PRINCE OF SONGKLA UNIVERSITY

PSU for Mankind

SUSTAINABILITY REPORT 2024

Our Soul is for the Benefit of Mankind

PRINCE OF SONGKLA UNIVERSITY SUSTAINABLE DEVELOPMENT GOALS

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PSU PRINCE OF SONGKLA UNIVERSITY | SUSTAINABILITY REPORT 2024

MESSAGE FROM THE PRESIDENT
PRINCE OF SONGKLA UNIVERSITY

At Prince of Songkla University (PSU), we are committed to fostering sustainable growth by contributing to the development and management of the physical, and knowledge-based pillars of the United Nations Sustainable Development Goals (SDGs). Aligned with our mission, we strive to enhance the environment, economy, and society, especially within the local communities of southern Thailand, while ensuring a prosperous future for the next generation, propelling both PSU and society toward greater sustainability.

The challenges to sustainable development are complex and interconnected, with global risks like pandemics and climate change exacerbating existing social and economic disparities. Nevertheless, as an educational institution, we remain determined to find innovative solutions that will allow us to meet and exceed our sustainability commitments moving forward.

While the SDGs offer a framework for a more sustainable future, real progress requires tangible action. For us to succeed collectively, everyone must not only contribute to the broader goals but also take individual responsibility for playing their part. It is my hope that this report will inspire our community to continue advancing on this path toward sustainability.

Assistant Professor Dr.Niwat Keawpradub
President Of Prince of Songkla University

ABOUT
PRINCE OF SONGKLA UNIVERSITY

Prince of Songkla University (PSU) was founded in 1967 as the first university in southern Thailand, with the primary goals of improving education standards and fostering regional industrial and economic development. PSU operates across five campuses: Hat Yai, Pattani, Phuket, Trang, and Surat Thani.

Today, PSU is recognized as a leading public university, renowned for its commitment to academic excellence, innovative research, and contributions to society. It is one of Thailand's nine national research universities and consistently ranks among the top 10 comprehensive universities in the country, as highlighted by QS and THE World University Rankings.

With a strong legacy of achievements in teaching, research, and community service, PSU continues to play a vital role in the nation's progress, producing highly skilled graduates who make meaningful contributions to their fields.

PHILOSOPHY
OF THE PRINCE OF SONGKLA UNIVERSITY

PSU was established under the Southern Development Plan policy with the intention to become the leading university in the southern region of Thailand, in terms of delivering graduate students, academic research and academic services whilst appreciating and maintaining arts and culture. The university's management aims to develop and deliver graduate students that empower the country and also hold on to Thailand's educational guidelines which focus is placed upon graduates equipped for the real world.

PSU's educational philosophy is based on Progressivism, with the aim to develop students in all aspects and prepare them to thrive in their respective societies. This includes assisting them in adapting to unpredictable circumstances by using learning process methods and treating students as the center of attention. Various learner needs, such as problem solving, self-researching processes and taking action inside and outside of the classroom, are considered fundamental to PSU's "sustainable learning" approach. This led to the formulation of the idea that "change brings improvement" - a type of learning where students are able to apply these methods both at the university and in real-life environments. PSU aims to provide their students with a lifelong learning approach.

The above-mentioned rationale forms the basis of outcome-based education, developing curricula and the various learning processes listed as follows. Active Learning means learning from a variety of activities and actions. Problem-based Learning describes learning based on problems-solving, e.g. through case studies. Project-based Learning refers to learning based on projects such as assignments and assessments. Service Learning means learning by serving the community. PSU aims to apply these principles successfully, as guided by the motto of the "Prince of Songkla", His Royal Highness Prince Mahidol Adulyadej: *"Our Soul is for the Benefit of Mankind"*.

VISION

"A valuable university for driving sustainable development at the forefront of the world"

MISSION

Building academic and innovation leadership

with research as a basis for the development of the southern region and the country, linking it to society and international networks

Building human resources with academic and professional competence

integrity, discipline, pursuit of wisdom, social engagement, and skills in the 21st century on the basis of practical experience

Developing the university into a knowledge-based society based on cultural diversity

and the principle of sufficiency economy, in order to foster development towards sustainability and a society of opportunity and fairness

SUSTAINABILITY AT PSU
PRINCE OF SONGKLA UNIVERSITY

Sustainability is a core focus at PSU, aligning its academic and research activities with the United Nations' Sustainable Development Goals (SDGs). PSU is dedicated to fostering sustainability in education, research, and community development, ensuring a positive and lasting impact on the environment and society.

PSU has undertaken several initiatives aimed at promoting sustainability on its campuses. These include resource management programs focused on energy efficiency, water conservation, and waste reduction. Additionally, the university supports sustainable agriculture, biodiversity conservation, and eco-friendly technologies that benefit the local community and beyond.

The university's research efforts are also directed towards sustainable development. PSU conducts projects addressing climate change, renewable energy, health and well-being, and sustainable urban and rural development. This research not only contributes to the global sustainability agenda but also supports local industries and economies, helping drive regional growth while preserving natural resources.

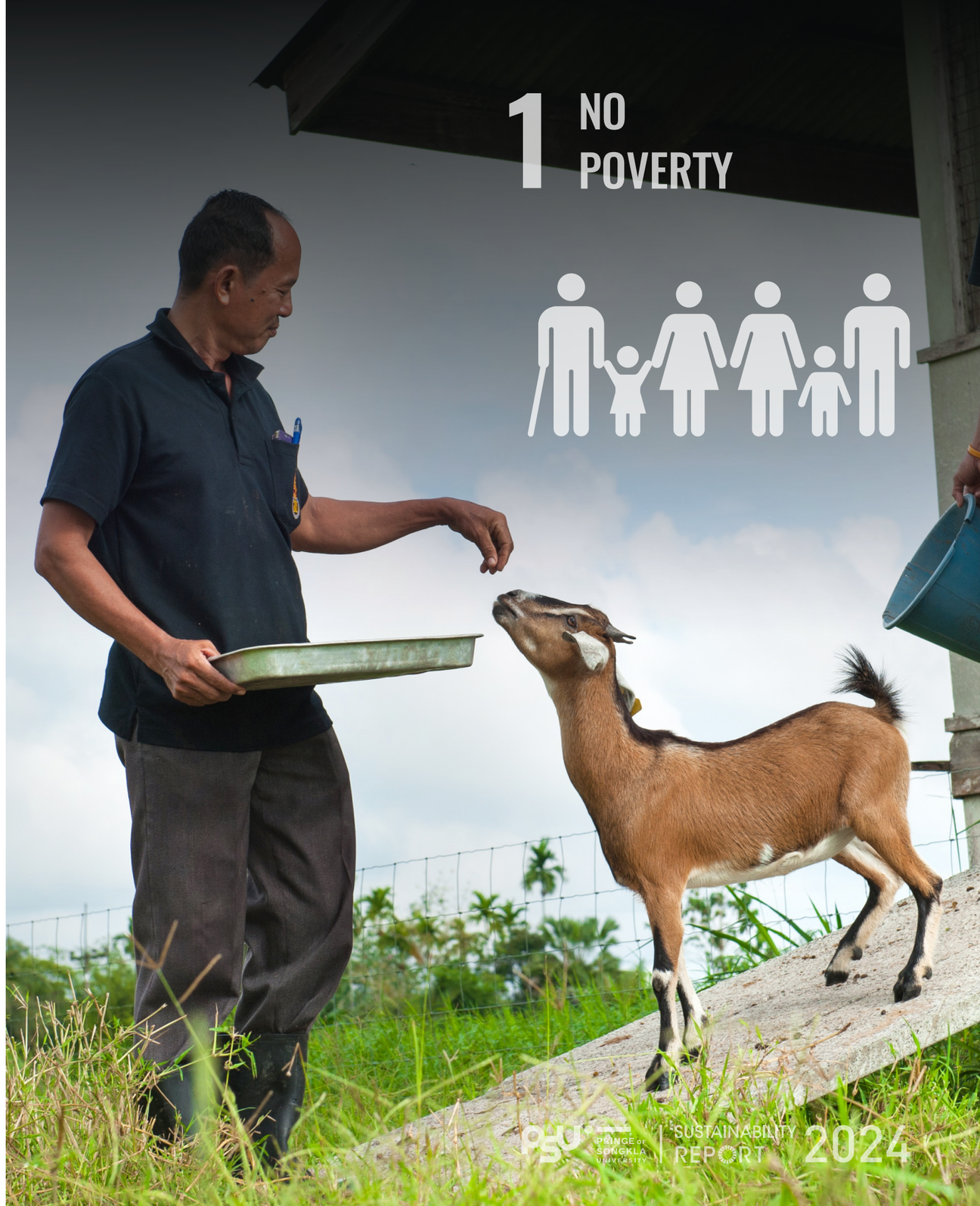
Through collaborations with international and local organizations, PSU strives to create sustainable solutions that can be scaled and applied in diverse contexts, making it a leader in advancing sustainability within the academic community and the wider region.

INTEGRATING SUSTAINABILITY IN EDUCATION
PRINCE OF SONGKLA UNIVERSITY

Prince of Songkla University acknowledges the significance of fostering students' understanding of the Sustainable Development Goals (SDGs). To support this, the university has designed general education courses, which are mandatory for all undergraduate students, to align with the 17 SDGs. In the academic year 2024, the university introduced over 490 general education courses that correspond to these goals.

It is recognized that experiential-based learning enables students to develop a deeper comprehension of SDG principles and enhances their capacity to apply these principles in real-life contexts. Accordingly, the general education courses are designed with a blended learning approach, emphasizing active engagement and practical experiences to strengthen students' learning outcomes.

Given PSU's commitment to developing the capabilities of human resources across all age groups, the Education and Innovative Learning Academy (EILA) at Prince of Songkla University established an online course as a learning resource on PSU MOOC for Thai citizens interested in educating themselves about the SDGs. In 2024, a total of 310 learners successfully earned certificates from this course



NO POVERTY

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PSU Scholarships for Low-Income Students

Prince of Songkla University (PSU) is committed to eradicating poverty by providing educational opportunities for students with financial difficulties. According to Section 16 of the University Act, the University is required to promote and support students who apply for admission to PSU, including those lacking financial resources, to have the opportunity to complete their studies and receive a degree. Therefore, the University has issued regulations on scholarship allocation, which are implemented across all five campuses.

PSU's financial aid program includes scholarships, emergency loans, tuition waivers, and work-study opportunities, all of which are designed to ensure that no student is left behind due to financial hardship. In 2024, the university has provided financial assistance through the following channels:

In total, 18,328 students received financial support amounting to 1,142,993,187 THB, representing a 12.5% increase from the previous year. This assistance has enabled financially disadvantaged students to continue their studies without interruption, thereby promoting educational equity and helping them to break the cycle of poverty.

PSU Sapling Scholarships

The PSU Sapling Scholarship was established by Prince of Songkla University to provide students from economically disadvantaged backgrounds with the opportunity to pursue their education through to degree completion. The program aims to empower students to achieve self-reliance, secure meaningful employment, and support their families.

The selection process targets talented yet underprivileged students from the fourteen southern provinces of Thailand who demonstrate strong potential for academic success. Scholarship recipients receive continuous financial support from the secondary to the tertiary level.

Scholarship Type	Total Amount (THB)	Number of Students Supported
Need-based scholarships	35,383,152	1,231
Work-based scholarships	3,893,935	1,193
Student Loan Fund	1,103,716,100	15,904
Total	1,142,993,187	18,328

Upon admission to PSU, students are exempted from tuition and university dormitory fees and receive living allowances to ease their financial burden. In the 2024 academic year, a total of 136 students were enrolled in the university under this program, with PSU providing approximately 5,398,000 THB in tuition support and 5,440,000 THB in living allowances. Moreover, 32 students successfully completed their studies and graduated in the same year.

Empowering Communities through Technology Innovation: The PSU "App Tech Kon Tani" Project

PSU, through its Pattani Campus, has launched the "App Tech for Poverty Alleviation in Pattani) project" as part of its commitment to advancing Sustainable Development Goal 1 (No Poverty). This initiative focuses on applying appropriate technologies and local innovation to reduce poverty, enhance livelihoods, and strengthen community resilience in the southern border provinces of Thailand.

The project is funded by the Office of the Management for Area-Based Development Fund and implemented through a participatory model involving the university, government agencies, civil society, and local communities. It targets at least 150 low-income households (around 750 people), aiming to increase household income by at least 20% through the adoption of practical and sustainable technologies.

A total of 10 ready-to-use technologies have been developed and transferred to local communities, including solar and biomass drying systems, seawater filtration devices, energy-efficient cooking stoves, feed production machines, and small-scale agricultural processing innovations. These technologies are designed to be simple, affordable, and adaptable to local needs, ensuring that they can be effectively utilized by households and community groups.

The App Tech Kick-off Event, held on 11 November 2024 at PSU Pattani, brought together key stakeholders from the public and private sectors to showcase technology prototypes and strengthen collaboration. Community participation has been integral throughout the project, ensuring that each technology responds directly to local challenges while promoting a sense of ownership and sustainability.

Enhancing the Goat Farming Value Chain in Pattani Province, Thailand

Pattani has consistently ranked among the five poorest provinces in Thailand for more than ten years (NESDC, 2022). In response, PSU launched the project Enhancing the Goat Farming Value Chain in Pattani Province, applying research and innovation to improve incomes and promote grassroots economic development. In 2024, Pattani had 9,755 goat farmers raising 51,782 goats, primarily as secondary income alongside rubber, rice, fishing, or small businesses. Farming is small-scale and traditional, with free-range and tethered methods. Key challenges include low productivity, limited knowledge, poor access to quality food, and insufficient investment. The project addressed these through a three-tiered approach: Upstream-registration, breeding support, farmer education, and veterinary care; Midstream–organic fertilizer and feed processing; Downstream–development of goat meat-based products. Key outcomes include 172 households benefiting, increased monthly incomes by 2,750-3,500 THB, doubled goat populations, and over 90 rai of communal farmland for feed cultivation.

PSU Pattani: Reducing Poverty through Vocational Education

In 2024, the Faculty of Nursing, Prince of Songkla University Pattani Campus, continued the High Vocational Innovation Scholarship Project under the Equitable Education Fund (EEF) to support underprivileged youth in Thailand's southern border provinces. The program provided one-year Certified Nursing Assistant (CNA) training for 47 students, with total funding of approximately 7,502,000 THB for tuition, living allowances, and student development.

All scholarship recipients received full financial support, including tuition, dormitory, and stipends, ensuring equitable access to education. Through close mentoring (3:1 student-advisor ratio) and comprehensive welfare systems, the program achieved 100% student retention and completion. The 2024 curriculum revision emphasized outcome-based learning, clinical competence, and employability aligned with labor market needs.

Partnerships with over 10 hospitals, including Pattani, Songkhla, and Bangkok Hospital Hat Yai, provided professional training and employment pathways. Graduates from previous cohorts achieved 100% employment within one year, earning 15,000-20,000 THB per month, and similar outcomes are anticipated for the 2024 cohort.

ZERO HUNGER

ขจัดความหิวโหย

Prince of Songkla University (PSU) is committed to promoting food security, sustainable agriculture, and equitable access to nutritious food within the university community and surrounding areas. Through collaborative programs among faculties, student organizations, and local partners, PSU strives to reduce hunger, minimize food waste, and strengthen knowledge sharing for sustainable food systems in alignment with UN SDG 2: Zero Hunger.

Policy on Safe Cooking and Consumption for Sustainable Development

Prince of Songkla University (PSU) has been actively driving the university towards sustainable development in accordance with the 17 Sustainable Development Goals (SDGs). The university has established a policy on food preparation to ensure that students, staff, and the general public consume high-quality, safe, affordable, and sufficient food. The procurement of ingredients and materials is transparent and verifiable, promoting food collaboration networks to ensure sustainable production and consumption patterns. Under the authority of Sections 34 and 39 of the Prince of Songkla University Act, B.E. 2559 (2016), the university issues this announcement on the policy of safe cooking and consumption for sustainable development as follows:

1. Promote the production of high-quality, nutritious, and diverse food.
2. Encourage sourcing food ingredients from producers that are free from contamination, with continuous quality inspections to ensure consumer safety.
3. Promote the production of food in quantities sufficient to meet consumption demands.
4. Ensure a transparent and auditable system for procuring ingredients and materials.
5. Establish measures to control food production and service to meet food safety and sanitation standards.
6. Promote waste management measures and the use of environmentally friendly resources.
7. Encourage vendors to offer healthy food menus.
8. Support price control measures to ensure food prices are appropriate to the quantity and quality.
9. Facilitate cooperation networks between the university, food vendors, and related networks such as local agriculture, organic farming, and safe food initiatives.
10. Promote the dissemination of health and safety information on food to students, staff, and the public.

Location	Dry Waste (kg)	Wet Waste (kg)	Food Waste (kg)	Recycled Waste (kg)
PSU Agro Market	99.0	505.0	831.0	140.0
Faculty of Natural Resources Canteen	146.0	483.5	435.0	18.0
Chang Cafeteria	1,613.0	1,145.0	222,500.0	2,349.0
Faculty of Liberal Arts	16,400.0	720.0	994.0	1,707.0
Faculty of Nursing	-	-	-	1,207.0
Total	**18,258.0**	**2,853.5**	**224,760.0**	**5,421.0**

Campus Food Waste Management

Campus Food Waste Management

PSU continuously monitors the volume of food waste generated from its canteens and campus markets to enhance efficiency in food management and promote responsible consumption. In the academic year 2024, food waste measurements were conducted across multiple facilities:

To raise awareness of waste reduction, the Faculty of Nursing launched a “Waste Bank Project: Turning Waste into Money” (August 2024 - March 2025) at the student dormitory co-working space. Participants earned income from recyclable waste, with 192 students reporting the highest level of satisfaction with the project outcomes.

Food Security and Hunger Alleviation for Students

PSU prioritizes the well-being of all students by ensuring that no one faces food insecurity. During 2024, the Faculty of Nursing continued the year-round “Pantry of Sharing” project, a community-based initiative that allows students to exchange food, clothing, books, and essential items at designated donation points within student dormitories.

The Faculty of Natural Resources, under its NR-SEn Entrepreneurial Graduate Project, empowered students to sell sustainable agricultural products during the 30th Southern Agricultural Fair. Students from multiple disciplines participated, offering safe, high-quality produce and processed foods. This hands-on activity not only enhanced students’ entrepreneurial skills but also promoted sustainable food production and consumption, in alignment with SDG 2.

To support students facing financial difficulties, the Faculty of Natural Resources also provided 150 lunch scholarships throughout 2024, while the Faculty of Nursing maintained its Emergency Loan Fund of up to 3,000 THB per student to cover living and food expenses. Alumni also joined hands through the NR Alumni Kitchen Project, providing cooked meals for students and local flood victims, a

strong example of PSU's community solidarity and student welfare support.

In parallel, the Faculty of Science launched its own Pantry of Sharing initiative at the Co-club area, where faculty, staff, and students contributed dry food, beverages, and essential items for students in need, reinforcing PSU's comprehensive student food support system.

Healthy and Affordable Food Choices

PSU continues to ensure that both students and staff have access to healthy, affordable, and diverse food options across campuses. The Faculty of Liberal Arts offers affordable meals starting from 27 THB per dish, with à la carte options ranging between 35-45 THB, and beverages priced from 25-40 THB. The Faculty of Nursing dormitory area features eight food stalls and five welfare shops selling nutritious meals at 30-50 THB, keeping food prices accessible for students.

The Agriculture Market (Talad Kaset PSU) operates five days a week, offering fresh, pesticide-free produce, seafood, and student-made processed foods. The market emphasizes environmental sustainability by encouraging the use of reusable cloth bags and banana leaves instead of plastic packaging.

In addition, PSU supports fair and inclusive access to campus food outlets, offering discounts at Café Amazon (Songklanagarind Hospital Food Center) for staff and medical personnel, as well as student-friendly promotions at Starbucks (Faculty of Science).

Knowledge Transfer and Sustainable Agriculture

PSU has actively provided agricultural knowledge, training, and access to technology to strengthen food security for local farmers and communities. In 2024, several key activities were organized:

- Smart Agriculture Skill Development Program (July 2024): A non-degree exhibition and training session by the Faculty of Natural Resources showcasing student innovations in smart farming technologies to agricultural officers and farmers.
- Comprehensive Oil Palm Management Training (December 2024): Conducted by the Faculty of Natural Resources to train university students and local farmers in sustainable plantation management.
- Goat Milk Quality Control Project (July 2024, Pattani Campus): Supported by the Ministry of Higher Education, Science, Research, and Innovation, this training provided 40 local goat farmers with knowledge of milk hygiene, quality control, and product processing for economic sustainability.
- Halal Goat Processing Workshop (November 2024): A collaboration between the Faculty of Natural Resources and PSU Halal Institute, providing practical training for graduates returning from abroad on halal livestock processing methods.
- Robusta Sabayoi+ Coffee Development Project (October 2024): Researchers trained local coffee farmers in Songkhla on sustainable harvesting, fermentation, and roasting techniques to improve product quality and income.

These initiatives illustrate PSU's strong role in bridging academic knowledge and community-based agricultural practices to ensure sustainable food production.

Promoting Local and Sustainable Food Systems

In 2024, PSU reinforced its commitment to supporting local economies by prioritizing procurement from local, sustainable producers. The Faculty of Nursing organized the "Sustainable Market", selling local fruits and vegetables from staff gardens at affordable prices.

Meanwhile, the Songkhla Provincial Community Development Office, in collaboration with PSU, hosted several local food and agricultural product fairs at the Agriculture Market (September-October 2024) featuring over 50 booths. These fairs promoted organic and community-made products, generating income for small producers. The "Songkhla Unity for Safe Food" event (September 23-24, 2024) further highlighted PSU's role as a hub for safe food distribution and community well-being.

GOOD HEALTH AND WELL-BEING

สุขภาพและความเป็นอยู่ที่ดี

Prince of Songkla University (PSU) actively supports SDG 3, which focuses on ensuring healthy lives and promoting well-being for all ages. Through its diverse faculties and collaborations, PSU implemented numerous initiatives aimed at improving health outcomes locally, nationally, and globally. This report highlights key activities and programs under SDG 3 during the academic year 2024.

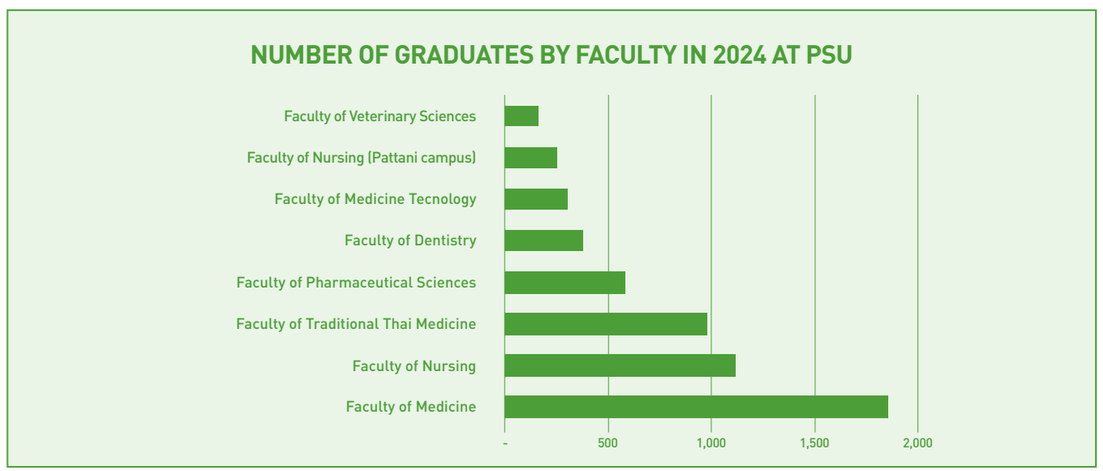
Services

As the leading educational institution in southern Thailand, PSU plays an essential role in providing education, research, and healthcare services. PSU is responsible for offering medical care, treatment, and disease prevention to students, staff, and the general public, particularly in the southern region, through various departments, including:

1. Songklanagarind Hospital, operated under the Faculty of Medicine
2. Thai Traditional Medicine Hospital, operated under the Faculty of Thai Traditional Medicine
3. Dental Hospital, operated under the Faculty of Dentistry
4. Medical Technology Service Center, operated under the Faculty of Medical Technology
5. Pharmacy Service (Mor Or Drugstore), operated by the Faculty of Pharmaceutical Sciences
6. Primary Health Care Service Center, operated under the Faculty of Nursing at Pattani Campus.

Students in Health Professions

PSU significantly contributes to the health workforce by producing graduates across various health disciplines. In 2024, the university graduated professionals in fields such as medicine, nursing, pharmaceutical sciences, dentistry, and veterinary sciences. For instance, the Faculty of Medicine consisted of 1,850 students, while the Faculty of Nursing at Hat Yai campus consisted of 1,113 students, all of whom are poised to make a positive impact on public health.



Collaborations and Health Services

PSU actively collaborates with health organizations at the local, national, and international levels to strengthen operational capacity, share resources, integrate public health measures and policies, and address complex cross-border health issues. These partnerships promote learning, innovation, and collective efforts toward sustainable well-being.

Local collaborations

The Faculty of Thai Traditional Medicine has partnered with local government and health units to promote community health and traditional medical services.

1. In collaboration with the Chalung Subdistrict Administrative Organization, Hat Yai District, Songkhla Province, the Faculty organized the Capacity Development Program for the Elderly – a hands-on workshop titled "Thai Massage for Community-based Elderly Health Care" for Village Health Volunteers (VHVs) on May 8, 2024.
2. The Community Health Promotion and Therapeutic Services Project, implemented with the Thung Tamsao Subdistrict Health Promoting Hospital and local VHVs, provided integrative health services, including Thai traditional diagnosis, therapeutic massage, herbal medicine distribution, and home visits for bedridden and elderly patients on September 24, 2024.

The Faculty of Dentistry has established national partnerships with local health agencies to promote oral health and enhance the quality of life for people in the southern region, as follows:

1. Khuanlang Municipality / Hat Yai District Health Office / National Health Security Office, Region 12 (MOU Period: 2023-2026)
2. Surat Thani Provincial Public Health Office (MOU Period: 2024-2027)
3. Phatthalung Provincial Administrative Organization (MOU Period: 2023-2026)

In addition, the Faculty of Dentistry signed a Memorandum of Understanding (MOU) with Songklanagarind Hospital, Faculty of Medicine, on November 29, 2023, under the project "Collaboration on Patient Referral and Care." The aim of this initiative is to develop an integrated patient care system within the university's health network. This partnership focuses on creating a safe and seamless referral system, developing a shared medical database, and facilitating professional knowledge exchange between physicians and dentists. Consequently, patients receive high-quality, comprehensive, and coordinated care with minimal redundancy. The project serves as a model for the PSU Health Network, exemplifying effective integration and collaboration between medical and dental units at PSU.

The Faculty of Nursing, Hat Yai Campus, has developed extensive networks with hospitals, municipalities, associations, and private sectors to promote health and holistic well-being. Major local collaborations include:

1. Khlong Hae Subdistrict Health Promoting Hospital
   Joint activities included outpatient counseling, mental health support, and referral documentation for continued care. The collaboration enhanced community mental health services, strengthened continuity of care, and provided experiential learning for nursing students.

2. Nurses' Association of Thailand, Southern Chapter
   To commemorate the 125th Anniversary of Her Royal Highness the Princess Mother, the Faculty organized the "125 Border Patrol Police Schools" project, training students in first aid and cardiopulmonary resuscitation (CPR). The initiative built lifesaving capacity and improved emergency preparedness in rural schools.
3. Rubber Innovation Research and Development Institute and Kho Hong Municipality
   A collaborative forum titled "Rubber Research and Innovation for Nursing" was held to promote the development of nursing innovations from natural rubber materials, linking local resources, scientific research, and nursing practice for sustainable health innovation.
4. The Andaman International Health Center Project at Vachira Phuket Hospital, Bangkok Hospital Phuket, and Mission Hospital (Phuket Province)
   Under the Andaman International Health Center Project, the Faculty created opportunities for nursing students to conduct clinical training and co-develop innovations with hospital partners. The project fosters regional workforce development and strengthens hospital-university collaboration.
5. Emotional Wellbeing for employees of Lee Gardens Plaza Hotel, Hat Yai
   The Faculty of Nursing conducted the "Mind-Body Relaxation through SKT Meditation Therapy" (Phase II) project to enhance hotel employees' emotional well-being and stress management using SKT (Samathi-Kaya-Tummo) meditation techniques. Participants reported improved mindfulness and mental balance.

The Faculty of Nursing, Pattani Campus, has signed MOUs with four local hospitals (Pattani Hospital, Somdejpraphrasangkharach (Sairi) Hospital, Yaring Hospital, and Yarang Hospital) to provide practical training and professional experience in Traditional Thai Medicine under a 372-hour Assistant Practitioner Training Program.

National collaborations

The Faculty of Medicine implemented the 7th Thai People's Health Status Survey Project (2024-2025) in collaboration with Ramathibodi Hospital (Mahidol University), the Health Systems Research Institute (HSRI), and government agencies nationwide. The project aims to assess health trends, chronic disease prevalence, and risk factors through interviews, physical examinations, and laboratory tests. For the southern region, 120 sample areas were surveyed across five provinces: Phang-Nga, Krabi, Phatthalung, Songkhla, and Pattani.

The Faculty of Medicine also integrates the United Nations' SDGs into its strategic plan, focusing on SDG 3 through hospital networks in the 12th Health Region to reduce maternal and infant mortality–the highest rates in Thailand's southern region. The faculty also promotes energy conservation, low carbon event standards, and waste management practices. Moreover, the Division of Family and Preventive Medicine provides comprehensive health survey services across 21 provinces with support from ThaiHealth and HSRI. Data collection covers 32,400 individuals aged one year and above, ensuring accurate insights into disease prevalence and health-risk behaviors.

The Faculty of Traditional Thai Medicine co-hosted the National Academic Conference on Thai Traditional Medicine (2021-2025) with Rangsit University, contributing expert reviewers and scholarly support.

The Faculty of Dentistry has entered into MOUs with national educational institutions and health organizations to promote health and enhance the quality of life of people in the southern region, including: Khon Kaen University (MOU Period: 2022-2027), the Thai Private Dentist Association (MOU Period: 2021-2026), the College of Dental Medicine, Rangsit University (MOU Period: 2023-2028), and Abhaibhubejhr Hospital (MOU Period: 2024-2029).

The Faculty of Nursing, Hat Yai Campus, in collaboration with the National Research Council of Thailand, the Thailand Air Sports Federation, and the Ministry of Higher Education, Science, Research and Innovation, organized an activity on the use of drone technology and innovation to promote health literacy among older adults and youth.

The Primary Health Care Center of the Faculty of Nursing, Pattani Campus, provides diagnostic, basic treatment, medical certification, and physical and mental health counseling services under Thailand's National Health Security Act.

International Collaborations

The Faculty of Dentistry maintains MOUs with 19 institutions across 11 countries, focusing on knowledge exchange, research collaboration, and academic excellence. This network has significantly expanded PSU's visibility and research capacity in oral health.

1. Faculty of Dentistry, University of Hong Kong
2. Tohoku University
3. Kyung Hee University School of Dentistry
4. Niigata University
5. School of Dental Medicine, University of Pennsylvania
6. Faculty of Dentistry, Andalas University
7. Coorg Institute of Dental Sciences
8. Faculty of Dentistry, University Syiah Kuala
9. Faculty of Dentistry, University Syiah Kuala
10. Faculty of Odonto-Stomatology, Can Tho University of Medicine and Pharmacy
11. Faculty of Dentistry, Sultan Agung Islamic University
12. Faculty of Medicine, Riau University
13. Faculty of Medicine, Foshan University
14. University of Health Science
15. Penang International Dental College
16. School of Stomatology, Kunming Medical University
17. School of Dentistry, International Medical University (IMU)
18. Saveetha Dental College and Hospital
19. The University of Sydney.

The Faculty of Nursing, Hat Yai Campus, established 14 international MOUs covering academic, research, and community service collaborations, including universities in Japan, Indonesia, China, Singapore, the UK, Canada, and Nepal.

1. School of Nursing, Faculty of Medicine, University of Miyazaki, Japan
2. Faculty of Medicine and Graduate School of Health Sciences, Tokushima University, Japan
3. Faculty of Nursing, Universitas Padjadjaran, Indonesia
4. Faculty of Nursing, Universitas Andalas, Indonesia
5. School of Nursing, Riau University, Indonesia
6. School of Nursing, Yunnan University of Traditional Chinese Medicine, P.R.China
7 Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, National University of Singapore, Singapore
8. University of Plymouth, United Kingdom, UK
9. GHM International Education Consultants, Nepal
10. Mohammad Natsir University of West Sumatera, Indonesia
11. Faculty of Nursing, Université de Montréal, Canada
12. School of Nursing, Guizhou Medical University, P.R.China
13. Faculty of Nursing, Universitas Syiah Kuala, Indonesia
14. Faculty of Nursing, Fukuyama Heisei University, Japan

In addition, the Faculty of Nursing, Hat Yai Campus collaborated with professors from the University of Lisbon, Portugal, under the EU-funded LEAN Project. The visit aimed to exchange knowledge and conduct interviews with faculty members, students, and elderly participants to enhance AAL geriatric education and integrate technology into the nursing curriculum.

Health Outreach Programmes

PSU delivers a wide range of outreach programmes and academic services aimed at improving community health and well-being. These initiatives cover areas such as hygiene, nutrition, family planning, exercise, elderly care, and mental health promotion. The University also extends health services to displaced and vulnerable groups within surrounding communities, as follows:

Faculty of Medicine, "PSU Neuro for Community" Project, this project addresses rare and complex neurological conditions by providing specialized outreach and diagnostic services to underserved populations.

Activity 1: *Triage for Acute Neurological Weakness in Na Thawi* Prison. Following reports of inmates presenting with acute weakness, a multidisciplinary team conducted on-site assessments, laboratory tests, and treatments. The condition was diagnosed as post-influenza polyneuropathy with folate deficiency. All patients recovered fully, and the case series was published in JHSMR Volume 39, Issue 2 (2021), pp.135-143.

Activity 2: *Familial Transthyretin Amyloid Polyneuropathy (FAP) Screening*. Genetic testing was performed in Satun Province, identifying eight new cases for ongoing monitoring at PSU Hospital.

Activity 3: *GNE Myopathy Outreach*. The team diagnosed multiple family members with hereditary myopathy, enabling coordinated long-term management.

Activity 4: *Huntington Disease Community Screening*. Screening in Khlong Hoi Khong District, Songkhla, identified additional carriers, with genetic testing offered to at-risk relatives.

Interprofessional Health Outreach Activities

Multidisciplinary collaboration across the Faculties of Medicine, Nursing, Dentistry, Medical Technology, Pharmaceutical Sciences, Traditional Thai Medicine, and Veterinary Science promotes interprofessional learning and enhances community engagement through projects such as:

1. PSU Academic Fair 2024: Provided interactive exhibits and hands-on experiments in laboratory sciences, blood testing, and public health education to over 1,000 visitors. Participant satisfaction averaged 4.82/5.
2. Mahidol Day and "Our Soul Is for the Benefit of Mankind" Project: A collaborative outreach initiative conducted on September 1, 2024, involving health screenings, disease prevention education, nutritional counseling, oral health promotion, and mobile veterinary services. Overall satisfaction: 4.93/5.
3. Medical Technology for Kho Hong Community Project (2024): Offered health screening, food safety testing, and rabies vaccination services. Activities emphasized the link between environmental sustainability and community health.

Other Key Health Promotion Initiatives

1. Oral Health Promotion for Children Aged 2-5 Years (FY2024) by Faculty of Dentistry: Conducted across seven provinces in the 12th Health Region, benefiting over 15,000 children through fluoride application, parental education, and caries prevention.
2 Southern Thailand Children's Network for Sugar-Free Initiative by Faculty of Dentistry: Implemented with ThaiHealth to reduce sugar consumption and promote healthy diets in 33 schools across seven provinces.
3. Executive Function (EF) Development Projects: The Faculty of Education, Pattani Campus, leads child development programmes integrating neuroscience-based EF training in collaboration with local schools, ONCB, and Mahidol University.
4. Holistic Health Promotion Activities: Encompass 50 sub-projects targeting early childhood, adults, and older adults, promoting physical, mental, and social well-being.

Shared sports facilities

PSU promotes physical and mental wellness among students, staff, and the public by sharing campus sports facilities. The Faculty of Medicine's Fitness Center offers:

1. Weight Training and Machine Zone: For strength and endurance enhancement.
2. Cardio Zone: Featuring treadmills, bikes, and elliptical trainers to promote cardiovascular health.
3. Class Zone: Group exercise and dance studios for all ages.
4. Outdoor Facilities: Synthetic turf football fields and badminton courts.

At the Faculty of Education, Pattani Campus, the Physical Education Building (Building 15) provides sports and recreation services to both students and the local community, open from 7:30 a.m. to 11:00 p.m., except on public holidays.

Sexual and Reproductive Health-Care Services

The Department of Obstetrics and Gynecology, Faculty of Medicine, provides comprehensive reproductive health services through gynecological and antenatal clinics, including after-hours and specialized services, all free of charge for students.

The Faculty of Education, Pattani Campus, offers free counseling services through the sex education course under the health education program. Similarly, the Faculty of Nursing, Pattani Campus, provides sexual and reproductive health services under the Primary Health Care Integration Project, including free distribution of condoms and oral contraceptive pills, and contraceptive counseling for students and surrounding communities.

Mental Health Support

Mental Health Support for Students

PSU offers accessible and confidential mental health support services for students through various faculties:

1. Department of Psychiatry, Faculty of Medicine: Provides free psychological counseling, psychotherapy, and workshops such as "Self-Development Based on the Enneagram Approach" and "Strategic and Solution-Focused Therapy."
2. Faculty of Dentistry: Offers mental health counseling both on-site (5th Floor, Building 3) and online via Zoom, with 16 students receiving 18 sessions in Academic Year 2024. Appointments are available through: https://calendly.com/dentpsu_mentalcare/phycologist_appointment

The Faculty of Dentistry, organized a preparatory camp for 4th-year dental students to develop emotional skills and self-management according to the Satir Model before beginning clinical practice with real patients. The camp activities included team-building exercises, reflective learning sessions, and group discussions, aiming to enhance emotional stability, self-awareness, and effective collaboration skills. A total of 52 participants attended the program, including faculty members, staff, and 4th-year dental students. The students reported increased confidence and a more positive attitude in preparation for entering the clinical stage of their training.

3. Faculty of Nursing, Hat Yai Campus: Conducts annual well-being programmes for fourth-year students, focusing on stress reduction, emotional resilience, and academic preparation.
4. Faculty of Education, Pattani Campus: Operates the Health Services and Wellness Promotion Division, coordinating with students, parents, and advisors to implement mental health programmes.
5. Primary Health Care Center, Pattani Campus: Provided free mental health counseling to six students in 2024.

Mental Health Support for Staff

The Department of Psychiatry, Faculty of Medicine, provides academic counseling, psychotherapy, and outreach services promoting staff mental health through initiatives such as:

1. *"Happy Family" Project (Sept 26-27, 2024):* Strengthened family relationships and prevented substance abuse among psychiatric staff.
2. *"Skill Enhancement and Empowerment for Volunteers in Psychiatric Patient Care from Hospital to Community"* (Oct 30-Nov 1, 2024): Improved community-based psychiatric care through volunteer training.

The Faculty of Dentistry prioritizes staff well-being through:

1. "Happiness: A Close Friend of Success" Seminar (Feb 6, 2024), fostering positivity and stress reduction (255 participants).
2. Mental Health Care Program for Staff (February-September 2024), This program provided a structured appointment system for psychological counseling at no cost. A total of 5 staff members received services, enabling them to access safe, private, and continuous mental health support. Individualized guidance was provided by qualified specialists, ensuring tailored recommendations for each participant.
4. Merit-Making and Du'ā' Prayer Ceremony (19 December 2024), enhanced morale through interfaith cultural activities.
5. "Basic Satir Workshop for Self-Development" Project (21-23 November 2024), improved emotional awareness and constructive communication.
6. "How to Deal with Difficult Students by Satir Model" Project (21-23 August 2025), strengthened empathetic communication and stress management for lecturers.

The Faculty of Nursing, Pattani Campus, also provides mental health consultation for staff through its Primary Health Care Center at a service rate of 250 THB per session.

Smoke-free Policy

In the year 2023, PSU has announced the policy on protecting non-smokers' health in buildings and public areas. Moreover, the Faculty of Nursing, Hat Yai campus in partnership with the Thailand Nursing and Midwifery Council, integrates anti-smoking activities into the community practicum course, requiring nursing students to counsel at least one smoker. The "Army Youth Smoke-Free Motivation" project raises awareness of tobacco hazards and encourages cessation.

At the Faculty of Nursing, Pattani Campus, the "Safe Educational Institutions, Smoke-Free Thai Society" initiative promotes anti-smoking awareness through lectures, video competitions, and poster campaigns.

The Faculty of Medicine also implements the "No Cigarettes/E-cigarettes" campaign, creative media contests, and adherence to Thailand's National No-Smoking Policy for Medical Students, aiming to:

1. Promote a 100% smoke-free student culture.
2. Prevent new smokers among medical students.
3. Support cessation efforts.
4. Foster leadership in tobacco control.
5. Encourage societal behavioral change.

Research Outputs Related to Good Health and Well-being

SDG 3 (Good Health and Well-being) aims to ensure healthy lives and promote well-being for all. In 2024, PSU's faculties produced research outputs that align with SDG 3 objectives. For examples,

Faculty of Dentistry, three notable studies include:

1. Wongsuwanlert, M., Teanpaisan, R., Pahumunto, N., Kaewdech, A., Ruangsri, P., & Sunpaweravong, S. (2024). Prevalence and virulence factors of Helicobacter pylori isolated from oral cavity of non-disease, gastritis, and gastric cancer patients. Journal of Dental Sciences, 19(2), 1036-1043.
2. Amanat, M. U., Sriplung, H., & Kerdpon, D. (2024). Oral cancer epidemiology in relation to inter-country disparities in human development in south and Southeast Asia. Community Dentistry and Oral Epidemiology, 52(4), 479-486.
3. Sukotjo, C., Koseoglu, M., Suwannasin, P., Yuan, J. C. C., Park, Y. S., Johnson, B. R., ...& Tekian, A. (2024). Assessing methodological quality in dental education research using MERSQI: Analysis of publications from two journals. Journal of Dental Education, 88(6), 786-797.

Faculty of Traditional Thai Medicine collaborated with Star Home Beach Resort Co., Ltd. under the PSU-La Vita Sana Project to develop registered herbal products:

1. *Herbal Compress (Reg. No. G 358/67):* Turmeric-based formulation for muscle pain and circulation improvement.
2. Herbal Foot Soak (Reg. No. G 247/68): Stimulates circulation through reflexive herbal therapy.

Faculty of Nursing, Hat Yai Campus produced nursing and health research publications across life spans, for example:

1. Latifah Jehloh, Praneed Songwathana, & Luppana Kitrungrote. (2024). Transitional Care Based e-health Program for Older Muslim Thai Adults with Chronic Obstructive Pulmonary Disease After Hospital Discharge: A feasibility study. Pacific Rim International Journal of Nursing Research,28(1), 103-115.

2. Yodchai, K., Hubjaroen, S., Maneekrong, K., & Uthaipan, N. (2024). The Efficacy of Chemo-cooling Gloves in Preventing Nail Toxicity Among Thai Women Undergoing Chemotherapy: A quasi-experimental study. Pacific Rim International Journal of Nursing Research, 28(3), 619-631.
3. Kongsuwan, W., Galverz, B., & Betriana, F. (2024). Aesthetics in Nursing Practice as Experienced by Children During Hospitalization in the Philippines: A phenomenological study. Advances in Nursing Science, 47(3), 248-262.
4. Ganefianty, A., Songwathana, P., Damkliang, J., Imron, A., & M. Latour, J. (2024). A Mobile Health Transitional Care Intervention Delivered by Nurses Improves Post discharge Outcomes of Caregivers of Patients with Traumatic Brain Injury: A Randomized Controlled Trial. Neurosurgery Nursing, 184, 191-201.
5. Samabub, S., & Chunuan, S. (2024). The Effects of a Motivational Enhancement and Educational Program on Cervical Cancer Prevention Behaviors, Anxiety and Rate of Follow-Up Colposcopy Among Women with Abnormal Pap Test. Thai Journal of Nursing and Midwifery Practice, 11(2), 117-134
6. Intasorn, A., Kala, S., & Youngwanichsetha, S. (2024). Development of a Self-efficacy in Breast Milk Expression Promoting Program for Cesarean Mothers with Gestational Diabetes Mellitus: A Pilot Study. Thai Journal of Nursing and Midwifery Practice, 11(1), 81-96.
7. Junseng, J., Nukaew, O., & Kongsuwan, V. (2024). The Development of a Clinical Nursing Practice Guideline for Patients with Psychiatric Disorders Undergoing Modified Electroconvulsive Therapy. Journal of Research in Nursing-Midwifery and Health Sciences, 44(2), 16-28.
8. Puttapraseart, M., Nukaew, O., & Chanchong, W. (2024). The Effect of Self-Care Enhancing Program on Self-Care Behaviors of Persons with Major Depressive Disorders. Journal of Research in Nursing-Midwifery and Health Sciences, 41(1), 66-78.
9. Datae, A., Perngmark, P., Boonyasopun, U. (2024). Effects of a Family Participation Promotion Program on Meditation Adherence in Muslim Elderly Patients with Myocardial Infarction: A Pilot Study. Princess of Naradhiwas University Journal, 16(3), 38-62.

4 QUALITY EDUCATION

PSU PRINCE OF SONGKLA UNIVERSITY | SUSTAINABILITY REPORT 2024

4 QUALITY EDUCATION

QUALITY EDUCATION

การศึกษาที่เท่าเทียม

Prince of Songkla University (PSU) positions education as the driving force of sustainable development, reflecting its vision of “Driving sustainable development at the forefront of the world.” PSU is committed to advancing Sustainable Development Goal 4 (SDG 4), which calls for inclusive, equitable, and quality education along with lifelong learning opportunities for all. Through its lifelong learning policy, literacy development in children and youth, competency-based capacity building, academic services, community engagement, and global partnerships, the university has developed initiatives that promote social equity and foster sustainable growth. This report highlights PSU’s leadership in driving SDG 4, underscoring its role as the university of values and a commitment to promoting quality education, inclusivity, and sustainable human development.

Lifelong Learning Policy Framework and Initiatives

As a leading institution of higher education, PSU embraces lifelong learning as central to its vision: “Driving sustainable development at the forefront of the world.” With this commitment, PSU has established its Lifelong Learning Policy, in line with the Prince of Songkla University Act, B.E. 2559 (2016).

PSU is dedicated to expanding access to learning opportunities that are inclusive, fair, and equitable. Each campus functions as a learning hub, offering external participants access to university resources, accredited programs, and short-term training. PSU's Education and Innovative Learning Academy (EILA) oversees the university's online lifelong learning programs, which include Massive Open Online Courses (MOOCs), offering micro-credentials, and access to research databases through the PSU LibX application and the Online Public Access Catalog (OPAC) for flexible, and diverse learning opportunities, accessible to students and the general public. In addition to online learning, PSU also offers a range of onsite learning opportunities and resources for all. These include specialized libraries, such as the Khunying Long Athakravisunthorn Learning Resources Center, which provides digital resources, study rooms,

and 24-hour access. The university also houses the Digital Publishing and John F. Kennedy Library and the Princess Maha Chakri Sirindhorn Natural History Museum for public access. For those interested in cultural studies, Princess Galyani Vadhana Institute of Cultural Studies serves as a center for academic tourism and houses a collection of knowledge about the southern region of Thailand. In addition, the Southern Center for the Professional Development of Teachers, Administrators, and Educational Personnel serves as a center of excellence for continuing professional development of teachers and educators and well as learners at all age groups in the South of Thailand. Moreover, the University as well as various groups of PSU alumni offer annual grants for educational opportunities of qualified students. For examples, the PSU Ton Kla scholarship and the Muslim Club Alumni enhanced educational opportunities of many students from and beyond the local area.

Development of Learning Competencies for Children and Youth

PSU thrives to be a leader in human development especially among children and youth and is determined to promote whole person development for children in the region. This is evident in the university's countless efforts and projects that aim to enhance various kinds of skills and abilities of children and youth. This shared aim is reflected not only at the policy levels but also at the course development process which involves community service for the local children as part of course activities.

The Faculty of Education, PSU Primary Demonstration School and PSU Secondary Demonstration School are positioned as the excellence units for child and youth development of of the region. Their achievements cover a wide range of competencies such as academic excellence, sport competence and behavioral standards. For instance, the students won a golden medal from Dance Sport in the National Youth Game 2024 and a silver medal from Global English Language Olympiad of Southeast Asia (GELOSEA). In addition, a representative from PSU PDS received the National Youth Award with a token of recognition from the Minster of Education. With their exemplary reputation, they have continuously been serving the community through various educational innovations, academic services, supervision and support.

Competency development for children and youth is valued by the whole PSU community. This is clearly reflected through efforts and initiatives by all PSU affiliates to enhance learning competencies of the juvenile from various backgrounds and locations throughout the southern region. For instance, PSU Pattani Campus in partnership with other institutions in the area organized the Pattani Education Sandbox 2024 to raise the quality of schools in the educational innovation area of Pattani Province. For the youth, PSU Hat Yai Campus hosted a Science Camp to develop future leading scientists for the country. Likewise, PSU's Center for ASEAN Study organized the "ASEAN Youth Volunteerism for SDGs" project to enhance volunteerism and meaningful learning for sustainability. Capacity building for school administrators, teachers, community leaders, and parents in the region on developing Executive Functions (EF) in early childhood is a high-impact initiative which seeks to create happy and responsible kids who will be active and respectful citizens of the future.

Education Networks for Employability

PSU puts an emphasis on integrating career development into its academic programs, fostering a strong connection between theoretical knowledge and practical application. Through various initiatives, PSU equips students with the necessary skills and competencies to succeed in the professional world and contribute to societal development.

PSU has partnered with various institutions to enable cooperative and work-integrated education (CWIE) programs. Forn instance, PSU collaborated with CP All Public Company Limited to develop a program which bridges the gap between academic learning and real-world employment, equipping students with the competencies and skills that meet societal needs while supporting lifelong learning in practice.

In addition, the university has introduced an innovative program in Smart Electronics for the Electric Vehicle Industry, which prepares future generations for emerging industries. This initiative not only expands

educational opportunities but also contributes to sustainable development by strengthening vocational skills and fostering economic growth.

PSU also fosters entrepreneurship by supporting SMEs, technology startups, and market innovators. Alumni and private-sector partners are encouraged to reinvest their knowledge and resources into their communities, ensuring that innovation translates into tangible social and economic benefits.

In the field of education, Faculty of Education, PSU has signed a Memorandum of Understanding with hundreds of schools in the South of Thailand for the support and collaboration on pre-service teachers' internship and professional development and in-service teachers' continuing professional development of the students and teachers in the area.

Commitment to Quality Education and Global Engagement

PSU places strong emphasis on advancing the quality of education and future-oriented learning through continuous enhancement of academic standards and the creation of scholarly platforms. The 12th PSU Education Conference provided a stage for sharing experiences on sustainable education, while the Southern CWIE Forum 2024 highlighted the integration of learning with work. At the same time, PSU has advanced its academic information systems, with the PSU Knowledge Bank achieving the CoreTrustSeal (CTS) certification as a trusted digital repository. Furthermore, four programs have been accredited at the ASEAN level under the AUN-QA framework, reaffirming PSU's role in promoting academic standards and educational excellence.

In advancing knowledge and inspiration, the University, in collaboration with the IPF Foundation, hosted Nobel Laureate lectures in medicine, economics, and chemistry, delivering world-class insights to Thai society. At the same time, it partnered with Huawei to establish an ICT Innovation and Talent Development Center, enhancing educational capacity in the Asia-Pacific. Students also showcased creativity and entrepreneurship by winning all categories at the Startup Thailand League 2024.In terms of life skills, financial management training was introduced to prepare students for sustainable futures. The University further celebrated outstanding achievements, with PSU Pattani students winning the 13th Excellence in Higher

Education Learning Management Contest, receiving the Royal Trophy from Her Royal Highness Princess Maha Chakri Sirindhorn, and staff earning 11 awards at the Academic Works Exhibition. These accomplishments highlight the University's strong commitment to academic quality at both individual and institutional levels.

Academic Services for Community Engagement and Societal Development

Ensuring quality and equitable education is at the heart of PSU's mission as a leading higher education institution in Southern Thailand. Through a wide range of academic services, PSU works to guarantee that people from diverse backgrounds, including vulnerable groups in need of special support, can fully benefit from education that empowers individuals and strengthens communities.

PSU Open Week annually welcomes thousands of students and interested people from all walks of life to PSU at all campuses to join in a wide range of academic services such as health-and well-being, academic seminars, job-related trainings, academic competitions, and digital and technology. This is indeed a reflection of the university's strong connection and engagement with the community.

Another notable example of PSU's vison to be the university of values is the "Wisdom Library" Project, established in collaboration with the Songkhla Provincial Prison, which enables inmates to access books and information resources. This initiative creates learning opportunities for individuals whose lives are otherwise constrained, yet who still retain the right to knowledge, skill development, and reintegration into society with dignity–truly embodying the principle of Education for All.

With strong determination, PSU advances education as a transformative force through its integrated commitment to lifelong learning, research and innovation, community engagement and collaboration. By promoting equitable access, fostering knowledge creation, and enhancing societal resilience, PSU exemplifies the role of higher education in driving sustainable human development at local, national, and global levels.

5 GENDER EQUALITY

GENDER EQUALITY

ความเท่าเทียมทางเพศ

Recruitment Policy

Prince of Songkla University (PSU) has established recruitment and selection procedures aligned with clearly defined criteria for all positions. The selection process is conducted transparently, without any discrimination based on gender, religion, institution, or nationality. The university promotes multiculturalism and is committed to providing equal opportunities for both staff and students, in accordance with its non-discrimination and anti-sexual-harassment policies.

PSU has assigned the Ethics Committee to oversee, investigate, and implement disciplinary measures related to professional ethics and sexual harassment cases, ensuring accountability and fairness. The university places strong emphasis on diversity and inclusion, striving to eliminate all forms of discrimination related to race, origin, socioeconomic status, religion, disability, age, sexual orientation, gender identity, political belief, or any other differences.

Gender Equality at PSU

PSU has implemented strict measures against verbal, physical, visual, and technological harassment, including sexual, psychological, social, and spiritual harassment, as well as any behaviors that undermine human dignity. All staff members are treated equally in terms of rights and freedoms, particularly the right to pursue personal happiness.

The university operates on the principle that all genders must be treated equally, with equal access to opportunities and protection. PSU provides counseling and psychological therapy services for students across all five campuses. In the academic year 2024 (2567 B.E.), a total of 304 students received counseling services, 67 male and 237 female.

Employment practices ensure non-discrimination in salaries, leave entitlements, welfare, and other benefits. Female staff and students are also given equal opportunities to hold administrative and leadership positions. In 2024, PSU had 9,339 newly enrolled students, of whom 6,157 (65.93%) were female. The total number of staff (academic and supporting personnel) was 12,673, including 8,791 women (69.37%). Among 157 senior executives, 54 (34.39%) were women, reflecting PSU's commitment to balanced leadership representation.

Additionally, PSU has authorized students to wear uniforms that reflect their gender identity.

To further support LGBTQ+ students, PSU has implemented a new dress code policy. On May 5, 2021, during the 5th University Executive Committee meeting, PSU considered a draft announcement under the Gender Equality Act of 2015. The university adopted the "Prince of Songkla University Announcement on Dress Code Practices for Students According to Gender Identity or Gender Expression" effective from May 29, 2021.

Students have praised PSU for recognizing the importance and needs of the LGBTQ+ community. This initiative is seen as a positive step toward achieving equality and reducing social discrimination, reflecting a more open and inclusive society.

PSU Pride

The PSU Pride Initiative, led by the Faculty of Medicine, PSU, in collaboration with Songklanagarind Hospital, the National Health Commission Office (NHCO), and Regional Health Office 12, represents a transformative model of inclusive healthcare and social empowerment for transgender and gender-diverse communities in Southern Thailand. The program integrates evidence-based medical care, policy development, education, and community engagement to promote equality, dignity, and access to quality health services.

Number of Senior Academic and Administrative Staff

Position	Male	Female	Total
Professor	40	18	58
President	1	-	1
Vice President	11	5	16
Dean	22	13	35
Director of Office/Division	9	3	12
Assistant to the President	20	15	35

PSU's Support for LGBTQ+ Rights and New Dress Code

PSU recognizes the importance of LGBTQ+ rights, as evidenced by its policies supporting gender equality and allowing students to dress according to their gender identity. The university has installed gender-neutral restrooms in response to student requests and has removed gender prefixes from student ID cards and photographs.

At its core, the multidisciplinary PSU Pride team, comprising endocrinologists, gynecologists, pediatricians, psychiatrists, surgeons, nurses, and social partners, provides holistic transgender healthcare through the PSU Pride Clinic at Songklanagarind Hospital. The clinic offers comprehensive assessment, safe hormone therapy, psychiatric consultation, and gender-affirming surgeries, while also supporting family-inclusive adolescent care.

Beyond hospital walls, PSU Pride advances equality through community-based outreach programs that deliver health check-ups, education, and safe-transition workshops in partnership with Southern transgender networks. These activities enhance health literacy, reproductive awareness, mental well-being, and inclusive communication within diverse communities

The program's social responsibility dimension includes the Trans Women Military Exemption Support Program, which annually assists transgender women in obtaining gender identity certificates during the national military draft process, ensuring dignity, safety, and legal recognition. PSU Pride also supports research innovation through the establishment of advanced laboratory investigations such as LC-MS/MS to strengthen precision in hormonal and biochemical testing for transgender health.

To ensure continued engagement, PSU Pride has developed a LINE-based community consultation platform managed by nursing professionals, offering ongoing guidance, mental health support, and counseling for transgender individuals and their families. This digital engagement model expands accessibility, fosters trust, and strengthens community connectedness beyond clinical settings.

CLEAN WATER AND SANITATION

การจัดการน้ำและสุขาภิบาล

Water Management Policy

PSU has established a wastewater management policy in accordance with the National Environmental Quality Promotion Act. The objective is to manage wastewater efficiently and hygienically, ensuring that wastewater treatment within the university complies with the Ministry of Natural Resources' announcement on wastewater discharge standards from certain types and sizes of buildings, dated December 29, 2005.

The university's wastewater management policy is hereby announced as follows:

1. Repair and Maintenance: The wastewater treatment systems in damaged buildings such as classrooms, offices, and residences within the university must be repaired to ensure normal functioning.
2. New Building Requirements: All new buildings that request budget or undergo renovation must include a preliminary wastewater treatment system before discharging into the university's sewer system. The discharged water must meet the prescribed quality standards.
3. Monitoring and Control: There must be continuous monitoring and control of wastewater from all departments, including treated wastewater.
4. Reuse of Treated Water: The university supports the reuse of treated wastewater for purposes such as watering plants within the university.
5. Research and Innovation: The university encourages and promotes research and innovation in wastewater management.

Reservoir within the university

PSU, Hat Yai Campus, has a reservoir within the university with a capacity of **437,500 cubic meters.** It is used for storing water for consumption, serving as a raw water reserve for producing tap water, and helping prevent floods during the rainy season. The reservoir also serves as a recreational area for staff, students, and the general public for relaxation and exercise. Additionally, the university has constructed another reservoir with an overflow dam system to store water for use and to help slow water flow, preventing it from flooding nearby areas. This new reservoir, with a capacity of **35,000 cubic meters,** is located in the extended area of Thung Yai, Thung Yai Subdistrict, Hat Yai District, Songkhla Province.

PSU Water Distribution Station

In 2024, the construction of the PSU Water Distribution Station has been completed. This high-pressure water distribution station delivers water from the Provincial Waterworks Authority to the Thung Yai extension area for consumption and usage. The water distribution pipeline spans approximately 10 kilometers, passing through the Thung Ngai village and Thung Yai village communities. As a result, residents within the radius of the water pipeline benefit from using tap water provided by the Provincial Waterworks Authority.

Water Quality Monitoring

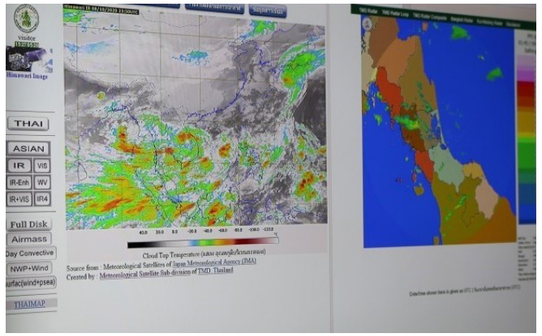
At PSU, water quality is regularly monitored in accordance with the standards of the Provincial Waterworks Authority, while wastewater quality is inspected following the Ministry of Natural Resources and Environment's standards for wastewater discharge control from certain types and sizes of buildings.

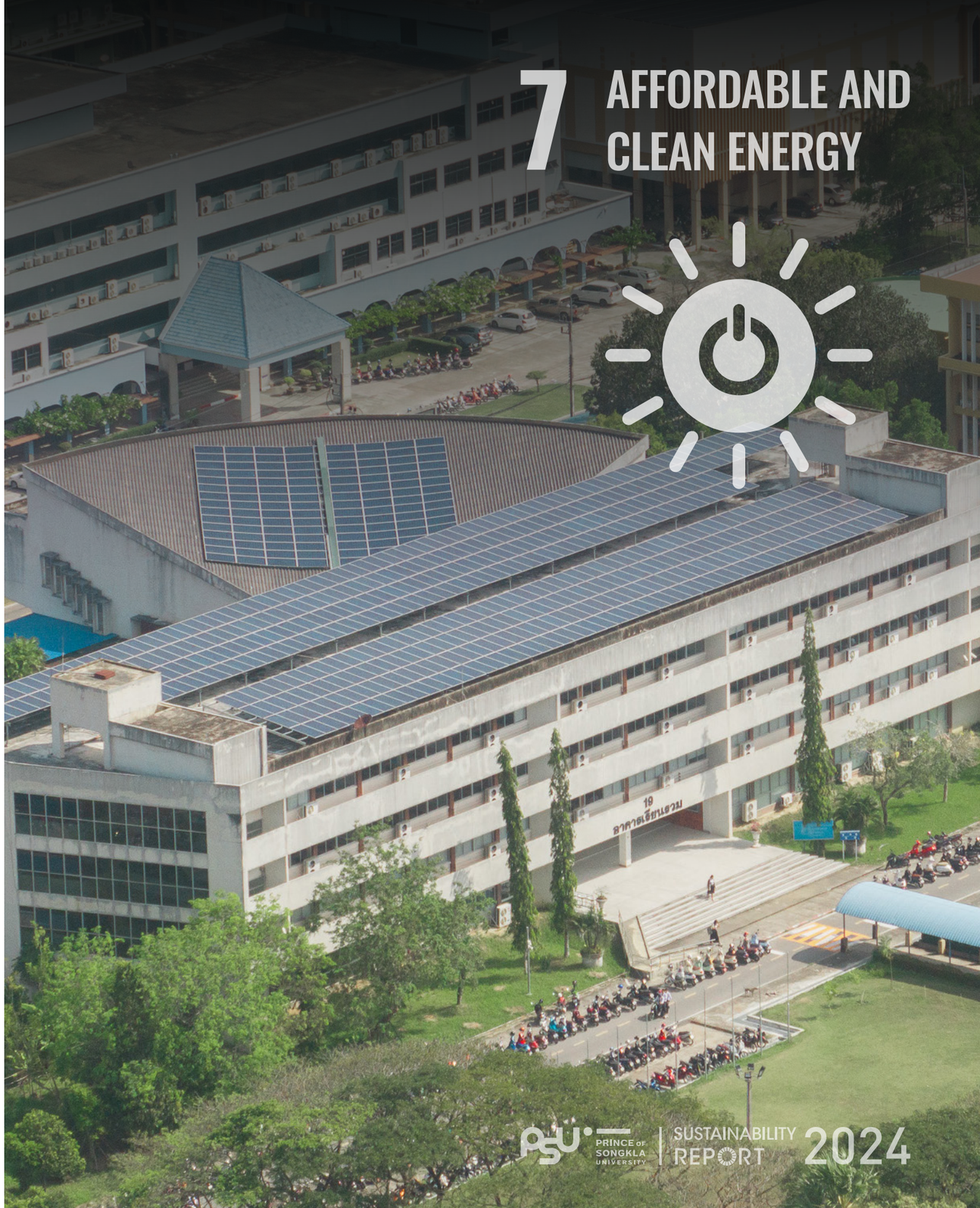
An IoT-based system is employed for preliminary water quality monitoring. For wastewater management, the university operates a centralized treatment system using the Sequencing Batch Reactor (SBR) process, along with an Aerated Lagoon system. After initial treatment, all wastewater is further processed through a Stabilization Pond to improve water quality, ensuring that the Biochemical Oxygen Demand (BOD) level does not exceed 20 milligrams per liter, as required by law, before being discharged.

Additionally, the treated wastewater is reused for irrigation purposes, such as watering trees and maintaining lawns within the campus area.

Strong Hat Yai Fighting Floods

PSU, through the Southern Natural Disaster Research Center, in collaboration with the Songkhla Province Network, organized the 15th annual seminar “Hat Yai Resilience: Fighting Floods Forum 2024” under the theme “Uniting Hat Yai Against Floods for Sustainable Awareness”. The main objectives of this seminar were to prepare for flood management in Songkhla Province, to emphasize the importance of reducing risks to manage, adapt to, and resolve flood issues holistically, and to facilitate the exchange of knowledge between government agencies, the private sector, and the public. Furthermore, the Research Center and its partners recognized the issue of water scarcity due to climate change, aiming to raise awareness and encourage preparedness for adaptation among all sectors in Songkhla Province.





AFFORDABLE AND CLEAN ENERGY

พลังงานสะอาดที่ทุกคนเข้าถึงได้

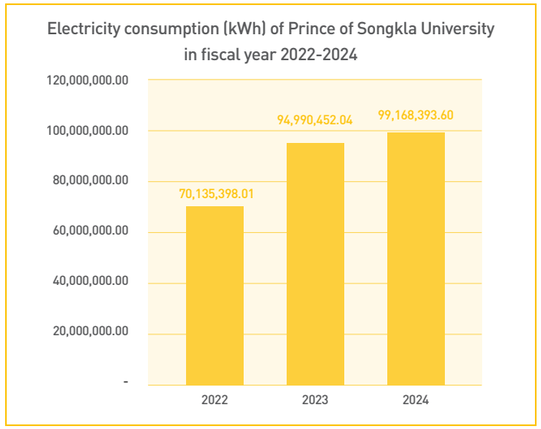
Related Policies

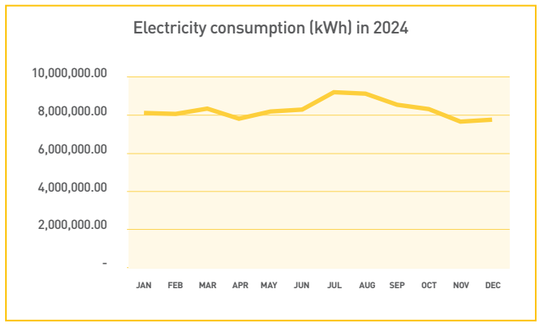
Prince of Songkla University (PSU) has established policies to promote energy conservation and efficient energy use, including:

1. Net Zero Greenhouse Gas Emissions Policy: The university promotes activities to reduce both direct and indirect greenhouse gas emissions. This includes improving energy efficiency, reducing fossil fuel consumption, increasing the use of clean and renewable energy sources to minimize pollution and greenhouse gas emissions, and divesting from entities heavily reliant on coal and oil.
2. Energy-Efficient Building Improvement or Construction Policy (2023): This policy aims to encourage and guide university departments to use energy and resources efficiently and sustainably. It emphasizes designing buildings with good ventilation, utilizing natural wind and sunlight, and choosing environmentally friendly construction materials to minimize environmental impact.

Energy Consumption at PSU

In 2024, PSU consumed a total of 99,168,393.60 kWh of electricity, which represents an increase of 4.21% compared to 2023. The highest electricity usage was observed from July to September.

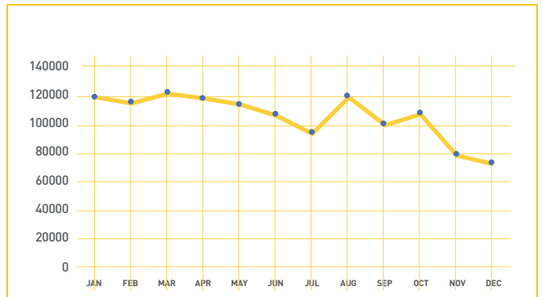




Use of Renewable/Alternative Energy

In 2024, the university generated 1,272,940.19 kilowatt-hours of electricity through solar rooftop systems installed on university buildings. This initiative helped the university save approximately 5,868,254.28 baht in electricity expenses. The solar power system installation began in 2019 and continues to operate efficiently to the present. The university is currently expanding solar power generation projects across all five campuses, demonstrating its strong commitment to the sustainable use of clean and renewable energy.

Graph of Electricity Produced from Solar Cells



Collaborative Actions and Partnerships

Electric Vehicle (EV) Collaboration

The Faculty of Engineering signed an MOU with the Electric Vehicle Association of Thailand and P.G. Inter Group Co., Ltd. to advance research and innovation in electric vehicle (EV) technology. This partnership supports the development of EV-related innovations to reduce urban pollution, improve transport efficiency, and strengthen Thailand's EV industry for sustainable growth.

Carbon Credit Initiatives in Pattani

PSU Pattani Campus collaborates with Pattani Province and related stakeholders to establish a framework for carbon credit management, focusing on renewable energy adoption, waste management, forest planting, and community awareness to reduce greenhouse gas emissions.

Smart Electronics for EV Industry

The Department of Electrical and Biomedical Engineering, PSU, in collaboration with Toyota Tsusho Nexty Electronics (Thailand) Co., Ltd. and Toyota Tsusho Denso Electronics (Thailand) Co., Ltd., launched a joint curriculum for Smart Electronics in the EV Industry. The program aims to produce highly skilled graduates capable of supporting Thailand's goal to manufacture 1.2 million EV and hybrid vehicles by 2036, strengthening the national clean energy economy.

Innovative Clean Energy Solutions

Electric Boat for Sustainable Transport

The PSU EV Innovation Center developed a clean-energy electric boat propulsion system using 6/10 kW motors (3,800-6,000 RPM) and a 72-volt, 4.2 kWh battery. This eco-friendly system reduces water and noise pollution, extends vessel lifespan, and significantly cuts maintenance and fuel costs.

Solar-Powered Mobile Water Filtration Unit

The Faculty of Science and Technology, PSU Pattani, designed a solar-powered mobile water filtration system using RO and UV disinfection technologies. It produces 120 liters of clean water per hour, providing safe drinking water for up to 60 households per day, particularly useful during flood emergencies.

Solar-Powered Rescue Boat with Wi-Fi and Battery Charging

PSU Pattani developed a solar-powered rescue boat equipped with Wi-Fi connectivity (30-meter radius), CCTV, and solar-charged batteries capable of powering 12 mobile devices for 4-6 hours. This innovation enhances emergency communication and power access in flood-prone areas.

Campaigns for Clean Energy Transition

Electric Scooter Sharing

PSU Pattani, in partnership with Thai Personal Mobility Co., Ltd., launched an electric scooter sharing project (GCOO) with 50 scooters available around campus. The initiative promotes clean, safe, and eco-friendly transportation while reducing carbon emissions.

Electric Bus for Campus Transportation

PSU introduced fully electric buses (EV buses) donated by Haad Thip Public Co., Ltd. for campus commuting. These vehicles support PSU's efforts to reduce carbon emissions and promote sustainable mobility.

BlueTS Tracking System

PSU developed the BlueTS system, a digital platform for tracking electric vehicles within campuses to optimize route efficiency and encourage EV usage.

Green Office Initiative

PSU Pattani launched its Green Office Project (Phase II) under the concept of "Sustainable University through Environmental Awareness".

The initiative aims to reduce energy consumption, minimize waste, and promote resource efficiency. It also fosters environmental awareness among staff and students, preparing for national-level Green University certification for the second consecutive year. This contributes directly to global climate action by reducing carbon emissions and promoting institutional sustainability.

8 DECENT WORK AND ECONOMIC GROWTH

DECENT WORK AND ECONOMIC GROWTH

งานที่มีคุณค่าและ การเติบโตทางเศรษฐกิจ

Employee Welfare

Prince of Songkla University (PSU) ensures fair treatment for all university employees and staff, totaling 12,673 persons in 2024. All personnel receive remuneration in line with Thailand's minimum wage standard, guaranteeing a good quality of life. Every employee has a formal written employment contract, ensuring legal protection and clear employment terms.

The University provides a comprehensive range of welfare benefits aimed at enhancing employees' well-being, stability, and motivation. These include basic health benefits, savings and financial security schemes, educational assistance for employees' children, and elderly care and occupational health support. In recognition of employees' dedication to PSU's development, the University also confers honorary awards, including recognition for outstanding academic achievements, long-term service, and other exemplary contributions.

Fair and Equitable Employment Practices

PSU upholds the principles of equality, non-discrimination, and diversity in all aspects of employment. The University strictly complies with national and international laws governing labor rights, data protection, and the prevention of child labor, forced labor, or human trafficking. Equal pay for equal work is a core policy.

PSU implements strict measures to address discrimination and sexual harassment, ensuring a safe and inclusive work environment. Employees and members of the public may submit complaints or appeals related to violations of rights, laws, or university regulations. Designated committees, such as the Grievance Committee and Appeal Committee, handle these cases transparently to safeguard individual rights and freedoms.

Work-Integrated Learning and Cooperative Education (CWIE)

PSU promotes real-world learning experiences through cooperative and work-integrated education (CWIE). Undergraduate curricula have been revised to align with the 10 S-curve targeted industries and PSU's five strategic objectives (5 SOs). These programs are jointly developed by the University and industry partners from government, private, and community sectors to ensure graduates possess job-ready competencies.

Students are required to complete at least one full-semester cooperative placement (16 weeks). PSU provides pre-placement training in both hard skills and soft skills.In Academic Year 2024:

- 2,736 students completed domestic placements.
- 41 students participated in international placements.
- 1,611 domestic organizations and 29 international organizations collaborated with PSU on CWIE programs.

Supporting Micro-Entrepreneurs and Student Enterprises

PSU promotes entrepreneurship by providing spaces for students, alumni, and staff to sell products, exchange knowledge, and build business networks across all five campuses. In Academic Year 2024, PSU organized two major events:

- PSU Bazaar on Ground #4 (21-23 June 2024) – over 60 vendors participated, generating 1 million THB in sales.
- PSU Bazaar on Ground #5 (14-16 February 2025) – over 40 vendors participated, generating 1.5 million THB in sales.

These initiatives create entrepreneurial opportunities and strengthen community ties
among PSU students and alumni.

Academic Collaboration for Workforce Development

In 2024, PSU signed Memoranda of Understanding (MOU) with Electricity Generating Authority of Thailand (EGAT). Joint projects emphasize sustainable development through four key areas:

- Development of local plants and herbs to add value and income for communities.
- Promotion of health and wellness tourism.
- Human resource development in local communities.
- Effective management of health-related products and services.

Digital Coach Development and Community Empowerment

PSU, in collaboration with the Electronic Transactions Development Agency (ETDA) and the Friends in Need (of "Pa") Volunteers Foundation, Thai Red Cross Society, launched a project to build digital community coaches in southern Thailand. These coaches serve as intermediaries between central agencies and communities, providing knowledge, advice, and digital literacy training.

In 2024, the program supported nine target communities in southern Thailand through training in online marketing, digital sales platforms, and product packaging design.

Target communities include:

1. Agricultural Product Enterprise, Nakhon Si Thammarat
2. Khlong Yan Watershed Conservation Network, Surat Thani
3. Friends in Need Community Warning Network, Khlong Sa Subdistrict, Surat Thani
4. Friends in Need Community Warning Network, Ban Pak Chuat, Surat Thani
5. Ban Rak Chaloem Phra Kiat, Nakhon Si Thammarat
6. Sustainable Farmer Livelihood Development Group, Yala
7. Wannee Krajood Handicraft Enterprise, Phatthalung
8. Tan Tanod Honod-Na-Le Community Enterprise, Phatthalung
9. Women's Community Enterprise, Hua Khao Subdistrict, Songkhla

The project addressed specific needs identified through community interviews and classified training into two focus areas:

- Online sales and marketing development (4 communities)
- Packaging and branding development (5 communities)

Development Focus Based on Community Needs:

- Development of sales channels and online marketing for 1 community.
- Development of packaging and branding for 5 communities.

INDUSTRY, INNOVATION AND INFRASTRUCTURE

อุตสาหกรรม นวัตกรรม และโครงสร้างพื้นฐาน

PSU Science Park

Prince of Songkla University (PSU) is the primary university in Southern Thailand, established with the objective of developing the region through advancements in education in fields related to the South, as well as the development of industries that are vital to the country's economic system. PSU possesses strong research capabilities, recognized as one of the leading research institutions in the country.

The PSU Science Park serves to bridge the gap between university research and its application in the industrial sector, offering infrastructure and services that support innovation-driven business operations. The park focuses on innovation in areas such as rubber, agriculture and biotechnology, food, medicine and health, energy, and digital technology. It aims to encourage private sector investment in research and development, utilizing resources, knowledge, and public sector research infrastructure for maximum benefit.

The PSU Science Park connects with the regional economy to support the creation of sustainable technology-based entrepreneurs. It also works to enhance the capabilities of regional science parks, preparing them for future economic growth.

PSU Innovations for Sustainable Society

PSU is a hub of knowledge and innovation derived from research and development. Over the years, the university has produced more than 1,200 innovations, focusing on research and development that meets the needs of the private sector, supports society, improves the quality of life, and protects the environment. A notable example is addressing the issue of patients with a tendency toward dry mouth, which is common among the elderly, patients with systemic diseases such as diabetes, and cancer patients undergoing chemotherapy or radiation.

Currently, artificial saliva in Thailand is mostly produced by state hospitals and requires a prescription from a doctor or dentist. The artificial saliva from state hospitals is often found to have an unpleasant taste and is inconvenient to carry. Moreover, commercially available artificial saliva tends to be expensive. In response, PSU has developed a gel-ball artificial saliva product that stimulates or replaces natural saliva, helping to coat the oral mucosa, reduce friction and injuries, increase moisture, reduce the risk of oral diseases, and improve patients' quality of life.

This innovation has been developed in collaboration with the private sector to promote its full commercialization. The technology has been transferred for production and future sales, with the goal of reducing imports and making the product affordable for patients and the public. Examples of PSU's innovations in 2024 can be found as follows.

เครื่องหมายโมเลกุลสำหรับจำแนกพันธุ์ปาล์มน้ำมันลูกผสมเทเนอราต้นที่ให้ผลผลิตน้ำมันต่ำด้วยเทคนิคแลมป์

"มีความแม่นยำสูง ราคาถูก สามารถประยุกต์ใช้ในภาคสนาม ทราบผลการตรวจสอบภายใน 1 ชั่วโมง"

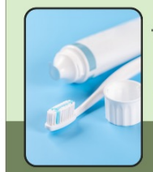
เครื่องหมายโมเลกุลสำหรับตรวจสอบสายพันธุ์ปลาทะเลด้วยเทคนิคเอชอาร์เอ็ม

"สามารถตรวจสอบสายพันธุ์ปลาทะเลได้อย่างแม่นยำ รู้ผลภายใน 1 ชั่วโมง"

ผลิตภัณฑ์เจลลี่นิ่มที่สามารถคืนตัวในสภาพเดิมได้หลังผ่านกระบวนการสเตอริไรเซชั่น

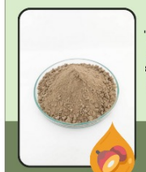
"สามารถคืนตัวในสภาพเดิมได้หลังผ่านกระบวนการสตอริไรเซชั่น มีอายุการเก็บรักษาได้นานกว่า 6 เดือน นำไปประยุกต์ใช้ได้หลายผลิตภัณฑ์"

สาระลายกำจัดเชื้อแบคทีเรียเฮลิโคแบคเตอร์ไพโลไรในช่องปาก



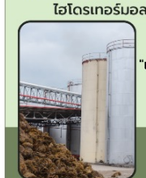
"ใช้สารที่ได้จากจุลินทรีย์ไพรไบโอติกหรือโพสต์ไบโอติกเป็นหลัก สามารถกำจัดเชื้อแบคทีเรียเฮลิโคแบคเตอร์ไพโลไร เป็นหนึ่งในสาเหตุของโรคกระเพาะอาหารอักเสบ "

ชีวภัณฑ์ควบคุมกาโนเดอร์มาในปาล์มน้ำมัน



"สามารถฟื้นฟูและยืดอายุต้นปาล์มน้ำมันที่ถูกทำลายโดยกาโนเดอร์มา ยับยั้งเส้นใยเชื้อรากาโนเดอร์มาได้มากกว่าร้อยละ 95 ใช้งานสะดวก ไม่ทำลายเนื้อเยื่อของพืช "

ระบบการกำจัดไพแกสเซียมและกู้น้ำมันคืนกลับจากทะลายปาล์มเปล่าด้วยของเหลวโดยใช้ระบบไฮโดรเทอร์มอลแบบควบคุมอุณหภูมิ

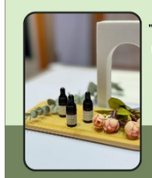


"เป็นระบบการจัดการที่ช่วยเพิ่มประสิทธิภาพการเผาไหม้ และช่วยเพิ่มผลผลิตน้ำมัน"

กรรมวิธีการผลิตโปรตีนไฮโดรไลเสตจากเศษเหลือรังนกที่มีมูลค่าต่ำ

"เป็นกรรมวิธีที่เพิ่มมูลค่าให้แก่เศษรังนกที่มีมูลค่าต่ำ และกรรมวิธีสามารถประยุกต์ใช้ได้ง่าย"

ผลิตภัณฑ์น้ำมันหอมระเหยบรรเทาอาการนอนไม่หลับ



"ช่วยรักษาอาหารนอนไม่หลับ เพิ่มการผ่อนคลายด้วยสูตรน้ำมันหอมระเหยที่ผ่านการทดสอบจากอาสาสมัครที่มีปัญหาการนอนหลับ"

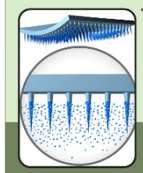
เซรั่มบำรุงผิวจากสารสกัดมาตรฐานบัวบกที่มีปริมาณสารสำคัญสูง

"สารสกัดบัวบกมีฤทธิ์ในการต้านการอักเสบ ช่วยในการสมานแผล"

เครื่องมือสำหรับคัดเลือกอสุจิโดยเทคโนโลยีไมโครฟลูอิดิกส์สำหรับเทคโนโลยีการเจริญพันธุ์

"เป็นเครื่องมือที่สามารถคัดเลือกอสุจิได้ในระยะสั้น และคัดเลือกอสุจิที่แข็งแรง"

ผลิตภัณฑ์แผ่นเข็มขนาดไมครอนแบบสลายตัวได้



"ลดภาวะการเจ็บปวดเมื่อเทียบกับการใช้เข็มโลหะ วัสดุที่ใช้ทำแผ่นเข็มขนาดไมครอนแบบละลายได้ ปลอดภัยกับผู้ใช้ และเป็นมิตรกับสิ่งแวดล้อม"

น้ำลายเทียมแบบเจลบอล

"น้ำลายเทียมแบบเจลบอล ได้มีการพัฒนาให้มีรสชาติที่ดี สะดวกต่อการใช้รับประทาน ช่วยลดอาการปากแห้ง ลดการนำเข้า และราคาไม่แพง"

10 REDUCED INEQUALITIES

REDUCED INEQUALITIES

ลดความเหลื่อมล้ำ

Notice of Non-Discrimination

In accordance with the Gender Equality Act B.E. 2558 (2015) and the Education Provision for Persons with Disabilities Act B.E. 2551 (2008), Prince of Songkla University (PSU) affirms its strong commitment to equality and inclusivity through the University's Non-Discrimination Policy. PSU strictly prohibits any form of discrimination based on nationality, ethnicity, race, religion, ancestry, color, disability, gender, gender identity or expression, and sexual orientation in all aspects of its operations, including admissions, employment, and educational activities.

To ensure equitable access and participation, the University has implemented supportive measures and facilities for students and staff who require special assistance or care. In addition, a designated Working Group on Non-Discrimination has been established to oversee policy implementation and to handle inquiries or concerns related to discrimination, ensuring that PSU remains a safe, respectful, and inclusive environment for all.

Non-Discriminatory Admission

PSU maintains non-discriminatory policies for both student admissions and staff recruitment, except in programs that are governed by professional council requirements. In addition, the university has a direct admission program for students with disabilities, which provides them with a special pathway to higher education without having to compete with regular applicants. The university also implements an admission program for students from provinces affected by unrest in Thailand's southern border region.

Educational level	Male	Female
Bachelor's degree	3121	6137
Master's degree	331	473
Doctoral degree	101	96
Graduate diploma	5	6
Higher graduate diploma	50	60

In the 2024, the university has new students at a male-to-female ratio of 1:1.85, an increase from the previous year's ratio of 1:1.80.

Student Financial Aids

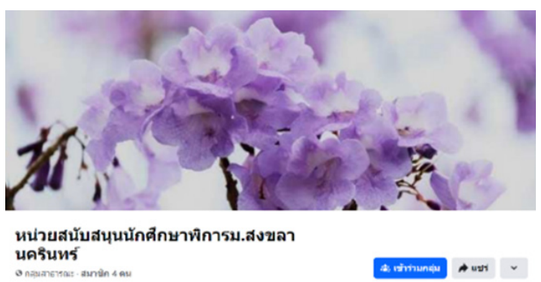
For undergraduate students requiring financial assistance, PSU, in collaboration with all faculties, provides scholarships to ensure equal access to higher education. In 2024, PSU allocated a total budget of 24,416,170 baht to support 908 students through this program, including 25 scholarships for students with disabilities, covering tuition waivers, free university housing, and a living allowance. The remaining scholarships were granted to students from low-income families, ensuring that financial limitations do not hinder their educational opportunities. Moreover, to expand educational opportunities for students from low-income and lower-middle-income countries, PSU offered 66 scholarships to support their pursuit of graduate studies.

Financial Aids	Number of students
Scholarship for disabilities	25
Scholarship for students from low-income and lower-middle-income countries	66
Scholarship for low-income students	883

Vulnerable Groups Supports

PSU offers special admission tracks for students in vulnerable groups, including those with disabilities, marginalized backgrounds, and those affected by armed conflict. This academic year, PSU welcomed 97 new students from these vulnerable and marginalized groups.

Types of Disabilities	Number of students
Autistic people	3
Locomotor impairment	79
Hearing impairment	1
Visual impairment	14



Eliminating Gender and Religious Discrimination on Campus

PSU is situated in a multicultural setting and is committed to respecting student diversity in terms of gender identity and religion. Accordingly, the university has issued regulations regarding attire based on gender identity, as well as dress codes for Muslim students. Furthermore, the university has established prayer rooms and designated restrooms to accommodate the needs of LGBTQ students. In addition, student activities are organized with consideration for the different religious practices as well as the rights of LGBTQ students. This principle is applied consistently to both students and university staff.

Counseling Services

The university has established a unit to provide counseling services for students with mental health concerns, available both onsite and online. Due to the large number of students seeking counseling for psychological problems (onsite: 286; online: 167), the number of available counselors has proven insufficient. Therefore, in this academic year, the university has recruited an additional eight psychologists, distributed across five campuses.

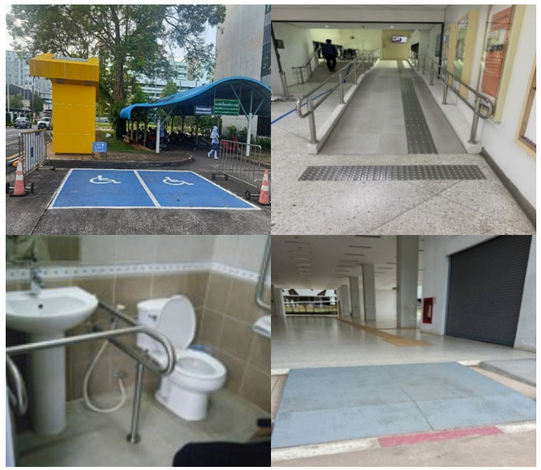
In addition, the university has organized proactive activities to prevent emotional and mental health problems, such as mental health screening using DASS-21 and work-life balance activities.

Inclusive Facilities for Disabled People at PSU

In order to ensure that persons with disabilities are able to participate in university life on an equal basis with others, the university has implemented accessible facilities, including wheelchair ramps, restrooms for persons with disabilities, and elevators equipped with Braille signage.

Related Research

PSU is committed to advancing knowledge across all areas to address social inequality. In 2024, the university's researchers contributed to this effort by publishing articles on related topics, including: "Perceived attitudes toward LGBTQ+ physicians among individuals with psychiatric illness in the religiously diverse Southern Region of Thailand: a multihospital-based survey," BMC Psychology, 12(1), 169, 2024, and "Prediction of pure tone thresholds using the speech reception threshold and age in elderly individuals with hearing loss," BMC Research Notes, 17(1), 107, 2024.



11 SUSTAINABLE CITIES AND COMMUNITIES

SUSTAINABLE CITIES AND COMMUNITIES

ชุมชนและเมืองที่ยั่งยืน

PSU's Policies for Sustainable Cities and Communities

Prince of Songkla University (PSU) reaffirms its commitment to the United Nations Sustainable Development Goals (SDGs) through sustainability-oriented policies and efficient resource management. In alignment with SDG 11, PSU promotes sustainable cities and communities by adopting the Green Building Standard for new constructions and implementing a Green Office Policy across its five campuses to reduce environmental impact and enhance energy efficiency. The University also encourages the use of public transportation to limit reliance on private vehicles, supported by improved campus infrastructure. These initiatives collectively strengthen PSU's role in fostering sustainable development and mitigating health and social risks.

PSU's New Build Standards and Greenbuildings

PSU designs and renovates campus buildings in accordance with recognized green building standards that integrate the principles of SDGs. These standards prioritize energy-efficient systems and people-centered usability. The University's Terms of Reference (TOR) for all new constructions and renovations mandate the application of Universal Design principles to ensure equitable access for students, staff, visitors, and individuals with disabilities across entrances, circulation routes, shared spaces, and service areas. These TOR provisions guide ongoing improvement projects–such as cafeteria renovations-and ensure that future facilities are efficient, inclusive, and resilient, reflecting PSU's commitment to fostering sustainable, high-quality environments for learning, work, and community engagement.

PSU's Accessible Pedestrian and Cover Way

PSU Hat Yai campus prioritizes pedestrian-friendly access through an extensive network of sidewalks, comprising approximately 1,729.5 meters of covered walkways and 8,569.5 meters of uncovered paths that connect key academic and service areas. This network provides safe and comfortable routes for all-weather use. In 2025, the University constructed an additional 345.5 meters of covered walkways near the Faculty of Management Sciences and along the Learning Resource Center frontage. Further extensions are planned for fiscal years 2025-2026 through state budget allocations to expand coverage across educational zones. These continuous investments enhance campus safety, accessibility, and walkability, reinforcing PSU's commitment to a healthy, people-centered learning environment.

PSU's Affordable Housing for Employees and Students

The university has provided free accommodation for employees. At Hat Yai campus, for instance, there are 164 staff houses, 24 central apartment buildings (833 rooms), and 29 Faculty of Medicine residences (2,803 rooms), all designed for safety, convenience, and community. Residences are supported by round-the-clock security and maintenance and are within walking distance of classrooms, labs, clinics, libraries, dining, and sports facilities. Standard amenities include furnished rooms, Wi-Fi, common study areas, laundry access, and green open spaces. Transparent pricing and straightforward applications help ensure equitable access, while prioritization for first-year students, clinical rotations, and essential staff fosters a supportive environment that strengthens learning and work-life balance.

For students, the university has provided 26 dormitories, which include 4,418 rooms, accommodating around 11,387 students at affordable prices ranging from 3,300 -12,000 baht per person per semester.

PSU's Sustainable Commuting

PSU provides sustainable commuting options for staff and students. At Hat Yai campus, the University operates five electric vehicle (EV) minibuses on three intra-campus routes and is expanding service to nearby residential clusters, assigning two EVs to the new segment while maintaining three on existing routes. This system achieves significant emissions reductions: daily motorcycle emissions avoided amount to approximately 231.00 kgCO2e, while EV emissions total around 44.88 kgCO2e, resulting in a net reduction of approximately 186.12 kgCO2e per day (≈56 tCO2e/year for 300 operating days; ≈68 tCO2e/year for 365 days). By replacing an average of 4.2 km/day/person of motorcycle travel and operating EVs at 0.7 kWh/km, PSU demonstrates measurable greenhouse gas reductions, improved campus safety, and reduced congestion, reinforcing its leadership in data-driven, practical sustainability initiatives.

PSU's Cultural Space and Heritage Reservation

The Princess Galyani Vadhana Institute of Cultural Studies at PSU preserves and promotes the cultural heritage of Southern Thailand. Its art gallery and Hall of Southern Culture serve as accessible centers for arts and cultural education. Free to the public, the Institute attracts around 500 visitors monthly, including students, educators, community members, and professionals interested in Southern Thai art and culture.

In 2021, the owner of an ancient Chinese house, No.5, donated the 170-year-old house to PSU for preservation as a learning center focused on cultural heritage. The house, located in Pattani Old Town, is open to the public daily between 10 AM and 4 PM, with free access. Today, it has become a destination for those interested in Chinese architecture and cultural tourism

PSU's Building on Brownfield Sites

PSU Hat Yai converted a long-disused building into the Wastewater Treatment Operations Office under the Utilities Unit, Physical & Environmental Division. The refurbished facility now facilitates data collection, inspection, and quality control for the campus's centralized wastewater ponds, enabling faster sampling, safer storage, and coordinated reporting. By prioritizing adaptive reuse over new construction, PSU minimized material waste and revitalized an underutilized asset while providing a safer, more ergonomic workspace for technicians. This upgrade enhances environmental compliance, safeguards campus ecosystems, and improves service responsiveness for students and staff.

Wastewater Treatment Operations Office building after renovation

In Pattani campus, the university renovated the previously abandoned Thai Panich Uthit building into overnight accommodation, functioning as a small hotel to expand the services of the Blue Lapan Inn Pattani. The facility includes seven standard rooms and a hostel with 14 beds and officially opened on 2 April 2024.

Arts and Heritage Contribution Projects and Activities

PSU has undertaken numerous projects and initiatives to promote the preservation of arts and cultural heritage. The following summarizes the activities carried out in 2024.

PSU's Annual Public Performances

On February 29, 2024, at the PSU Auditorium, in collaboration with the Department of Musicology, Faculty of Fine and Applied Arts, Mahidol University, hosted a classical music performance to commemorate the 55th anniversary of the founding of PSU. The event also honored Colonel (Special) Dr. Thanat Khoman, a co-founder and the first president of the university.

In addition, on special occasions, PSU showcases local performing arts to preserve and carry forward cultural heritage. Especially notable is Nora, a traditional dance from Southern Thailand. Manora has performed during the opening ceremony of the Volunteer Development Camp across five campuses, held from 22-26 April 2024.

Khon Performance at Pattani Campus

PSU Pattani Campus presented the Khon Songkhla Nakhon performance of the Ramakien story, "Ubai Raphon Ron Ramana," from 7-8 September 2024. The performance was held in three sessions: 7 September at 14:00 and 18:00, and 8 September at 14:00, at the Conference Hall, International Convention Center, in celebration of the 60th Anniversary of His Majesty the King's Reign.

Music Performance at Night Ran 2024

Performed by the PSU Pattani Campus Western Music Club on 28 August 2024.

31st Arts and Cultural Festival at PSU Pattani Campus: "Simple Cultural Ways Toward Sustainable Development"

The festival, held at the Cultural Studies Institute, featured music and traditional performing arts, local handicrafts, and demonstrations of traditional cuisine. Activities included: local handicrafts, traditional cuisine demonstration, and traditional music performance.

In addition, PSU has initiatives training courses to preserve and promote performing arts and cultural heritage for students and interested members of the public.

PSU also conducts research projects to document and preserve intangible cultural heritage while promoting the creative cultural economy. In 2024, the total expenditure on arts and cultural heritage amounted to 6,163,986.23 THB. For example, the project "Participatory Development of Krajud (Screw Pine) Weaving Products Inspired by Ko Yo Textile Patterns for the Creative Economy" was implemented at the Ban Khok Phayom Sufficiency Economy Learning Center.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

RESPONSIBLE CONSUMPTION AND PRODUCTION

การผลิตและการบริโภคอย่างรับผิดชอบ

Related Policies

Green Procurement Policy

Prince of Songkla University (PSU) has announced and implemented a Green Procurement Policy to ensure sustainable production and consumption patterns across the institution. The policy emphasizes the efficient and sustainable management and use of natural resources, encouraging all university units to prioritize the procurement of environmentally friendly goods and services that minimize negative environmental impacts throughout their life cycle, from raw material acquisition, production, and transportation to use and disposal.

The university supports the selection of suppliers and service providers certified with recognized environmental standards and gives priority to those with sustainable practices. PSU also promotes fair and transparent procurement procedures, ensuring equal opportunities for all vendors. Each unit is encouraged to procure at least 80% of goods and services that are environmentally friendly and to support suppliers with strong environmental management practices throughout their supply chains.

Waste and Hazardous Waste Management Policy

In 2024, PSU announced its Waste and Hazardous Waste Management Policy, designed to strengthen, support, and drive sustainable development across all campuses. The policy covers the entire waste management process, from generation to disposal, with an emphasis on participation from students, staff, and campus vendors to ensure integrated and effective implementation.

The policy promotes the 3Rs principles:

- Reduce - minimizing resource use and waste generation,
- Reuse - encouraging repeated and efficient use of materials, and
- Recycle - reprocessing materials for reuse.

In addition, PSU encourages the reduction of single-use plastics and promotes the use of environmentally friendly materials and products according to university guidelines. Various campaigns aim to build awareness and cultivate behavioral change toward a sustainable campus culture.

Plastic and Foam Reduction Policy

PSU has enforced a university-wide policy to reduce plastic use and eliminate foam packaging, promoting awareness among staff, students, and vendors.

The policy includes:

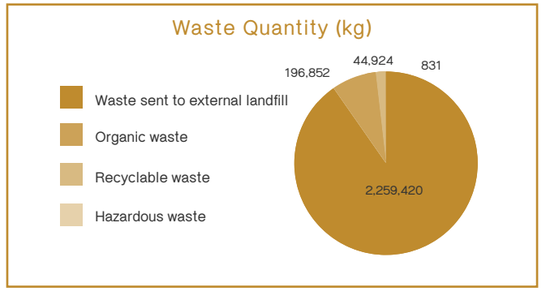
1. Using reusable or biodegradable materials such as bagasse, banana leaves, bamboo, or cassava-based containers.
2. Requiring vendors to reduce single-use plastic packaging and switch to environmentally friendly alternatives.
3. Encouraging behavioral change through continuous campaigns and communication.

Specific measures include:

- Eliminating single-use plastic cups, straws, and bags.
- Encouraging vendors to offer discounts for customers using reusable containers.
- Allowing vendors to charge small additional fees for eco-friendly packaging to promote sustainable choices.

Waste Data and Performance

To ensure effective waste management, PSU tracks and records waste quantities by type. In 2024, the waste amount by types are shown as follows:



Waste Management Implementation

To translate policy into practice, the university has installed waste collection and segregation systems across all campuses:

- General and recyclable waste bins in public areas for everyday use.
- Organic waste bins (200 liters and smaller sizes) near offices and staff residences for compostable waste.
- Hazardous waste collection points for used light bulbs, batteries, e-waste, spray cans, and similar materials, located in offices, dormitories, and residential buildings.

These systems form the initial stage of a comprehensive waste collection process to ensure proper handling and disposal by authorized agencies.

Waste Reduction through the 3Rs

Reduce - Minimizing Resource Use

PSU applies the 3Rs principles across all administrative and academic operations.

The university significantly reduced paper use by adopting online systems and digital document management through the E-Doc system.

In 2024, this initiative reduced paper use by 15,422,471 sheets, saving approximately 1,494 trees and reducing 87.91 tons of CO2 equivalent emissions. This demonstrates the success of PSU's digital transformation in conserving resources and reducing waste.

Reuse - Promoting Reuse of Materials

The university reuses various materials and resources to reduce waste and expenditure:

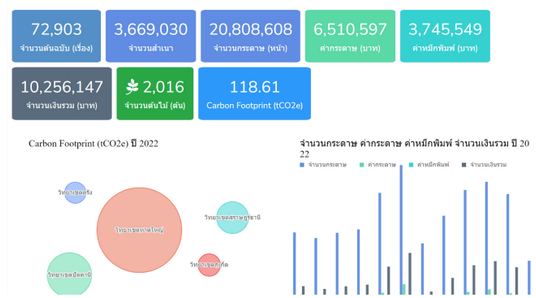
- Reusing paper and envelopes in administrative offices.
- Reusing paper bags as document covers.
- Repurposing used plastic bottles, jars, and containers into flower vases or plant pots for office and restroom decoration.
- Reusing treated wastewater for watering campus gardens and green spaces.

These simple but impactful practices promote responsible consumption and demonstrate efficient use of available resources.

Recycle - Transforming Waste into Value

Many university units actively engage in recycling initiatives to repurpose waste into useful materials, including:

- Recycling plastic bottle caps into handbags.
- Producing organic compost from leaves, grass, and canteen food scraps for use in landscaping.
- Delivering food waste to local farmers as animal feed, while smaller amounts are composted onsite for fertilizer.
- Processing tree branches and wood waste into charcoal for university use and income generation.



Waste Segregation and Awareness Activities

PSU organizes regular campaigns to promote waste segregation, waste reduction, and responsible consumption through creative communication and outreach.
Examples include:

- "No Plastic Bag" campaign - encouraging reusable bag use and providing bag borrowing stations in canteens.
- "PN PSU No Foam" campaign - eliminating all foam food containers from campus.
- "My Bottle, My PSU, My World"-promoting reusable bottles and cups, with beverage discounts as incentives.
- "Say No to Plastic Straws" - reducing plastic straw waste through the Canteen Go Green initiative.
- "Phi Hor Kho Khud" (Dormitory Recycling Program) - encouraging dorm residents to exchange recyclables for goods such as detergent, snacks, or stationery.
- PSU Recycle Bank - open on weekdays to purchase recyclable materials like plastic bottles, paper, and aluminum cans.
- Plastic Bag and Film Donation Project - collecting soft plastics for recycling under the "Won" project, in partnership with TPBI Public Company Limited.

Green Office and Sustainable Campus

To promote a sustainable work environment, PSU has integrated the Green Office initiative under the PSU Green University framework. Participating faculties and departments apply environmental management measures covering:

- Resource and energy efficiency,
- Waste and environmental safety, and
- Green procurement.

Each office maintains records of waste quantities, establishes waste management routes, and implements an action plan toward achieving Zero Waste operations.

Green Partnerships and Sustainable Procurement

PSU extends its sustainability practices to external operations by requiring business partners, vendors, and contractors to comply with Green Office policies and environmental standards. Contractors must:

- Use eco-certified products (Green Label, Energy Star, Carbon Footprint labels, etc.).
- Avoid pollution and minimize waste during work
- Save electricity and water, and practice proper waste segregation.
- Avoid single-use plastics and foam packaging during operations.

Performance evaluations are conducted regularly to ensure continued compliance before contract renewal.

13 CLIMATE ACTION

PSU PRINCE OF SONGKLA UNIVERSITY | SUSTAINABILITY REPORT 2024

CLIMATE ACTION

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Global and Frontier Climate Change Research

Prince of Songkla University (PSU) actively contributes to Sustainable Development Goal 13 (SDG 13): Climate Action through targeted research and innovation. The university produces high-impact, internationally recognized research focused on developing solutions for climate change mitigation and adaptation. This work generates new scientific knowledge and provides actionable strategies designed to enhance the resilience and sustainability of communities, both within Thailand and internationally.

Research Output on SDG13

252	Number of Scopus-indexed publications (2020-2024) addressing SDG 13: Climate Action.
24.7%	Average annual growth rate of Scopus publications on SDG 13 (2020-2024).
5th	Prince of Songkla University (PSU) is ranked 5th nationally among Thai universities for the number of publications related to SDG 13 from 2020 to 2024.
1.34	The Relative Activity Index (RAI) for Prince of Songkla University (PSU) in SDG 13-related publications from 2020 to 2024.

Research Quality Output on SDG13

1.30	Field Weighted Citation Index (FWCI) of Scopus Indexed Publications Related to SDG from 2020 to 2024
59.8%	PSU's publications on SDG 13 were published in top-quartile (Q1) journals, demonstrating a focus on high-impact research venues.
61.5%	Percentage of international collaboration in the production and publication of research related to SDG13 from 2020 to 2024

Good quality research about blue carbon economy for Net Zero Emission

Coastal ecosystems such as seagrass and mangrove are one of the most productive ecosystems on earth and they can provide ecosystem services as "blue carbon" sequestration and storage. The capacity of this ecosystem in trapping CO2 from the atmosphere and the oceans can be the solutions to global climate change. Assoc. Prof. Ponlachart Chotikarn from Faculty of Environmental Management leads research projects on blue carbon potential of natural and planted mangrove and seagrass in the Andaman Sea. The potential to use technologies such as geoinformatics, remote sensing and machine learning in accessing blue carbon were also be studied. These data can be used for 1) estimating blue carbon economy, 2) developing mitigation plans for future climate change, 3) developing a tool and platform for accessing blue carbon.

Education to support Climate Action

Faculty of Environmental Management and Faculty of Technology and Environment provide several study programs that support SDG13. The programs includes: M.Sc. and Ph.D. programs in Marine and Coastal Resources Management and M.Sc. and Ph.D. programs in Environmental Management, M.Sc. and Ph.D. programs in Sustainable Energy Management, M.Sc. program in Community Ecotourism Management, Ph.D. program in Ecosystem Innovation Management for Sustainable Tourism, M.Sc. and Ph.D. programs in Earth System Science, B.Sc. and M.Sc. programs in Environmental Technology Management and B.Sc. program in Marine Science and Coastal Management.

The General Education (GE) courses about climate change, such as "Save Earth, Save Us", "Disrupted Sea", and "Earth System and Environment", are offered to undergraduate students. Core and elective courses, such as Climate Change and Ecosystem, Integrated Marine and Coastal Resources Management, Climate Change and Environmental Management, Climate Change and Tourism, Design for Energy and Environment, Air Pollution Coastal Disaster, Coastal Evolution and Sea Level history, Sustainable Watershed Management, Sustainable Development Goals, Disaster Management, Coastal Process and Impact, Coastal Community-Based Management and Sustainability, Coastal Resources Management, Circular Economy, Holistic Environmental Management in Digital Era, and Community Adaptation to Global Environmental Change, are offered to undergraduate and postgraduate students.

Students' thesis in these programs also supports SDG13. Several student projects are related to climate change, such as, impact of climate change on terrestrial, freshwater and marine organisms and ecosystem, coastal community adaptation to climate change, mitigation and adaptation options to climate change, development of green hotel and low carbon tourism, development of policy for sustainability on food and agriculture, CBDRM in Thailand, carbon footprint and carbon sequestration.

Raising public awareness about climate change

To reduce greenhouse gas emission, human behavioral changes and society action must be completed. This can be done by raising awareness and outreach in order to provide an understanding on the effect of climate change and anthropogenic changes on ecosystems and livelihoods, including mitigation and adaptation options. Several activities have been done to raise public awareness about climate change, such as radio interviews, webinar, exhibitions, and social media contents (such as www.facebook.com/coccpsu).

- Assoc.Prof. Dr. Mathinee Yucharoen, a researcher at the Coastal Oceanography and Climate Change Research Center, Faculty of Environmental Management, Prince of Songkla University (PSU), provided an interview to the public media on the topic of "Coral Bleaching Phenomenon" (https://www.facebook.com/share/p/17RFYDnAwp/, https://www.facebook.com/share/p/1M45mBDHjE/)
- Assist. Prof. Dr. Tanan Chub-Uppakarn, Director of the Southern Thailand Natural Disaster Research Center, Prince of Songkla University (PSU), provided an interview to the public media on the topic of "Rain Bombs: Climate Crises Driven by Global Warming" (https://www.facebook.com/share/v/1B67RiVHTq/).

Workshops, training, conferences, public seminar, public talk to support Climate Action

An increase in knowledge sharing among researchers and between researchers and the public is very important in capacity building on climate change science, impact, adaptation and mitigation options. National, international, virtual and on-site seminars, talks, workshops, training courses and conferences on climate change and environment were organized by PSU such as

- The 50th International Congress on Science, Technology and Technology-based Innovation (STT50), Symposium16: Nature-based Solutions for Climate Mitigation. (26 November 2024) (https://www.facebook.com/share/p/1F5ij6Z5Fz/ , https://www.facebook.com/share/p/1YLaQezpdk/)
- Faculty of Environmental Management, PSU organized a seminar on “Addressing global boiling crisis through the integrated agroforestry system towards a globally important agricultural heritage: opportunities and limitations” (6 December 2024)
- Assoc.Prof. Kuaanan Techato gave a public talk on “the Carbon Capture and Storage Project” at a side event in the Thailand Pavilion, during the 29th United Nations Framework Convention on Climate Change Conference of the Parties (UNFCCC) or COP29. (11-22 November 2024)

- Assoc.Prof. Janya Chanchaichujit gave a public talk on the topic “Driving Low-Carbon Transformation in Freight Transport: Measuring, Reducing and Optimizing Emissions” and participation in seminar with logistics and supply chain management experts from the business sector in Singapore on the topic “Operationalizing Sustainability in Thailand: What’s driving change and how to lead it”, at LogiMAT-LogiSYM 2024 Cold Chain Thailand. (16-17 October 2024)
- Assoc.Prof. Janya Chanchaichujit was a speaker in the seminar on “The Key Drivers for Inclusive Green Transition in Thailand” at the ESG Symposium 2024: Driving Inclusive Green Transition. (30 September 2024)
- Assoc.Prof. Ponlachart Chotikarn was a speaker at Global collaboration for sustainable action: How Thailand’s higher education sector is leading the way on 10 June 2024 at the Global Sustainable Development Congress. In this session, experts from Thailand’s higher education sector along with the Ministry for Higher Education, Science, Research and Innovation demonstrated the crucial role the sector plays in driving cross-sector collaboration to build a better future for all, along with what national and international counterparts can learn from this example (https://www.timeshighered-events.com/gsd-congress-2024/agenda/speakers/3313367)
- The Faculty of Economics, PSU, in collaboration with the World Wide Fund for Nature (WWF) and the Thai Rubber Growers Network, held a consultative workshop on "Challenges and Opportunities from EUDR and Rubber Carbon Credits" during September 17-18, 2024. This crucial event, which directly supports global climate action (SDG 13), aimed to gather feedback on the impacts of the European Union Deforestation Regulation (EUDR) and present strategic guidelines for its implementation throughout the supply chain. The focus on carbon credits for rubber highlights the dual goal of economic resilience and greenhouse gas reduction through sustainable land management practices. The workshop was attended by 60 participants, including representatives from farmer institutions and farmers from four regions, private sector businesses, entrepreneurs, government officials, representatives from foreign government agencies, and the Rubber Authority of Thailand.
- Asst. Prof. Manasawan Saengsakda was a speaker in the workshop on “Knowledge for climate change adaptation: formulating urban development policies for climate change response in Surat Thani Province” (14-15 August 2024)
- Professor Dr. Anchana Prathep, Head of the Nature-Based Solution for Carbon Net Zero Human Resource Development Project, participated as a speaker on the topic "Green Talent Development to Support Bio-Circular-Green Economy in ASEAN." The Climate Change Academy also organized an exhibition booth on the topic of "Nature-Based Solution" at the ATM CONNECT: Green Talent Development to Enhance ASEAN Economic Co-Creation and Sustainable Society through STI-Based Solutions event. The event was organized by the Office of the Permanent Secretary, Ministry of Higher Education, Science, Research and Innovation (Foreign Affairs Division) from February 27 to March 1, 2024, at Mandarin Hotel, Bangkok.
- Assoc.Prof. Ponlachart Chotikarn was a speaker in the topic “Climate change science, its impact, and mitigation strategies” and “Other threats that affect vulnerability and require resilience building” in the workshop on “Fisheries resilience to fisheries management in small-scale fisheries” (18 June 2024)
- Asst. Prof. Manasawan Saengsakda was a speaker in the workshop on “Knowledge and Climate Change Adaptation for Coastal Community Areas in Songkhla Province” organized by UNDP (5-6 June 2024)
- On Tuesday, January 23, 2024, the Faculty of Economics, PSU, held a workshop on "The Integrated Climate Action Planning 2050 tool (ICLAP) for Asia-Pacific cities." The main speakers were Dr. Mahendra Sethi from the Indian Society for Applied Research & Development and Lecturer Eva Ayaragarnchanakul from the Department of Economics, PSU. The event was supported by the Asia-Pacific Network for Global Change Research, Japan.(https://www.facebook.com/share/p/1H1HF3NkWc/, ; https://sites.google.com/psu.ac.th/econ-psu-research/activity)

Establishment of Climate Change Academy to support Climate Action

Faculty of Science, Prince of Songkla University's (PSU) established Climate Change Academy to serve as a major hub on knowledge transfer and capacity building on climate change in collaboration with TGO, GISTDA, Council of Science Deans of Thailand (CSDT), IUCN, and Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B). Professor Anchana Prathep, the Dean of the Faculty of Science leads a key working committee responsible for creating the knowledge base through training and curricula to drive the university toward its goal of Carbon Neutrality by 2030.

Carbon Footprint for Organization

On August 28, during the 5th/2024 meeting of the Board of Directors of the Thailand Greenhouse Gas Management Organization (Public Organization) or TGO, the Board officially announced that the Faculty of Science, PSU, has been successfully registered for the Carbon Footprint for Organization (CFO) Label (also known as the Corporate Carbon Footprint: CCF).

This certification validates the data on the amount of greenhouse gas emissions resulting from the organization's operations and various activities over a one-year period. The Carbon Footprint for Organization Label is valid for a period of one year.

The Carbon Footprint for Organization (CFO or Corporate Carbon Footprint: CCF) is an essential tool that organizations can use to apply principles and requirements for preparing a greenhouse gas inventory, measuring quantities, and reporting emissions.

Environmental education collaborate industry on climate adaptation and mitigation

PSU has procured four air-conditioned electric buses and received one additional EV bus from Hatthip Co., Ltd to support campus transportation and activities. The initiative promotes environmental sustainability, reduces carbon emissions and noise pollution, and serves as a model for clean energy adoption and student engagement in sustainable development. These buses will serve students, staff, and the public traveling within the campus. In the coming years, the campus plans to allocate a budget to acquire additional standard and safe EV buses to meet growing demand.

Support local or regional government in local climate change disaster/risk early warning and monitoring

Southern Natural Disaster Research Center, PSU, was established to conduct (a) Long-term, continuous collection of primary data on floods, landslides, coastal erosion, and climate change in Southern Thailand; (b) Research on water-related disasters, landslides, and disaster management, including analysis, evaluation, and model development; (c) Dissemination and public relations center for natural disaster information and research from PSU; and (d) A learning and training center for natural disasters in the South. Their mission is to be the most reliable research and learning center for natural disasters in Southern Thailand, with the strategy of conducting natural disaster research, coordination, and promotion of research among PSU researchers to ensure quality and reliability and serving as a learning source regarding disasters in Southern Thailand. This research center provides early warning and monitoring on climate change disaster and other disaster in their facebook https://www.facebook.com/NadRecPSU and website https://nadrec.psu.ac.th/.

PSU's Climate Action: from policy to action

PSU, Pattani Campus, led by Assistant Professor Dr. Attachai Ueranantasun, Vice President of Pattani Campus, along with the Carbon Credit working group, held a meeting with Ms. Patimoh Saduyamu, the Governor of Pattani Province, and relevant partner networks, including the Pattani Provincial Office of Natural Resources and Environment, the Pattani Provincial Energy Office, the Pattani Provincial Local Administration Promotion Office, and the Strategy Group of the Pattani Provincial Office. The purpose was to announce a collaboration to drive Pattani Province towards the goals of Carbon Neutrality and Net Zero Emissions. The meeting took place at the Pattani Provincial Hall on October 3, 2024.

Assistant Professor Dr. Attachai Ueranantasun, Vice President of Pattani Campus, stated that the discussion aimed to jointly determine appropriate guidelines and activities for reducing greenhouse gas emissions suitable for Pattani's context. These include promoting the use of renewable energy, solid waste management, afforestation, and building awareness within the community, with a focus on the participation of all sectors–government, private, and public.

In addition, they discussed the development of a carbon credit project, which is a key tool for reducing greenhouse gas emissions and generating income for the community. The university will support research and development in this area to enable Pattani Province to achieve its emissions reduction targets and be a part of addressing global climate change.

PSU, Pattani Campus, as an organization with extensive expertise in Carbon Credit, has taken on the role and responsibility of providing academic and technical consultation regarding Carbon Neutrality, Net Zero Emissions, and carbon credits.

The university will:

- Establish a committee of experts on carbon credit and climate change, and provide recommendations on project development and calculating the amount of greenhouse gas reduction.
- Conduct research to develop locally appropriate methods for reducing greenhouse gas emissions, including studying the potential for reduction in various sectors in Pattani Province and conducting research and development of suitable technologies for the local context.
- Organize training and seminars to disseminate knowledge about carbon credits, including conducting training courses for staff of partner agencies and relevant stakeholders, as well as organizing an annual academic seminar to exchange knowledge and experiences.
- Raise awareness about carbon credits among both the university community and within Pattani Province.

Green Office Awards

PSU continues to demonstrate leadership in environmental sustainability through its Green Office initiatives and carbon neutrality programs.

The Office of Academic Resources achieved Gold-level Green Office certification for Building 22, while both the John F. Kennedy Library and the Learning Technology and Innovation Building also attained Gold awards for their outstanding implementation of sustainable office practices. Likewise, the Faculty of Humanities and Social Sciences earned Gold-level certification, reflecting its strong commitment to resource efficiency and environmentally responsible management.

At the Pattani Campus, PSU received national recognition for its exceptional contribution to the "ECOLIFE in U" program, an initiative jointly organized by the Ministry of Higher Education, Science, Research and Innovation (MHESI) and KidKid Co., Ltd. The program promotes carbon neutrality and sustainable behavioral change within Thai universities.

Further advancing these efforts, PSU Pattani Campus has partnered with Pattani Province to pioneer a Green Province Initiative, aiming to achieve net-zero carbon emissions through integrated collaboration between academia, local government, and communities.

In addition, the Faculty of Communication Arts, Pattani Campus, received the Excellent (Gold G) Award in the 2023 Green Office Program, and was recognized as the Outstanding Team at the faculty level for 2024, reaffirming PSU's dedication to environmental stewardship and sustainable campus operations.

14 LIFE BELOW WATER

LIFE BELOW WATER

ชีวิตใต้เบื้องสมุทร

Global and Frontier Life Below Water Research

Prince of Songkla University (PSU) demonstrates a core commitment to Sustainable Development Goal 14 (SDG 14): Life Below Water, guided by its strategic objective to "Create sustainability of natural resources and the environment of the two peninsulas" (SO3). Leveraging its unique position between the Andaman Sea and the Gulf of Thailand, the university conducts vital, high-impact research in marine biodiversity, sustainable aquaculture, and coastal ecosystem management. This work provides critical scientific data and practical solutions to conserve marine resources, reduce ocean pollution, and support the livelihoods of coastal communities, contributing directly to the health of our oceans.

Research Output on SDG14

308	Number of Scopus-indexed publications (2020-2024) addressing SDG 14: Life Below Water.
19.8%	Average annual growth rate of Scopus publications on SDG 14 (2020-2024).
5th	Prince of Songkla University (PSU) is ranked 5th nationally among Thai universities for the number of publications related to SDG 14 from 2020 to 2024.
1.34	The Relative Activity Index (RAI) for Prince of Songkla University (PSU) in SDG 14-related publications from 2020 to 2024.

Research Quality Output on SDG14

1.10	Field Weighted Citation Index (FWCI) of Scopus Indexed Publications Related to SDG 14 from 2020 to 2024
46.4%	PSU's publications on SDG 14 were published in top-quartile (Q1) journals, demonstrating a focus on high-impact research venues.
42.0%	Percentage of international collaboration in the production and publication of research related to SDG14 from 2020 to 2024

Producing good quality research on marine and freshwater biology, ecology and environmental change

Anthropogenic change is the main issue in marine and freshwater environments. PSU has several research teams e.g. Coastal Oceanography and Climate Change Research Center, Seaweed and Seagrass Research Unit, Coastal Ecology Lab, PSU-Symbiosis Laboratory, Aquatic Ecology Lab, from Faculty of Environmental Management, Faculty of Science, Faculty of Natural Resources, Faculty of Technology and Environment, and Faculty of Science and Technology that lead the research on marine biology and ecology of marine and freshwater organisms and their responses to environmental change. The research on biology and ecology of benthic fauna, fishes, isopod, corals, seagrass, macroalgae, mangrove, freshwater macrophytes have been done and published in the high-ranking journals. The multi-stressor effects (e.g. elevated temperature and light stress) were also observed in some marine and freshwater organisms. The data from these researches can be used as a database for predicting community and ecosystem response to climate and environmental change and for developing sustainable management plans for marine and freshwater environments.

Producing quality research on marine and coastal pollution to support life below water

Marine and coastal pollution (e.g. eutrophication, marine debris, heavy metal and microplastic) has been an issue globally and locally. Several researchers in PSU lead research on the distribution of marine debris and microplastic in environment including water and sediment and coastal and marine organisms in Thailand. They also developed novel tools and techniques to investigate and quantify microplastics in the marine and freshwater system using AI and machine learning. The studies showed the accumulation of marine debris and microplastic in the environment and organisms should be concerned. This research raises an awareness on the marine and coastal pollution. The data can be used for developing sustainable management plans for marine and coastal resources such as developing the innovation or methods for removing microplastic from water and prioritizing the clearing of marine debris in the natural system.

Academic services for community to support life below water

Thailand is globally recognized for its stunning natural beauty and rich cultural heritage, both of which provide substantial tourism and economic value. However, marine debris and coastal waste pollution remain major environmental challenges affecting the country's renowned islands and beaches, particularly in the southern and eastern regions. In response, PSU continues to spearhead initiatives that conserve marine biodiversity and promote sustainable coastal ecosystems through research, education, and community collaboration.

Beach Cleanup Initiative: "Collecting with Love, Scooping with Heart Squared"

On December 24, 2024, PSU, in collaboration with the Coca-Cola Foundation Thailand, organized a large-scale beach cleanup activity at the Krabi River Estuary and Koh Klang, Krabi Province. The event, coordinated by Assoc. Prof. Dr. Chanisada Chusuk from the Faculty of Environmental Management, PSU, engaged more than 200 participants, including researchers from PSU, Hatyai University, and Sirindhorn College of Public Health (Trang Province), alongside local community members.

Participants collected and sorted marine and coastal waste for sustainable recycling and upcycling. The initiative was implemented under the "Support Program for the Management of Recyclable Materials in Island Areas," part of Thailand's Bio-Circular-Green (BCG) Economy model, a national strategy promoting environmentally responsible economic growth. This collaborative effort inspired ongoing creative environmental conservation activities to preserve the beauty and ecological balance of Thailand's coastal and island environments.

Marine Conservation Research and Collaboration

The Faculty of Science, PSU, together with national research and conservation partners, signed a Memorandum of Understanding (MOU) to advance the study and conservation of dugongs, seagrass habitats, and marine ecosystems. This MOU strengthens academic cooperation

in conducting joint research, developing marine conservation technologies, and transferring scientific knowledge for practical applications in resource restoration and environmental policy development.

Project Highlight: "Enhancing the Potential of Blue Crab Banks to Restore Coastal Resources"

From May 2024 to March 2025, Asst. Prof. Dr. Sirusa Kritsanapuntu of the Faculty of Science and Industrial Technology, PSU Surat Thani Campus, led a major research initiative titled "Enhancing the Potential of Blue Crab Banks to Restore Coastal Resources and Create Economic Value in Chumphon Province." The project aims to revitalize the blue crab population, a vital economic marine species, through the integration of local wisdom and academic research.

The project engaged 16 Blue Crab Banks, 14 in Chumphon Province (Pathio, Mueang, and Lamae districts) and 2 in Surat Thani Province (Mueang and Kanchanadit districts). Activities included workshops, educational outreach, and community engagement events such as "Learning Blue Crab Banks... Returning Crabs to Our Sea", conducted in partnership with Medco Energy Thailand (Bualuang) Limited across eight schools.

Key conservation activities included:

- Releasing berried crabs and larvae to replenish marine populations.
- Coastal cleanup campaigns on special occasions such as World Environment Day (June 5, 2024).
- Awareness drives with the Chumphon Provincial Fisheries Office, including the campaign "Do Not Eat, Catch, Buy, or Sell Small Blue Crabs."
- Community-based celebrations honoring the King and Queen Mother, linking conservation with Thai cultural heritage.

To raise public awareness, promotional videos were produced and shared on social media platforms (Facebook and TikTok), showcasing the connection between local culture, marine conservation, and sustainable tourism. Local entrepreneurs also developed "Blue Crab Gyoza", a new food product derived from sustainably harvested crabs, now distributed by Blue Crab Bank networks in Chonburi and Chumphon. The production process and recipe were transferred to community tourism enterprises on Koh Sichang and Chia Farm in Mueang Chumphon.

In addition, researchers developed Photosynthetic Microbial Fertilizer made from blue crab residues, proven effective for non-toxic hydroponic vegetable cultivation at low cost. The project's educational impact led to Lamae Wittaya School in Chumphon being recognized as a model school for integrating marine science and national maritime interests into its 2024 curriculum.

Education to support Life Below Water

Faculty of Environmental Management, Faculty of Science, Faculty of Natural Resources, Faculty of Technology and Environment, and Faculty of Science and Technology provide several study programs that support SDG14 (Life Below Water). This includes B.Sc., M.Sc., and Ph.D. programs in Biology, M.Sc. and Ph.D. programs in Marine and Coastal Resources Management and M.Sc. and Ph.D. programs in Environmental Management, B.Sc., M.Sc. and Ph.D. programs in Aquatic Science, M.Sc. and Ph.D. programs in Earth System Science, B.Sc. and M.Sc. programs in Environmental Technology Management and B.Sc. program in Marine Science and Coastal Management, B.Sc. program in Fishery Technology and Innovation, M.Sc. program in Fishery Science and Technology, and M.Sc. program in Community Ecotourism Management.

The General Education (GE) course "Disrupted Sea" is offered to undergraduate students. Core and elective courses, such as Climate Change and Ecosystem, Coral Reef Management, Advance and Innovation in Conservation and Rehabilitation of Fishery Resources, Integrated Marine and Coastal Resources Management, Sustainable Watershed Management, Sustainable Development Goals, Innovative Wastewater Management, Sustainable Innovative Water Management, Disaster Management, Marine Conservation Diving, Ecology and Diversity of Tropical Reef, Phycology, Plant Ecophysiology, Physiological Ecology of Marine Animals, Aquatic Ecology, Marine Ecology, Chemical Oceanography, Coastal Process and Impact, Freshwater Resources Management, Coastal Community-Based Management and Sustainability, Coastal Resources Management, Spatial and Temporal Analysis for Marine and Coastal Management, Biology for Sustainable Marine and Coastal Tourism, are offered to undergraduate and postgraduate students.

Students' thesis in these programs also supports SDG14 (Life Below Water). Several students projects are on marine and freshwater biology and ecology, oceanography, and water technology and management, such as, seagrass and mangrove classification using AI and remote sensing, Effect of hypoxia and ocean acidification on corals, Effect of elevated temperature on seagrass, Microplastic contamination in Utapao Canal, Songkla, Water management in sub-lake basin Klong Ang Tak, Songkhla, Development of granular sludge for wastewater treatment. Several students work on the coastal tourism, such as, development of crab bank activity to creative tourism in Songkla, Community participation pattern for tourism management in Pattani Bay, Development of green hotel in Lanta Island, Krabi, Community tourism management in Morgan ethnic in Surin Islands, Pangna, Comnunity tourism management in Pak Poon, Nakhon Srithammarat, Low carbon tourism in Satun Geo Park.

Workshops, training, conferences, public seminar, public talk to support Life Below Water

An increase in knowledge sharing among researchers and between researchers and general public is very important in capacity building on sustainability of marine, freshwater and coastal ecosystems. National, international, virtual and on-site seminars, talks workshops, training courses and conferences on climate change and marine environment were organized by PSU such as

- Assoc. Prof. Dr. Mathinee Yucharoen organized a training on the topic "Coral reef ecosystems and sustainable utilization" for volunteers of the National Park, Wildlife, and Plant Conservation Department in Thepha community. (26 September 2024)
- Assoc. Prof. Dr. Mathinee Yucharoen served as a speaker for a special seminar and workshop on "Coral Reef Resilience" at the Institute of Oceanography and Environment, Universiti Malaysia Terengganu (UMT). (18 August 2024)
- Public talk and provided academic knowledge on "Koh Kham's underwater ecosystem and coral reef conservation" in Koh Kham Conservation Day 2024. (5-7 August 2024)
- Assoc. Prof. Dr. Mathinee Yucharoen organized a workshop on "Coral health and restoration along Thai-Malaysia Peninsula".
- Asst. Prof. Dr. Prakrit Noppradit joined the SATREPS project to conduct research on "Marine debris in the Gulf of Thailand" (3-9 April 2024) in the MV SEAFDEC2 ship.
- Asst. Prof. Dr. Prakrit Noppradit provided an interview to the public media on the topic of "Marine debris and microplastics".
- Assoc. Prof. Dr. Ponlachart Chotikarn served as a lecturer and provided knowledge and guidance on research development during the training program "Research in Marine and Coastal Resource Management Based on the Blue Economy Concept". (25 to 27 November 2024)
- Assoc. Prof. Dr. Theerakamol Pengsakul was honored to serve as a keynote speaker on the topic "Monitoring Evaluation of the Artificial Coral Reef House Project Using Electrical Insulators: A Pilot Study in Pattani and Narathiwat Provinces, Southern Thailand" at the 2024 Maritime Silk Road International Conference on the Cooperation and Integration of Industry, Education, Research, and Application. (5-9 November 2024)

- The Geographic Information Center for Natural Resources and Environmental Management, Faculty of Environmental Management, organized a training program on “Geoinformatics for Sustainable Development (SDGs): Tools for Monitoring and Planning in the Songkhla Lake Basin”. (5 September 2024)

PSU-TUYF Charitable Trust Fund to support Life Below Water

PSU-TUYF Charitable Trust Fund provide funding in a total of 19,900,000 Thai Baht to support research projects on exploring marine coastal resources for sustainable utilization and management in southern Thailand with a particular emphasis on seagrass-dugong, coral reef and mud crabs. Principle investigators, Prof. Anchana Prathep, Assoc.Prof. Sukree Hajisame, and Asst.Prof. Mathinee Yucharoen lead projects: 1) Monitoring and assessment of dugong feeding area and networking for seagrass and dugong research, 2) Some aspects on the ecology, biology and fisheries of four mud crab species (Scylla spp.) and 3) Coral reef biodiversity conservation and connectivity in southern Gulf of Thailand to support reef resilience and sustainable use, respectively.

Monitoring Seagrass Ecosystem Health: A Nature-Based Solution for Climate Change

Assoc. Prof. Ponlachart Chotikarn, leading the project "The Feasibility and Efficiency Enhancement of Seagrass Species for CO_2 Sequestration in Thailand," is conducting essential work to monitor the health of the seagrass ecosystem in the Andaman Sea as a crucial nature-based solution to climate change. Supported by the Electricity Generating Authority of Thailand (EGAT), this two-year initiative focuses on the seagrass beds around Pu Island, Krabi.

The project integrates advanced science and technology to monitor and enhance the health of the seagrass ecosystem. Comprehensive studies were conducted on factors affecting seagrass survival, which led to a deeper understanding of the overall ecosystem's health and resilience. The research rigorously analyzed seven local seagrass species to identify the most effective for carbon sequestration. Monitoring this "blue carbon" capacity is a direct measure of the ecosystem's ecological function and its vital role in climate change mitigation. A new, low-cost, solar-powered nursery system was engineered to improve seagrass growth and survival rates. The project's entire structure is designed to restore marine ecosystems while simultaneously empowering the local community to become long-term stewards.

Monitoring the health of the aquatic ecosystem in the Gulf of Thailand

Asst. Prof. Dr. Prakrit Noppradit, a researcher from the Coastal Oceanography and Climate Change Research Center at PSU's Faculty of Environmental Management (PSU-FEM), represented the institution in this crucial SATREPS project. This was the core focus of a collaborative research expedition on Marine Debris, conducted aboard the MV SEAFDEC2 from April 3-9, 2024.

The research directly contributes to ecosystem health assessment through a wide partnership, including the Center of Ocean Plastics Studies at Kyushu University, Chulalongkorn University, and key Thai government bodies: the Department of Fisheries, the Department of Pollution Control, and the Department of Marine and Coastal Resources.

15 LIFE ON LAND

LIFE ON LAND

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Related Policies

Prince of Songkla University (PSU) has been driving sustainable development by promoting growth and management of the physical, environmental, and knowledge sectors according to the United Nations' Sustainable Development Goals (SDGs), which consist of 17 goals. Utilizing the authority under Sections 34 and 39 of the Prince of Songkla University Act, B.E. 2559 (2016), the university has announced its policy on the environment and conservation of biological resources to promote, support, and advance sustainable development as follows.

1. Conduct operations with consideration for the conservation, restoration, and sustainable use of terrestrial and aquatic ecosystems, including forests, mountains, caves, drylands, wetlands, freshwater, brackish water, seas, and wildlife.
2. Support projects aimed at identifying, monitoring, and protecting the biodiversity of plants and animals at risk of extinction, particularly those on the IUCN Red List and species protected under the Plant Act, B.E. 2518 (1975), and the Wildlife Conservation and Protection Act, B.E. 2562 (2019).
3. Establish measures to control and manage invasive alien species and conflict species within the university.
4. Preserve natural green spaces, take care of existing trees, and promote additional tree planting within the university, aiming to increase carbon dioxide sequestration from trees by at least 10% of the base year greenhouse gas emissions by B.E. 2569 (2026).
5. Support collaboration with local communities, networks, agencies, and educational institutions, both domestically and internationally, for the conservation, restoration, and sustainable use of biological resources through the participation of all sectors.

New Species Discovered by PSUNHM Researchers Sheds Light on the Hidden Life of Mangroves of peninsular Thailand

Two new species of long-legged flies have been discovered in the mangrove forests of Thailand and Singapore, marking a significant contribution to the understanding of lesser-known insect biodiversity in Southeast Asia. The discovery was led by Dr.Abdulloh Samoh, researcher at the Princess Maha Chakri Sirindhorn Natural History Museum (PSUNHM), in collaboration with Dr.Patrick Grootaert of the National Biodiversity Centre, NParks Singapore, Lee Kong Chian Natural History Museum, and the Royal Belgian Institute of Natural Sciences (RBINS). Despite being top insect predators in mangrove ecosystems, helping control populations of mosquitoes and midges, long-legged flies (Dolichopodidae) remain one of the least studied insect groups in the region. The two new species described (Hercostomus obtusus and Hercostomus squamatus) were found in the coastal mangroves of Phang Nga and Satun provinces, underscoring the importance of these habitats for hosting biodiversity still unknown to science.

"Every new species is a reminder that life on land, even in places as familiar as our coasts, holds secrets yet to be revealed," says Dr.Abdulloh Samoh. This discovery adds to Thailand's known insect diversity and highlights the critical role of mangroves as biodiversity hotspots, especially for organisms that are underrepresented in conservation planning. It also reflects the importance of international collaboration in documenting, understanding, and ultimately protecting life on land.

PSUNHM Researchers Study Vulnerable Wildlife on Koh Phrathong to Support Long-Term Conservation

Researchers from the PSUNHM have launched a long-term ecological study on Koh Phrathong, a unique island on Thailand's Andaman coast known for its rich but fragile biodiversity. The project focuses on monitoring wildlife populations and understanding ecosystem dynamics, particularly for species that are ecologically important and culturally significant to local communities. These include large herbivores, wetland birds, and seasonal aquatic plants, all of which depend on the island's sensitive and changing habitats. The research team emphasises that effective conservation cannot happen in isolation. It requires collaboration between scientists, local authorities, and, most importantly, the island's resident communities, who play a vital role in protecting the resources they live alongside. Through fieldwork, knowledge exchange, and community engagement, PSUNHM aims to support a shared path toward biodiversity conservation and sustainable living.

Learning Is Saving: PSUNHM Day & Night Programs at Khao Kho Hong

Throughout 2024, the PSUNHM organised a series of special educational programs with students from several schools. Under the theme "Learning Is Saving", these programs formed part of the Kho Hong Study, offering immersive nature-based experiences that highlight the importance of conservation and urban green spaces. During the day, participants were guided along the Khao Kho Hong Nature Trail and took part in five interactive learning stations designed to foster ecological awareness and conservation thinking: Heat Island - exploring microclimates and the warming effectRoot adaptations, understanding how plants adapt to environmental challenges, Water Bank - recognising the role of forests in retaining and regulating water, Oxygen Producers - learning how plants contribute to the earth's life support, People Need Forests, Forests Need People - reflecting on the human-nature interdependence, building on these daytime activities, PSUNHM also introduced Night Walks at Khao Kho Hong. These evening sessions invited students and the public to experience the forest after dark, listening to nocturnal sounds, observing night-active insects and other wildlife, and learning about the hidden biodiversity that thrives when the sun sets. The Night Walk complemented the day program by offering a unique perspective on ecosystem processes and the role of darkness in maintaining biodiversity. Through these combined day and night activities, students gained close exposure to local biodiversity and ecosystem services, reinforcing the importance of urban green spaces like Khao Kho Hong in supporting life on land.

PSUNHM Summer Nature Camp 2024: Learning Through Wonder and Play

This year's Summer Nature Camps 2024, hosted by the PSUNHM, welcomed young learners to a fun-filled program designed to inspire creativity, curiosity, and self-growth. Through hands-on activities rooted in natural science and art, participants enjoyed a rich learning experience in a tourism-linked learning environment. Activities included:

Shell Sleuth - become a mollusc explorer
OHIGLOW - discover the glowing magic of butterflies
Among Ants - observe the world from an ant's-eye view
Nature of Arts - mix nature and creativity
Walk Rally & Bird Watching - play and learn with birds and nature

In addition, campers enhanced their language skills through special English and Chinese sessions led by faculty and language instructors from PSU. Every activity was guided by real scientists and researchers, providing campers with a rare opportunity to learn directly from experts in natural history and biodiversity.

PSUNHM Strengthens Regional Bat Conservation Efforts Through Collaboration in India

In April 2024, Dr.Pipat Soisook, mammalogist and curator at the PSUNHM, contributed to strengthening regional bat conservation by joining as an invited speaker at the "Bat Taxonomy, Acoustics, and Biogeography" workshop, hosted by the Kerala Forest Research Institute in India.

The workshop brought together early-career researchers, students, and conservationists across India, creating a rare opportunity for cross-border exchange and field-based learning. In his presentation, Dr.Soisook shared insights from Southeast Asia, highlighting both the remarkable bat diversity of the Indo-Malayan region and the growing threats to their survival – including habitat loss, data deficiency, and lack of regional coordination.

He also led a hands-on training session on field techniques and specimen preparation, providing participants with foundational tools for studying and conserving bat species in their own localities. This contribution reflects PSUNHM's commitment to building transboundary research networks and advancing conservation through science and education.

By empowering researchers, connecting institutions, and inspiring the next generation of bat scientists, PSUNHM continues to lead efforts toward the long-term conservation of bats and their ecosystems, in alignment with global biodiversity

PSUNHM contributed to the International Workshop on Zoonotic Disease Surveillance and Biodiversity Monitoring

Between May 26 and June 1, 2024, researchers from the PSUNHM participated in an international training workshop at Mahidol University's Tropical Disease Research Centre, focusing on genomic tools for tropical disease surveillance.

PSUNHM researchers, Dr.Pipat Soisook and Dr.Abdulloh Samoh, led field sessions on bat and bat fly sampling, emphasising how wildlife monitoring contributes not only to zoonotic disease prevention but also to biodiversity conservation. Bats, as ecologically vital species, serve as indicators of ecosystem health and early warning for pathogen spillovers. This collaboration underscores PSUNHM's commitment to integrating wildlife research, public health, and conservation within the One Health framework, fostering cross-border cooperation for a healthier planet.

Citizen Science in Action: Hat Yai's Urban Nature Explored Through City Nature Challenge 2024

From April 26-29, 2024, the city of Hat Yai joined over 800 cities worldwide in the City Nature Challenge (CNC2024), a global initiative aimed at engaging the public in documenting urban biodiversity through citizen science. This annual event empowers everyday people to become nature observers, using platforms like iNaturalist to record the species they encounter in their cities, backyards, and parks.

This year, Hat Yai City, led by PSU staff, contributed remarkably, with 1,805 wildlife observations and 634 species recorded by 24 participants, reinforcing the value of grassroots biodiversity monitoring even in rapidly developing urban spaces.

The most frequently recorded species in Hat Yai were the Asian Openbill, Southern Green Crested Lizard, Long-tailed Macaque, Crested Myna, and Greater Short-nosed Fruit Bat. These species are well adapted to urban or peri-urban environments. More significantly, the survey documented 15 species classified as threatened, including rare sightings of the Black Giant Squirrel, Oriental Darter, and Crested Goshawk. The presence of these species, which are seldom observed in urban areas, underscores both the ecological richness and the vulnerability of Hat Yai's local ecosystems.

Beyond numbers, the CNC2024 in Hat Yai reflected a growing awareness of urban nature and the important role that local communities play in monitoring, valuing, and protecting biodiversity. Such events not only generate valuable ecological data but also foster a deeper public connection with nature, an essential foundation for promoting long-term conservation in rapidly urbanizing areas.

PSU Drives Community-Based Conservation Efforts with RSPG Training Courses

PSU, by the Plant Genetic Conservation Project - Southern Region Coordinating Center, organized annual training programs on the Plant Genetic Conservation Project in southern Thailand. These courses, inspired by the initiative of Her Royal Highness Princess Maha Chakri Sirindhorn (RSPG), empowered local communities and schools with knowledge and skills to document, sustainably utilize, and manage natural resources.

Farmer Capacity Development for Sustainable Land Use and Livelihoods

In 2024, in alignment with the government's debt moratorium policy for farmers, the Bank for Agriculture and Agricultural Cooperatives (BAAC), in partnership with PSU, Pattani Campus, implemented the Project for the Rehabilitation and Capacity Development of Debt Moratorium Clients. The initiative operates under the development framework "3 Reductions, 3 Increases, 3 Creations - Market-led, Innovation-enhanced, Income-generating," aiming to strengthen farmers' resilience, enhance sustainable land use, and promote self-reliant agricultural practices.

The project focuses on building the capacity of farmers to sustain their primary occupations while developing supplementary sources of income. Core objectives include reducing production costs, minimizing post-harvest losses, mitigating agricultural risks, increasing productivity and income, and improving product quality and standards. The program also encourages the application of technology, innovation, knowledge, and local wisdom to advance sustainable and environmentally responsible farming practices.

Examples of Training Programs include:

- Curriculum on Building Awareness, Financial Discipline, and Developing Supplementary Occupations for Income Generation
- Curriculum on Plant Propagation, Crop Cultivation, and Agricultural Production Technology in local farming areas of Pattani Province

These programs are designed through integrated collaboration among PSU, BAAC, and local partners to address real community needs. The initiative provides technical knowledge, skilled trainers, and local learning resources, promoting vocational education that reflects the local way of life and is guided by the Philosophy of Sufficiency Economy.

Linking Geo-Biodiversity and Sustainable Tourism: Phatthalung Fossil Festival

The Mobile Museum Outreach Initiative, organized by the PSUNHM and the Southern Thailand RSPG Coordinating Centre, under the theme "The Marvels of the Ancient Ocean–200 Million Years Past," was held from 5 to 7 April 2024 at Khao Chiak, Mueang District, Phatthalung Province. The primary objective of this outreach initiative was to enhance public understanding of natural history, with a special focus on the Triassic geology and fossil records of Phatthalung Province, a site of international geological significance. The program aims to raise local awareness of geological and paleontological resources through exhibitions, educational panels, and interactive outreach activities, thereby providing valuable knowledge to communities, local authorities, educational institutions, and government agencies. This initiative also demonstrates the important function of the PSUNHM as a "living classroom of natural sciences" for the people of southern Thailand. It promotes a proactive approach to natural heritage conservation and supports the proposal to designate Phatthalung Province as both a local and national geopark. This effort supports SDG 15: Life on Land, which aims to protect, restore, and use land and geological ecosystems in a sustainable way, so that our natural heritage can benefit future generations. On 24-25 July 2024, the PSUNHM and its Southern Thailand RSPG Coordinating Centre joined with the Department of Mineral Resources, Phatthalung Province, and a wide network of local partners to host the Phatthalung Fossil Festival at the 500-Million-Year Fossil Hall in Makok Nuea Subdistrict.

The festival showcased how geological heritage and biodiversity conservation can be integrated with community-based eco-tourism. Activities included expert panels, exhibitions, hands-on fossil learning, local product displays, and a field excursion, "From Thale Noi to the Ancient Sea," linking wetland ecosystems, fossil sites, and community livelihoods.

By uniting government agencies, academic institutions, municipalities and community leaders, the festival promoted knowledge sharing and public awareness of geodiversity and biodiversity, sustainable use of local resources, and appreciation of natural heritage. This approach reflects the goals of SDG 15: Life on Land, conserving terrestrial ecosystems and their cultural values while creating creative and sustainable development opportunities for Phatthalung.

Biology Club Launches Inaugural Birdwatching Camp in Collaboration with Chana Power Plant to Encourage Local Community to Conserve Habitat for Birds

Each year, the Biology Club, a student organization within the Faculty of Science, organizes social engagement activities dedicated to conserving shared ecosystems. The club collaborates with local agencies to develop educational programs that inspire young people to understand and appreciate their natural resources.

In 2024, in partnership with the Chana Power Plant, the Biology Club hosted the inaugural "Birdwatching Camp" at the plant and its surrounding areas. Over 30 students from local schools participated in this two-day event, engaging in a variety of activities. Participants learned about not only birds but also lichens, invasive species, and climate change through interactive sessions. Several games were included to help them grasp ecological dynamics more effectively. The students also had the opportunity to experience their first birdwatching excursions across different habitats. These activities foster a deeper understanding of the importance of land ecosystems shared by local communities and highlight the significance of environmental stewardship.

The Chana Power Plant is located on a coastal plain bordered by villages and wetlands. The surrounding landscape is semi-natural, with local communities actively engaged in agriculture while preserving patches of untouched land and natural habitats. The plant is committed to conserving the ecosystems within and around its boundaries to foster a sustainable and livable environment for both staff and local residents.

Strategic Approaches to Advancing Community Forest Management in Collaboration with the Leadership and Team of the Khok Pho Self-Help Settlement and Local Communities under the “Nikhom NEXT” Project

A team of academics from PSU, Pattani Campus, collaborated with local leaders, the Khok Pho Self-Help Settlement team, and the community to develop strategic approaches for managing community forests under the “Nikhom NEX” project.

This initiative aims to promote sustainable community forest management in accordance with relevant forestry laws, regulations, guidelines, and plans. The community plays a central role in conserving the forest for communal benefit, ensuring ecological richness, and promoting long-term, equitable, and sustainable use of forest resources.

The project is grounded in local wisdom, belief systems, community ideologies, and the recognition of community rights. It emphasizes moral principles and the importance of securing local livelihoods. Ultimately, the project aspires to become a recognized model that generates broad and meaningful impacts.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

PEACE, JUSTICE AND STRONG INSTITUTIONS

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Prince of Songkla University (PSU) is committed to advancing the United Nations Sustainable Development Goals (SDGs) through education, research, and community engagement that promote peace, equality, and good governance.

Among these global goals, SDG 16: Peace, Justice, and Strong Institutions serves as a fundamental pillar of PSU's vision to foster social harmony, uphold justice, and strengthen institutional integrity at both national and regional levels.

PSU's policies under SDG 16 focus on developing inclusive, transparent, and accountable institutions, while nurturing a culture of lawfulness, respect for human rights, and participatory governance. The University integrates these principles into its academic programs, research projects, and social outreach activities to ensure that the rules of law and justice are accessible to all.

Through these comprehensive efforts, PSU demonstrates its determination to be not only an academic institution but also a model of peace, justice, and ethical governance. By linking research, policy advocacy, and civic participation, the University continues to contribute to peacebuilding and social sustainability, embodying the true spirit of SDG 16.

Southern Border Conflict and Peacebuilding

In 2024, PSU through the Institute for Peace Studies (IPS) and various faculties continued to play a leading role in promoting peace and justice in Thailand's southern border provinces. Key initiatives included:

- **"Public Consultation for Peace in the Deep South/ Patani"**
  A public hearing was jointly organized by the Parliamentary Commission on Peace in the Southern Border Provinces, PSU's Center for Conflict Studies and Cultural Diversity (CSCD), and the Faith-based Community Building Association. Citizens, local leaders, and civil society organizations shared insights on inclusive peace processes and human rights protection.
- **"Peace Agenda: Reviewing Stakeholders' Proposals for Public Consultation in the South"**
  A multi-stakeholder workshop was held in Pattani and Hat Yai by IPS-PSU and the Peace Collaboration Foundation. The event gathered academics, religious leaders, local politicians, and foreign experts from Uppsala University and Stockholm School of Economics to discuss good practices in peace consultations in conflict areas.
- **"Peace Laws in the Southern Border/Patani: Review, Challenge, and Direction"**
  Organized by CSCD-PSU with the Faith-based Community Building Association and supported by the EU, this forum discussed legislative frameworks that could support long-term peace in the region.
- **"Mother Tongue-Based Multilingual Education in the Deep South: Opportunities and Challenges"**
  Co-organized by the Parliamentary Committee on Peace, the Embassy of Switzerland, and IPS-PSU, this national-level workshop highlighted the significance of mother tongue education as a foundation for peace and inclusive learning in multicultural areas.

- **"Workshop on Reviewing the Enforcement of Security Laws in the Southern Border Provinces"**
  IPS-PSU, together with the National Human Rights Commission (NHRCT) and King Prajadhipok's Institute, hosted this workshop to evaluate the use of national security laws and propose human rights-based reforms. Over 100 participants from civil society, state agencies, and academia took part.
- **"International Conference on Peacebuilding and Development in Southeast Asia 2024 (PDSEA 2024)"**
  Hosted by IPS-PSU in collaboration with APISA, SouthPSPA, Naresuan University, and international partners, students from the Master's in Conflict Studies presented research on peace education, religious victimization, and constitutional conflicts in Myanmar.

Collectively, these initiatives demonstrate PSU's continued leadership in peace education, inclusive dialogue, and evidence-based policymaking.

Governance, Elections, and Civic Participation

Promoting democratic values and responsible citizenship is central to PSU's SDG 16 agenda. Activities in 2024 emphasized civic awareness, dialogue, and political participation.

- **"Becoming a Senator: Thailand's Turning Point 2024"**
  A collaborative training was organized by the Nation-Building Institute and PSU's Faculty of Management Sciences to prepare aspiring Senate candidates from the southern provinces. The event featured lectures by Assoc. Prof. Dr. Kayanee Boonpan and Dr. Sirivit Issaro, engaging over 80 participants.
- **Public Forum "Past, Present, and Future of the Senate"**
  A civic discussion involved academics from Thammasat and PSU, civil society leaders, and iLaw representatives. The dialogue encouraged constructive citizen participation in Thailand's 2024 Senate election under the theme "Participation for Change."

Human Rights, Justice, and Law Reform

The event reflected PSU's commitment to using legal knowledge for social problem-solving and promoting community-level justice and resilience. PSU continued to advance access to justice, legal literacy, and equality under the law.

- **"Mediation Before Filing: The First Resort for the People"**
  A collaboration between the Surat Thani Provincial Court and the Public Administration Program, PSU Surat Thani Campus, promoted alternative dispute resolution to reduce litigation burdens.
- **Empowering Persons with Disabilities through Vocational Training Programs**
  During June 10 - September 30, 2024, the Office of Human Resource Development and Social Engagement, PSU, implemented the Professional Training Program for Persons with Disabilities (Batch 1) under the curriculum "Office Administrator." The program was designed to enhance the employability and professional readiness of people with disabilities, enabling them to access decent work opportunities in both public and private sectors.

The training, conducted free of charge, provided participants with a daily allowance, lunch, learning materials, and a certificate of completion. The 450-hour course combined classroom instruction with practical internship experience, allowing trainees to develop essential office administration skills, confidence, and self-reliance. The program also facilitated job placement by collaborating with private enterprises and partner organizations, creating a direct pathway from training to employment.

This initiative is part of the national collaborative project "Higher Education Network for Persons with Disabilities (Higher Ed for PWD)," supported by the Department of Empowerment of Persons with Disabilities (DEP) under the

Ministry of Social Development and Human Security and funded by the Fund for Empowerment and Development of the Quality of Life of Persons with Disabilities. The project brings together six universities–King Mongkut's University of Technology Thonburi (KMUTT), King Mongkut's Institute of Technology Ladkrabang (KMITL), Chiang Mai University, Khon Kaen University, Suan Dusit University (Suphanburi Campus), and PSU, working collaboratively to enhance the quality of life, education, and employment opportunities for persons with disabilities across Thailand. Through this program, PSU demonstrates its firm commitment to promoting social inclusion, equality, and institutional responsibility in alignment with SDG 16.B; promoting and enforcing non-discriminatory laws and policies for sustainable development.

PSU Law Clinic

PSU Law Clinic provided legal counseling and organized public legal education sessions. Topics included:

- "Gender Recognition and Legal Identity in Thailand: Can We Determine Our Gender by Ourselves?"

  The event brought together representatives from various sectors, including the Faculty of Law, the Transgender Association of Thailand, and the Human Rights Foundation, to discuss the right to self-determination in gender identity and the legal recognition of gender diversity in Thailand.

  This seminar underscored the importance of legal reform toward gender self-identification, allowing individuals to determine their own gender identity without medical or institutional barriers. It highlighted the role of law and education in promoting equality, dignity, and respect for all people regardless of gender. The discussion contributed to the national dialogue on the forthcoming Gender Recognition Act, aiming to ensure inclusivity and protection for LGBTQIA+ persons in Thai society.
- "Kin Niew Gai Laeng Kotmai: PSU Law to the Hatyai Municipality - Drug Problems and Legal Solutions"

  The event was part of the "PSU Law for Society" outreach series aimed at expanding legal literacy and public participation in justice-related issues. This dialogue created a safe and open space for community members, law lecturers, and students to exchange perspectives on Thailand's current drug situation, structural causes of addiction, and sustainable legal approaches to prevention and rehabilitation. Participants discussed the balance between law enforcement, rehabilitation, and community participation in addressing the drug crisis. The Clinic also partnered with local schools and communities to expand pro bono services and human rights education.

Academic Collaboration and Knowledge Integration

PSU fosters multidisciplinary collaboration to strengthen institutions and policy development:

- **Workshop for Civil Society Capacity Building in the Southern Border Provinces**

  Co-organized by IPS PSU, Chulalongkorn University, Mahidol University, Fatoni University, and SBPAC to develop curricula and enhance civil society organizations' capacity for participatory governance.

In 2024, PSU implemented over 20 activities and projects advancing peace, justice, and institutional strength, covering:

- Conflict resolution and peace education
- Democratic participation and governance reform
- Access to justice and law-related education
- Equality, inclusion, and human rights advocacy
- Academic collaboration and data-driven policymaking

Through these sustained efforts, PSU continues to serve as a leading academic institution for peace, justice, and inclusive governance, embodying the spirit of SDG 16: Peace, Justice, and Strong Institutions.

17 PARTNERSHIPS FOR THE GOALS

PARTNERSHIP FOR GOALS

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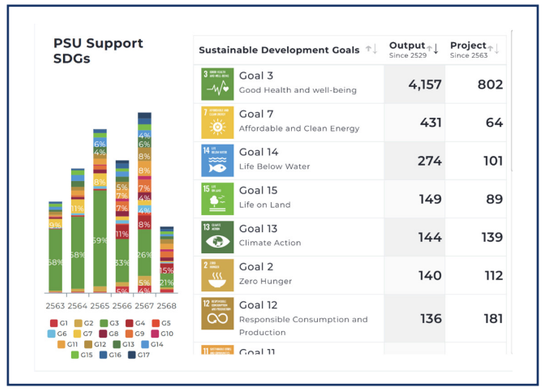
PSU's pledges to sustainability

Prince of Songkla University (PSU), guided by the enduring motto "Our Soul is for the Benefit of Mankind," has continuously advanced its mission to foster sustainable development through knowledge, innovation, and partnership. The university recognizes that meaningful progress toward the Sustainable Development Goals (SDGs) cannot be achieved through isolated efforts; it must be realized through networks of cooperation that connect academia, government, industry, and civil society. Within this framework, PSU has made SDG 17, Partnership for the Goals, a central element of its institutional strategy. The university views partnership not as a single program, but as an ongoing process of shared learning, co-creation, and collective responsibility for the well-being of people and the planet.

Examples of PSU's on Sustainability Policies

In 2024, PSU's development strategy was further refined to align with the call for inclusive and effective partnerships that mobilize knowledge, expertise, technology, and financial resources. Through the integration of sustainability principles into every aspect of its operations, PSU strives to act as a bridge between local action and global vision. It positions itself as a regional model of how higher education institutions can catalyze change by fostering cooperation across all sectors. The university's Policy on Partnerships for Goal centers on four interdependent pillars: institutional policy development, participatory governance, academic innovation, and multi-level collaboration. Together, these elements form a coherent and measurable framework for advancing sustainable development both within and beyond the institution.

The foundation of PSU's sustainability journey lies in its strong institutional policies. The university has developed a comprehensive policy framework that integrates environmental protection, social equity, and economic responsibility. These policies are not merely administrative tools but represent the university's moral and strategic commitments to the global sustainability agenda. PSU's policies address critical dimensions such as energy efficiency, biodiversity conservation, plastic reduction, waste management, academic freedom, green procurement, sustainable food systems, and the achievement of net-zero greenhouse gas emissions by 2030. Importantly, these policies are designed not only for internal governance but also to shape partnerships and influence the behavior of stakeholders outside the university.



Sustainable Development Goals	Output Since 2529	Project Since 2563
Goal 3 Good Health and well-being	4,157	802
Goal 7 Affordable and Clean Energy	431	64
Goal 14 Life Below Water	274	101
Goal 15 Life on Land	149	89
Goal 13 Climate Action	144	139
Goal 2 Zero Hunger	140	112
Goal 12 Responsible Consumption and Production	136	181
Goal 11		

For instance, **the Energy-Efficient and Low-Carbon Building Policy** ensures that all new constructions and renovations comply with sustainable design principles, including the use of renewable materials and technologies that minimize carbon emissions. This policy has guided the design and implementation of laboratories, dormitories, and offices, leading to a measurable reduction in energy consumption across campuses. The Environmental and Biodiversity Conservation Policy reinforces PSU's responsibility to protect the natural ecosystems that surround its five campuses. The university collaborates with local authorities, schools, and NGOs to restore mangrove forests, rehabilitate wetlands, and conserve species listed under the IUCN Red List. Through these projects, PSU has transformed its campuses into living laboratories for sustainability research and education.

The Green Space Conservation Policy ensures that no less than 70 percent of the university's total land area remains as open or green space. This policy supports ecological resilience, reduces the urban heat island effect, and enhances student well-being. PSU's collaboration with Songkhla Municipality has resulted in joint efforts to extend this green campus model to neighboring communities, providing guidance on urban tree planting, green corridor development, and environmental education. Similarly, **the Unused Land Development Policy** encourages the rehabilitation of underutilized areas into community gardens and learning spaces for students, staff and local residents. These projects not only beautify the campus but also promote community engagement.

Equally impactful is **the Plastic Reduction and Foam Ban Policy,** which prohibits the use of foam containers and significantly limits single-use plastics. PSU has replaced them with biodegradable and reusable alternatives, working closely with vendors and local markets to transition to sustainable materials. This initiative extends beyond campus boundaries through public campaigns and collaborative waste management projects with local governments. **The Academic Freedom Policy,** on the other hand, emphasizes intellectual integrity and ethical responsibility, ensuring that PSU remains an open and inclusive platform for scientific collaboration at the national and international levels.

Among PSU's most ambitious commitments is **the Net Zero Emission Policy,** which aims to achieve carbon neutrality by 2030. This policy aligns the university with Thailand's national decarbonization targets and mobilizes stakeholders from government, industry, and academia. To achieve this goal, PSU has established a Carbon Neutrality Roadmap, which integrates renewable energy projects, carbon accounting mechanisms, and sustainability education. Complementing this, the Waste and Hazardous Waste Management Policy applies the principles of the circular economy; reduce, reuse, recycle, throughout the university system. **The Green Procurement Policy** ensures that at least 80 percent of goods and services purchased meet certified environmental standards, creating positive market pressure for sustainability in the wider community. Meanwhile, **the Sustainable Food and Consumption Policy** promotes food safety and environmental responsibility by prioritizing local, organic, and ethically produced food sources.

What makes these policies truly significant is that they are not confined within the institutional walls of PSU. The university actively engages with external stakeholders, from local governments and private enterprises to civil society organizations, in co-designing and implementing these sustainability frameworks. For example, PSU's Green Procurement Policy has inspired local suppliers in the areas of five campuses to seek eco-label certifications, thus raising the standard of sustainable business practices in the region. Similarly, the Waste Management Policy has evolved into a cooperative model with local municipalities, for example, PSU Trang Campus has collaborated with companies, local agencies and foundations in the waste management project on Mook Island and Sukorn Island, Trang province in 2024. The partnerships demonstrate PSU's conviction that universities can and should act as catalysts for systemic change, enabling communities to adopt sustainable behaviors through shared learning and participation.

To translate these policies into action, PSU has developed a strong system of governance that integrates internal decision-making with external collaboration. The university's governance for sustainability is characterized by transparency, accountability, and inclusiveness. The **PSU Carbon Neutrality and Net Zero Emission Steering Committee,** established in March 2024, leads the university's decarbonization strategy. Chaired by the President and composed of senior administrators, deans, and sustainability experts, this committee monitors greenhouse gas inventories, identifies reduction opportunities, and coordinates cross-campus initiatives. It also promotes behavioral change campaigns that engage students and staff in reducing their carbon footprints through energy conservation and sustainable transportation.

Supporting this is **the University Sustainability Policy Advisory Group,** which ensures that sustainability objectives are mainstreamed into all university operations. This group evaluates the alignment of academic programs, research activities, and campus operations with the SDGs. It also prepares the annual PSU Sustainability Report, following international reporting standards such as GRI (Global Reporting Initiative) and the THE Impact framework. Meanwhile, **the Green University Working Group** focuses on operational efficiency and student participation. It implements initiatives such as zero-waste events, campus tree planting, and green innovation challenges that empower young people to become sustainability leaders.

At the provincial and national levels, PSU plays an active role in external governance networks. **The Pattani Provincial SDG Steering Committee,** exemplifies PSU's contribution to localizing the SDGs. As the academic representative, PSU provides technical advice, conducts policy research, and helps align provincial development plans with the UN's 2030 Agenda. In 2024, PSU further strengthened its role by joining the **Five-Dimension SDG Working Group,** a coalition that promotes integrated planning based on the five pillars of sustainable development: People, Prosperity, Planet, Peace, and Partnership. These structures allow PSU to extend its expertise beyond campus boundaries and influence regional sustainability policies.

The effectiveness of PSU's governance structure lies in its balance between centralized leadership and decentralized participation. While top-level committees set strategic directions, faculties and campuses retain flexibility to innovate and tailor initiatives to their contexts. This adaptive governance ensures both consistency and responsiveness as key characteristics of successful sustainability leadership.

PSU's focus on sustainability in education and research

Beyond governance, education stands at the heart of PSU's contribution to sustainable development. The university recognizes that nurturing a generation of responsible, capable, and globally minded graduates is essential for realizing long-term sustainability. To this end, PSU has integrated the SDGs into the structure of its academic programs, ensuring that sustainability is not treated as a separate subject but as an underlying principle embedded across disciplines.

PSU's specialized programs in environmental and sustainability-related fields exemplify this integration. **The Bachelor of Science in Environmental Geoinformatics** at Phuket Campus trains students to apply data analytics and geospatial technologies for environmental management and disaster mitigation. **The Bachelor of Engineering in Environmental Engineering** at Hat Yai Campus focuses on air and water pollution control, waste treatment, and renewable energy systems. The Bachelor of Science in Environment for Sustainability at Surat Thani Campus encourages systemic thinking and stakeholder engagement, preparing students to address sustainability challenges in local and regional contexts. At Pattani Campus, the **Bachelor of Science in Green Industrial Chemistry** develops expertise in sustainable production and green manufacturing.

These degree programs are complemented by general education courses that cultivate civic engagement and social responsibility among students across all disciplines. Courses such as Sustainable Development Goals and Social Responsibility, Active Citizens for Sustainable Development, and Green Consumption for Sustainable Development encourage learners to reflect on their own role as global citizens. As a result, more than 500 courses across PSU were mapped to the SDGs, demonstrating a strong institutional commitment to education for sustainability.

Beyond formal curricula, PSU emphasizes experiential and community-based learning. The "PSU Volunteer Network for Sustainability" mobilizes over 10,000 students annually in activities such as coastal clean-ups, reforestation, and environmental awareness campaigns. Co-curricular programs like the "Youth for Net Zero Challenge" inspire innovation through student-led projects in renewable energy, waste reduction, and sustainable entrepreneurship. Through these programs, PSU creates opportunities for young people to learn by doing – turning theory into tangible action.

PSU extends its sustainability-focused education beyond its own students by offering opportunities for international learners through the Student Mobility Program. At the Pattani Campus, this initiative aligns with PSU's vision to foster global citizenship and intercultural understanding. The program welcomes students from more than 30 partner universities across Southeast Asia, providing them with academic courses related to sustainability, language, and culture. Participants engage in both classroom learning and experiential activities that highlight Thai traditions, local wisdom, and social engagement. Courses such as Coastal Ecology and Conservation, Islamic Social Entrepreneurship, Dynamics and Development of Conflict Resolution in Deep South of Thailand, and Social Engagement in Crisis exemplify PSU's interdisciplinary approach to sustainability and its commitment to inclusive, multicultural education. Through this program, PSU not only enhances the international atmosphere on campus but also strengthens regional academic collaboration and promotes shared learning for sustainable development.

Research related to SDGs at PSU

Equally significant is PSU's research mission. The university believes that research is not merely about generating knowledge but about transforming knowledge into impact. PSU's research strategy aligns closely with national development goals and the UN SDGs, emphasizing interdisciplinary collaboration and community engagement. Its flagship initiatives address issues that cut across economic, environmental, and social domains – from climate change and public health to peacebuilding and inclusive growth.

Among PSU's notable research endeavors is the Integrated Poverty Alleviation Project in Pattani Province. This multidisciplinary program brings together social scientists, economists, public health experts, and engineers to co-create solutions with local communities. By applying participatory research methods, the project has enhanced livelihoods and reduced income inequality across 12 target villages. Another prominent example is the Low-Carbon Rubber Sheet Production Program, which develops sustainable production technologies for southern Thailand's rubber industry, lowering emissions while maintaining competitiveness in global markets.

In environmental innovation, PSU has made significant contributions through its Blue Carbon Research on coastal ecosystems. The university's Marine Science Research Center has documented the carbon sequestration potential of seagrass and mangrove ecosystems, providing evidence that has informed Thailand's national climate policy. Similarly, the Zero Waste Communities Project promotes circular-economy practices in Songkhla Province by developing waste-to-energy technologies and composting systems in collaboration with local governments. PSU's Research and Innovation Office also facilitates partnerships with international agencies to scale up research outcomes, particularly in climate resilience, health systems, and agricultural sustainability.

In 2024, approximately 68 percent of PSU's total research projects were directly aligned with one or more SDGs. SDG 3 (Good Health and Well-Being), SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action) were the most represented, highlighting the university's integrated approach to sustainable development. The impact of this research extends beyond academic publications to real-world applications that improve lives and strengthen communities.

PSU's commitment to glo-cal collaborations and partnerships

The term "glo-cal" combines global and local, emphasizing the integration of worldwide perspectives with community-based actions. It reflects the idea of thinking globally while acting locally, addressing universal challenges through solutions tailored to local contexts. PSU embodies this concept through its strong commitment to glo-cal collaborations and partnerships. The university actively engages with international institutions, research networks, and industries to foster innovation, sustainability, and cultural exchange, while ensuring that these initiatives benefit local communities in southern Thailand and beyond. PSU's partnerships not only enhance global academic and research excellence but also drive regional development, community empowerment, and cross-cultural understanding, positioning the university as a bridge between local needs and global opportunities.

International collaboration plays a central role in PSU's pursuit of excellence. As of 2024, the university maintained 308 active agreements with institutions worldwide, spanning research cooperation, academic mobility, and cultural exchange. These partnerships reflect PSU's belief that global cooperation accelerates knowledge creation and ensures that solutions to local challenges are informed by global perspectives.

The numbers of active MoUs and MOAs between PSU and international partners in 2024

Zone	MOU	MOA
Africa	4	-
Asia	191	30
Europe	50	2
Middle East	5	-
North America	22	1
Oceania	21	-

PSU's internationalization efforts go beyond academic mobility. The university positions itself as a platform for global dialogue on sustainable development, hosting forums, workshops, and summer schools that attract participants from ASEAN and beyond. By doing so, PSU contributes to building the human capital necessary for implementing the SDGs across borders. PSU is currently a member of the following networks:

- AUN: ASEAN University Network
- EACC: East Asia Academic Cooperation Council
- ASEA-UNINET: ASEAN-European Academic University Network
- ASAIHL: The Association of Southeast Asian Institutions of Higher Learning
- IMT-GT UNINET: Indonesia-Malaysia-Thailand Growth Triangle University Network
- ProSPER.Net: The network for the Promotion of Sustainability in Postgraduate Education and Research
- UMAP: University Mobility in Asia and the Pacific
- AsiaEngage: formed by ATNEU, AUN USR&S, and member-universities
- ALNC: Asian Learning Network Council
- S&SE ASIAN UN: South & Southeast Asian University Network
- TGUC: Thailand-Germany Universities Consortium: KU, PSU, KKU, MFU, and CMU, Thailand; &Fraunhofer Institute for Factory Operation and Automation IFF (Fraunhofer IFF), Germany
- THOHUN: Thailand One Health University Network
- SUN Thailand: Sustainable University Network of Thailand
- UNTA: University Network for Tropical Agriculture
- AUAP: Association of Universities of Asia and the Pacific
- ACTU: Alliance of China -Thailand Universities
- SSAMESA: South & Southeast Asia Medical Education and Service Alliance
- IAU: International Association of Universities
- RENPER: Regional Network on Poverty Eradication
- SDSN Thailand: Sustainable Development Solutions Network, Thailand

PSU continues to build a purposeful international presence, using academic partnerships as a lever for sustainable development at home and across the region. Over the past year, PSU deepened collaboration with universities in India, Japan, China, Lao PDR, Viet Nam, and France, relationships designed not only to exchange people and ideas but to co-create solutions that translate research into community impact. An MoU with Martin Luther Christian University in India, for example, opens a new channel into India's northeastern region and establishes networking activities that seed future joint projects. Agreements with NIT Fukui College (Japan), Guilin Medical University (China), universities in the Lao PDR, Institut Universitaire de Technologie de Béziers (France), and Can Tho University of Medicine and Pharmacy (Viet Nam) broaden this ecosystem, enabling faculty, staff, and student exchanges, co-teaching, and joint research as well as PSU's "learning network" for sustainability in action.

That network came alive when PSU Pattani hosted the Regional Network on Poverty Eradication (RENPER), convening institutions from Indonesia, Malaysia, the Philippines, India, and Thailand to align academic strengths with real-world poverty challenges. During the meeting, San Beda University and REVA University signed new MoUs with PSU Pattani, committing to linked curricula, joint research, cultural exchange, and student mobility. A tri-university poverty-reduction initiative is already underway, led by Dr. Ainee Aesadong (PSU Pattani), Asst. Prof. Dr. Issariyaporn Damrongrak (Yala Rajabhat University), and Mr. Weerasak Sojipun (Princess of Naradhiwas University). PSU's contribution–"Leveraging Decision Support Systems (DSS) to Enhance Poverty Alleviation and Integrate with the National Inequality Database"–illustrates how advanced analytics can make social policy smarter and more targeted, turning data into more equitable outcomes.

Beyond convening, PSU's reputation as a practitioner of sustainability was highlighted at San Beda University's International Linkages Week (October 21-25, 2024), themed "Glocal Partnerships / Initiatives / Innovations for Ecological Sustainability." PSU contributed best practices from Social Enterprise for Economic Development (SEED) Thailand, led by Prof. Farok Bin Zakaria, and built on long-standing ties, from the ALN network to RENPER, to advance Education for Sustainable Development across ASEAN.

PSU also stewarded regional higher-education cooperation through "The 4th IMT-GT University Network Council Meeting," bringing together executives from more than 30 institutions in Indonesia, Malaysia, and Thailand. The gathering advanced the Strategic Action Plan for the IMT-GT UNINET, centering collaboration on education, research, and innovation that delivers tangible results for communities. PSU shared a model developed from the Pattani poverty-alleviation program, "Enhance Human Economic and Community Capital for Sustainability", presented by Asst. Prof. Dr. Arooneewan Buaniew, signaling how locally proven approaches can inform regional strategies. Progress on the Implementation Blueprint (2022-2026) and an updated calendar of UNINET activities ensure that commitments translate into shared milestones, transparent follow-through, and cumulative impact.

At the national and local levels, PSU aligned policy, research, and community action to strengthen food systems in Songkhla and the three southern border provinces. Together with ThaiHealth, the Public Policy Institute at

PSU, Pattani Provincial Administrative Organization, NHSO Region 12, and partners, PSU convened a Policy Forum on September 18, 2024, to surface actionable proposals on food security, safety, and nutrition. Contributions from UNDP Thailand and the National Economic and Social Development Council sharpened focus on a "silent crisis": malnutrition among children aged 0-5. With Thailand Policy Lab, PSU helped train representatives from 38 subdistricts in systems thinking and policy innovation, creating local prototypes that improve food and nutrition literacy–an investment in human capital that pays long-term dividends.

Translating innovation into household livelihood gains, PSU Pattani launched "App Tech Khon Tani: Ready-to-Use Technologies," a portfolio of 10 appropriate technologies designed for immediate deployment in homes and communities. From energy-saving biomass stoves and solar-assisted dryers to feed production tools, solar-powered soilless cultivation, and value-added agricultural processes, the initiative targets at least a 20% income increase for poor households and mobility opportunities for 150 households (around 750 people). The technologies are deliberately simple, replicable, and tailored to local conditions and aimed for sustainability as practical problem-solving.

In parallel, PSU and the Pattani provincial government initiated a carbon-credit pilot to accelerate the province's path to Carbon Neutrality and Net Zero greenhouse gas emissions. Guided by PSU's expertise, the collaboration identifies context-appropriate mitigation option as well as renewable energy promotion, solid waste management, afforestation, and community awareness, while building the technical backbone for carbon-credit project development and accounting. PSU is establishing an expert group, conducting localized mitigation research, and delivering training and annual seminars to embed climate literacy both within the university and across Pattani's communities.

Finally, an MoU with the Electricity Generating Authority of Thailand (EGAT) advances "Creating Shared Value (CSV)" as a joint development model. Four pipelines including herbal and plant-based value creation, health and wellness tourism, community workforce upskilling, and health-product/service management, are linked to economic opportunity with social well-being and environmental quality. The cooperation aligns directly with PSU's strategic objectives (SO1, SO2, and SO5) and supports national progress toward the Sustainable Development Goals.

Taken together, these partnerships and programs reflect PSU's theory of change: global linkages that power local solutions; data and policy that sharpen delivery; technologies and skills that increase household resilience; and climate action that creates new value. PSU's sustainability journey is not only a collection of projects, but also a connected ecosystem where academia, government, and communities learn together and act together so that people in Thailand, and across the region, can thrive.

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PSU SUSTAINABILITY REPORT 2024

ADVISORS:
Assistant Professor Niwat Keawpradub, Ph.D.
Assistant Professor Thakerng Wongsirichot, Ph.D.
Assistant Professor Attachai Ueranantasun, Ph.D.

EDITOR:
Associate Professor Klairung Samart, Ph.D.

LAYOUT AND DESIGN:
Phakdee Tuansiri, Ph.D.

CONTRIBUTORS
All Faculties, Colleges, Institutes, Centers, and Offices
Committee of Sustainable Development Goals, Prince of Songkla University
Sub-Committee on Operation and Data Collection for the SDGs,
Prince of Songkla University
Ms. Wilailuk Jongtanaphatsakul

PSU
15 Karnjanavanich Rd., Hat Yai, Songkhla 90110

CONTACT INFORMATION:
Associate Professor Klairung Samart, Ph.D.
Assistant President for Data Analysis
E-mail: klairung.s@psu.ac.th
Tel :+66-(0)7428-8658

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