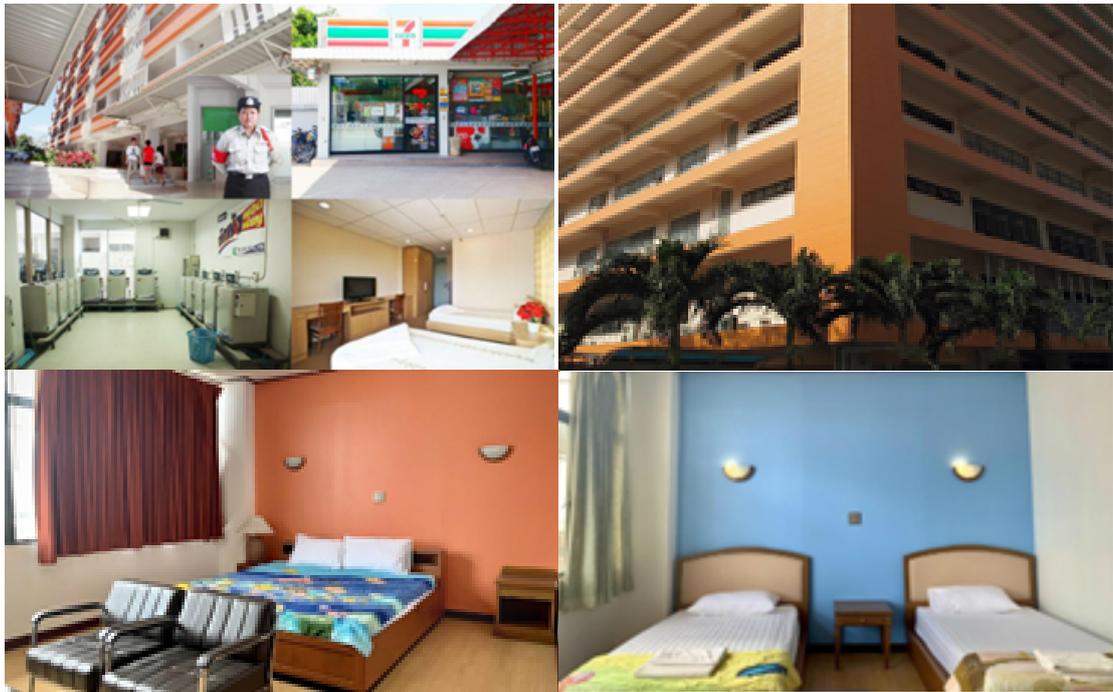
Student dorms and employee housing on campuses

Cafeterias in different locations in KMUTNB

Co-working spaces in different locations on campuses

In 2024, KMUTNB continued its green campus development, maintaining more than 1.9 million m² of forest areas across three campuses. The Prachinburi Campus serves as the largest green zone, while the Bangkok Campus showcases vertical gardens with smart watering systems. Meanwhile, the "Ring of Knowledge" project at Rayong Campus features a man-made orchard and recreational area that foster biodiversity and community well-being (KMUTNB Green Campus News)).

Vertical garden in KMUTNB to save water

In addition to promoting sustainability, KMUTNB emphasizes the creation of inclusive, healthy, and accessible spaces for students, staff, and the surrounding community. The university provides affordable dormitories and staff housing equipped with essential facilities and safety systems. Green spaces across the campuses- covering nearly 2 million m² - serve as natural habitats and recreational areas that enhance well-being and environmental balance.

An outstanding example of KMUTNB's commitment to sustainable and pleasant urban environments is the Faculty of Engineering's landscape improvement project, completed in 2024. The faculty renovated the outdoor area surrounding its buildings to create a green and welcoming space that benefits students, staff, and the public. The inauguration ceremony, held on 24 December 2024, was presided over by Professor Dr. Teerawut Boonyasopon, President of the University Council, and attended by faculty executives, alumni, staff, and students. This project reflects KMUTNB's dedication to integrating sustainability, functionality, and aesthetics into its campus development, reinforcing its role as a model for sustainable urban living.

Faculty of Engineering Opens Renovated Landscape Area for Public Use

Through these initiatives, KMUTNB continues to transform its campuses into living laboratories for sustainability-integrating energy efficiency, low-carbon mobility, biodiversity conservation, and cultural inclusion-to build resilient, inclusive, and sustainable communities aligned with the principles of SDG 11.

King Mongkut's University of Technology North Bangkok (KMUTNB) recognizes that responsible consumption and production are key pillars for achieving a sustainable future. The university is committed to minimizing its environmental footprint through waste reduction, sustainable sourcing, and eco-friendly campus operations. These efforts are integrated into both academic and administrative activities to foster a culture of sustainability across the university community.

KMUTNB's policy framework underlines the importance of reducing disposable materials such as plastic, paper, and single-use items, encouraging the use of reusable alternatives. The university continually monitors waste generation and supports recycling initiatives while promoting awareness through education and engagement. Laboratory researchers are required to comply with the ESPReL standard to ensure safe management of chemical and hazardous waste. Furthermore, KMUTNB upholds the Integrity and Transparency Assessment (ITA) principles to ensure ethical sourcing and avoid procurement from unethical suppliers.

Upcycling Plastic Bottles into Plant Pots Workshop

In 2024, KMUTNB carried out several impactful activities to advance SDG 12 and encourage sustainable practices within the campus community. The workshop on "Transforming Plastic Bottles into Plant Pots" provided participants with hands-on experience in upcycling plastic waste into functional and decorative items. This initiative not only reduced plastic waste but also inspired creativity and environmental responsibility among staff and students.

The Administrative Division organized a university-wide campaign to raise awareness on climate change mitigation, encouraging staff and students to take part in daily actions that reduce greenhouse gas emissions, such as energy conservation, reducing plastic use, and waste segregation.

The Faculty of Technical Education held its annual Big Cleaning Day 2024, engaging staff, students, and faculty members in large-scale cleaning and waste separation activities across campus buildings and public spaces. This event reflected the university's ongoing effort to promote cleanliness, recycling, and the responsible use of shared resources.

KMUTNB also participated in the "Green University: Thingtuen Hai Lok Jam Upvel 2" project, a collaborative initiative that promotes waste segregation and the circular economy within educational institutions. Through this campaign, the university reinforced its commitment to creating a low-waste, environmentally conscious campus that aligns with Thailand's national sustainability strategies.

Posters Promoting Energy Saving

Participation in Energy Conservation Activities

In addition, KMUTNB hosted the academic seminar "Driving Net Zero Campus: The University Network for Carbon Neutrality", bringing together representatives from various universities and government agencies to exchange knowledge and strategies for achieving net zero greenhouse gas emissions. This forum emphasized the integration of research, innovation, and practical implementation in driving Thailand's higher education institutions toward carbon neutrality.

To further encourage responsible resource use, the university organized several waste segregation awareness campaigns, promoting the correct use of four-color waste bins across campuses and teaching communities how to separate waste effectively. These campaigns helped increase recycling efficiency, reduce landfill waste, and strengthen environmental stewardship among the KMUTNB community.

Through these comprehensive initiatives, KMUTNB continues to serve as a model of sustainable education and responsible management. By integrating sustainability into operations, education, and outreach, the university aims to cultivate environmentally conscious citizens and contribute to the achievement of Sustainable Development Goal 12: Responsible Consumption and Production.

Participation in Energy Conservation Activities

13 CLIMATE ACTION

King Mongkut's University of Technology North Bangkok (KMUTNB) recognizes the critical importance of addressing climate change and its far-reaching impacts on the planet and future generations. The university has adopted a proactive climate action strategy that integrates renewable energy systems, energy-efficient infrastructure, and comprehensive waste reduction programs to minimize its carbon footprint. Since 2022, KMUTNB has conducted an annual carbon footprint assessment, recording a total of 32,754.14 tons of CO_2 equivalent across all campuses, equivalent to 1.02 tons CO2eq per student and personel.

Our academic programs emphasize climate science, sustainable energy, and environmental policy to build student awareness and responsibility toward global warming. Faculties such as the Faculty of Applied Science (Environment and Energy) and the Faculty of Engineering integrate sustainability principles into their curricula, preparing graduates to become future leaders capable of tackling climate challenges. The university also conducts research and community outreach on carbon management, renewable energy, and environmental conservation in line with Thailand's commitment to achieving carbon neutrality by 2050, as declared during the COP26 Summit.

In 2024, KMUTNB organized and participated in several impactful activities to drive climate action and environmental awareness within and beyond the university community. The university hosted the academic seminar "Driving Net Zero Campus: The University Network for Carbon Neutrality", which brought together representatives from universities, government agencies, and private sectors to share best practices and innovations for reducing greenhouse gas emissions in higher education institutions.

Academic Seminar with University Networks

39

Guest Lecture on Carbon Neutrality for Educational Institutions

Further reinforcing this commitment, KMUTNB faculty members participated as expert speakers in the national seminar "Net Zero Campus – Powering Universities toward Carbon Neutrality," where Asst. Prof. Dr. Kritchai delivered a keynote lecture titled "Initiation of Carbon Neutrality in Campuses and Schools" and launched the "Go Neutrality" campaign to promote carbon-neutral policies for academic institutions.

Providing Environmental Knowledge to Schools

To expand climate education and outreach, the university established the Mobile Environmental Learning Station Project at Nikomsangtoneng Rayong 10 School, where faculty and students from KMUTNB delivered interactive workshops on environmental awareness, waste segregation, and energy conservation. This project reflects the university's dedication to extending sustainability education beyond its campuses and empowering local youth to act on climate issues.

In 2024, the Central Library of KMUTNB was recognized with the "Climate Action Award" for its outstanding contributions to reducing greenhouse gas emissions and promoting eco-friendly operations. The library implemented energy-saving lighting systems, digital resource management, and waste reduction initiatives, aligning its operations with the university's sustainable management goals.

The Central Library Receives a Global Warming Reduction Award

13 CLIMATE ACTION

The training program "Management toward a Sustainable and Environmentally Friendly Organization" was also conducted for administrative staff and officers. The program provided practical knowledge on carbon reduction, sustainable office practices, and green innovation, helping participants translate policy into daily operational actions that support climate resilience.

To further demonstrate leadership in sustainability, KMUTNB continued research and collaboration projects on renewable energy production, including solar rooftop systems, biogas generation, and thermal energy recovery from waste incineration. These initiatives not only reduce the university's reliance on fossil fuels but also serve as living laboratories for students and researchers.

Training Program on Sustainable and Environmentally Friendly Organization Management

Through these collective efforts-academic engagement, community collaboration, green infrastructure, and policy advocacy-KMUTNB continues to drive progress toward a carbon-neutral future. The university's vision aligns with the Sustainable Development Goal 13 (Climate Action), striving to mitigate climate change through education, innovation, and sustainable campus practices that inspire action at local, national, and global levels.

King Mongkut's University of Technology North Bangkok (KMUTNB) is deeply committed to supporting the conservation and sustainable use of oceans, seas, and marine resources. Our initiatives reflect the understanding that the protection of aquatic ecosystems is vital to life on Earth and to achieving long-term environmental sustainability.

KMUTNB actively integrates environmental and marine conservation into both academic and extracurricular activities. Through teaching, research, and community engagement, we raise awareness among students and staff about the importance of preserving water ecosystems and promoting sustainable resource management. In line with our mission, the university organizes campaigns and collaborative projects for water and forest conservation in nearby communities, encouraging active participation in sustainable practices.

In 2024, KMUTNB implemented a variety of impactful projects and initiatives that align directly with SDG 14. The Office of Industrial Technology Development (OITD) organized the training program "Certified Wastewater Treatment System Supervisor", which provided participants with practical and technical knowledge on the operation, control, and maintenance of wastewater treatment systems. This program aims to build professional capacity for sustainable water resource management and pollution reduction within industrial and community sectors.

KMUTNB Organizes a Training Program on Water Pollution Control System Operators

SDG 14 LIFE BELOW WATER

KMUTNB AND THE SDGS

KMUTNB STI Students Win 2nd Runner-Up Prize in Marine Resource Conservation Innovation Contest

KMUTNB students from the Faculty of Industrial Technology and Management (VTECH) achieved outstanding recognition in 2024 by winning 2nd Runner-up in the Marine Resource Conservation Innovation Competition. Their project proposed creative solutions for marine ecosystem protection, showcasing the university's emphasis on innovation and environmental responsibility in student development.

Project on Developing a Master Plan for Community Wastewater Management in Rayong Province

Furthermore, the university collaborated with the Rayong Provincial Administrative Organization through the "Feasibility Study and Master Plan Development Project for Community Wastewater Management in Rayong Province." KMUTNB experts contributed to research, technical analysis, and policy recommendations to improve the efficiency and sustainability of local wastewater treatment systems. This project serves as a vital contribution to Thailand's regional water management and pollution prevention efforts.

The university also continues to foster community-based learning and sustainable tourism under the initiative "Following the Philosophy of the King's Sufficiency Economy towards Sustainable Organic Agriculture and Community Tourism." This program integrates environmental stewardship with cultural and economic sustainability, emphasizing water conservation, organic farming, and eco-friendly tourism in local communities.

Royal Initiative Follow-up Project for Sustainable Organic Agricultural Community-Based Tourism

Through these combined actions—academic engagement, applied research, technical training, and community collaboration—KMUTNB contributes to the preservation of aquatic environments and promotes responsible water management at both local and national levels. Our commitment to SDG 14 reflects a broader mission: to ensure that water ecosystems remain vibrant, resilient, and capable of sustaining life for generations to come.

Our commitment to SDG 15 reflects KMUTNB's dedication to protecting terrestrial ecosystems and promoting the responsible management of natural resources. The university strives to conserve biodiversity, restore degraded land, and support sustainable agriculture through academic, research, and community engagement initiatives.

In 2024, KMUTNB implemented several projects that contribute directly to biodiversity conservation and sustainable land management. Personnel and students from the Faculty of Industrial Technology and Management (FITM) actively participated in a community forest reforestation project, promoting environmental stewardship and expanding green spaces to enhance biodiversity and ecosystem resilience.

Projects Supporting Biodiversity Conservation and
Sustainable Land Management

The university also collaborated with Bangkok Governor Chadchart Sittipunt and the Bangkok Metropolitan Administration to renovate a public area into a "15-Minute Garden" at Wat Thong Sutharam, located near the Bang Sue area. This project aims to provide local residents with accessible green spaces that support both community well-being and urban ecosystem restoration.

In addition, representatives from the Faculty of Digital Agro-Industry, KMUTNB Prachinburi Campus, attended the public consultation session on government policy implementation for agricultural development and environmental sustainability in Prachinburi Province. Through this engagement, KMUTNB contributed academic insights and recommendations on sustainable farming practices, environmental protection, and the integration of digital innovation in agriculture.

Creating Green Areas from Public Spaces for Sustainable Use

The Nonthaburi Agricultural Technology and Innovation Center (NATIC) of KMUTNB also continued to drive smart agriculture initiatives in Nonthaburi Province, promoting modern agricultural technologies, precision farming, and environmentally friendly cultivation methods. These efforts aim to increase productivity while minimizing environmental impacts and protecting soil and water resources.

Furthermore, KMUTNB strengthened its regional collaboration under the Mekong–Lancang Cooperation Framework, supporting research networks related to rail systems and sustainable land infrastructure. This cooperation emphasizes regional integration that respects natural landscapes, promotes low-carbon development, and contributes to environmental sustainability across the Greater Mekong Subregion.

Through these combined actions—reforestation, sustainable agriculture, green urban development, and cross-border research cooperation—KMUTNB reinforces its role as a leader in environmental sustainability and biodiversity conservation. Our mission aligns with SDG 15, aiming to ensure that life on land thrives in harmony with human development for future generations.

Collaborative Projects with External Sectors

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Our commitment to this goal underscores our dedication to fostering a just, peaceful, and accountable society. KMUTNB offers academic programs in peace and conflict studies, human rights, and governance. We educate our students to become advocates for peace and justice, equipping them with the knowledge and skills to address social issues. We actively engage with local communities and civil society organizations to promote peace, justice, and strong institutions. Our initiatives aim to empower marginalized groups, promote access to justice, and strengthen democratic institutions. We advocate for human rights and accountable governance at local and international levels. KMUTNB collaborates with governmental bodies, non-governmental organizations, and international institutions to support peace and justice initiatives.

As we work towards SDG 16, KMUTNB recognizes the vital role of peace, justice, and strong institutions in achieving sustainable development. Our mission is to contribute to a world where societies are characterized by justice, accountability, and the peaceful resolution of conflicts. Through education, community engagement, research, and advocacy, we strive to create a future where peace, justice, and strong institutions prevail.

KMUTNB announces its Anti-Corruption Policy on the university website and in both staff and student handbooks. The university provides an online reporting system for corruption cases (Clue Reporting System) and enforces a No Gift Policy (Policy Link).

We uphold academic freedom, allowing faculty members to freely choose their areas of research and publicly share their findings. Our transparency policies cover both budget and procurement processes (Budget and Expense Information, Procurement System), with reporting channels available for suspected irregularities directly to the KMUTNB management committee.

In addition, the university continues to participate in the annual "Integrity and Transparency Assessment (ITA)" conducted by NACC to evaluate ethical performance and institutional transparency. This evaluation process enables KMUTNB to identify areas for improvement and maintain the highest standards of integrity in both academic and administrative operations. The consistent success in this assessment reflects the university's enduring dedication to maintaining transparency, fairness, and accountability in all aspects of its work. In 2024, KMUTNB further enhanced its transparency mechanisms by publicly disclosing information related to its budget, procurement processes, and strategic planning through official digital platforms. This openness not only fosters trust among internal and external stakeholders but also ensures compliance with national standards of good governance. The university also continued to uphold academic freedom, empowering researchers and faculty to pursue independent inquiry and to share their findings publicly without interference. This practice reinforces KMUTNB's role as a credible and responsible institution that contributes evidence-based insights to the development of public policy and governance in Thailand.

KMUTNB's Good Governance Principles

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

A vital aspect of KMUTNB's effort to strengthen strong institutions lies in promoting democratic participation and leadership among its students. The Student Council Election 2024 was conducted transparently and inclusively, allowing all students to participate in shaping their representation. The election process, including candidate announcements, campaign periods, and results, was openly communicated through multiple channels such as official websites, social media platforms, and university bulletins. The newly elected President of the Student Council and faculty representatives serve as intermediaries between students and the administration, ensuring that student voices are heard in decision-making processes related to academic policies and welfare. The student governance system at KMUTNB embodies transparency, fairness, and participatory values that prepare young people to become ethical leaders and active citizens. In addition to democratic engagement, student-led activities such as the "KMUTNB Games 2024" promoted unity, teamwork, and peaceful coexistence among students from different faculties. These activities highlight the university's holistic approach to fostering peace and justice not only through policies but also through culture, sports, and everyday student life. The Division of Student Affairs also hosted workshops and forums on leadership ethics, civic engagement, and participatory governance to nurture socially responsible leaders who understand the importance of justice, integrity, and collaboration in community development.

KMUTNB Games 2024 Organized by the Student Organization and Eight Faculty Clubs

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Beyond its campus, KMUTNB continues to expand cooperation with government agencies, civil society organizations, and local communities to promote good governance and social justice. In 2024, the university participated in seminars and community development projects aimed at strengthening ethical administration, promoting transparency in procurement, and supporting justice reform initiatives. Academic experts from KMUTNB also contributed policy recommendations on topics such as local governance, human rights, and institutional accountability, reinforcing the university's role as a think tank for sustainable and ethical governance in Thailand. Moreover, KMUTNB's policies regarding waste management, environmental protection, and occupational safety reflect its broader interpretation of "strong institutions," emphasizing accountability not only in administration but also in environmental and social responsibility. The university's internal committees for green office development, safety management, and social responsibility continued to operate under transparent and participatory frameworks, ensuring inclusive decision-making and continuous improvement.

Through its achievements in 2024, KMUTNB has demonstrated that peace, justice, and strong institutions are not abstract ideals but practical commitments embedded in the university's culture and operations. From its anti-corruption measures and transparent governance to its democratic student engagement and partnerships with the public sector, KMUTNB actively cultivates an environment of integrity and equality. The university stands as a model of ethical leadership and institutional resilience, contributing to Thailand's progress toward sustainable development. With a deep belief that education must be a force for justice and peace, KMUTNB continues to prepare graduates, staff, and researchers to be responsible global citizens who uphold transparency, fairness, and respect for human dignity—embodying the spirit and purpose of Sustainable Development Goal 16.

17 PARTNERSHIPS FOR THE GOALS

King Mongkut's University of Technology North Bangkok (KMUTNB) acknowledges that achieving the Sustainable Development Goals (SDGs) is not possible through isolated actions but through strong collaboration among all sectors of society. Guided by the spirit of SDG 17: Partnerships for the Goals, KMUTNB actively forges alliances with government agencies, private organizations, educational networks, and local communities to promote sustainability and collective impact. The university believes that building inclusive and strategic partnerships is essential to advancing shared knowledge, resources, and innovation for sustainable development.

The University's Participation in the National Campaign

In 2024, KMUTNB further strengthened its partnerships through a range of collaborative projects and initiatives. One of the year's major highlights was the university's participation in the national campaign "Green University: Turn Waste into Value-Upvel 2", which aimed to promote waste reduction, recycling innovation, and environmental consciousness across higher education institutions. The project encouraged students and staff to creatively transform waste materials into usable products, such as repurposing plastic bottles into decorative items and containers. The initiative not only reduced waste on campus but also cultivated a culture of innovation and environmental responsibility, fostering collaboration between universities, government agencies, and private sectors committed to sustainable development.

Seminar with Representatives from Universities Nationwide

Another significant activity was the academic seminar "Driving Net Zero Campus: Network of Universities Toward Carbon Neutrality", which gathered experts, policymakers, and representatives from multiple universities across Thailand. This seminar provided a platform for knowledge exchange, research sharing, and policy discussion on strategies for achieving net-zero greenhouse gas emissions in academic institutions. KMUTNB took a leadership role in presenting its environmental management framework and ongoing research in carbon footprint reduction. The collaboration demonstrated KMUTNB's active role in the national movement toward climate resilience and sustainable education.

KMUTNB strengthened its environmental partnerships by joining the national campaign "E-Waste for Green Spaces: Planting for the Nation on the Auspicious Occasion of H.M. the King's 6th Cycle Birthday Anniversary." This collaborative initiative, organized in partnership with government agencies, the private sector, and local communities, encouraged responsible disposal of electronic waste while contributing to national reforestation and carbon offset efforts. Under this project, every unit of E-waste donated by participants was converted into contributions for tree planting in designated green areas across the country. KMUTNB served as one of the university collection points, engaging students, faculty, and staff in environmental stewardship while raising awareness about E-waste management and circular economy principles. This partnership reflected the university's dedication to environmental responsibility, national collaboration, and the promotion of sustainable practices aligned with the SDGs.

KMUTNB Joins the 'E-Waste Equals Planting' Project to Create Green Spaces in Honor of the Royal 72nd Birthday Celebration

In addition, the Central Administration Division launched a university-wide campaign to raise awareness about climate change and sustainable lifestyles. The campaign included exhibitions, lectures, and volunteer activities designed to inspire environmental consciousness among the university community. These initiatives underscored KMUTNB's role as a model for sustainable practices in higher education and its ongoing partnership with local authorities and environmental networks.

Another notable initiative in 2024 was the university's participation in the Annual Sustainable Universities Network (SUN Thailand) Meeting, where KMUTNB shared its experiences in sustainable campus management and discussed collaborative opportunities in research, education, and outreach programs with other higher education institutions nationwide. This partnership fosters continuous learning and mutual support among academic institutions to accelerate the achievement of the Sustainable Development Goals.

Participation in the Annual Sustainable University Network Conference

Opening Ceremony of the Royal Rainmaking Open House 2024

Another remarkable collaboration in 2024 was KMUTNB's participation in the Opening Ceremony of the Royal Rainmaking Academic Open House 2024. This event, hosted in partnership with the Department of Royal Rainmaking and Agricultural Aviation, brought together experts, researchers, and students to exchange knowledge and research findings related to weather modification, water resource management, and sustainable agricultural development. KMUTNB contributed by sharing academic expertise and innovations that support environmental resilience and climate adaptation. The event not only strengthened academic and governmental collaboration but also inspired young scientists to apply scientific knowledge for the nation's sustainable development and environmental protection.

Through these initiatives, KMUTNB demonstrates that meaningful progress toward sustainability depends on cooperation and shared commitment. The 2024 activities reinforced a university-wide culture of partnership that extends to communities, government agencies, and industries. These collaborative efforts not only advance KMUTNB's environmental goals but also promote inclusive education, social participation, and innovation. By aligning its mission with the principles of SDG 17, KMUTNB continues to build strong and enduring partnerships that empower people, strengthen institutions, and contribute to a more sustainable and resilient future for all.

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