Annual Report
on SDG17 Partnership for the Goals

Partnerships for Advancing SDG 6: Clean Water and Sanitation

1. Internal University Collaboration

During 2025, Thaksin University strengthened its contribution to SDG 6: Clean Water and Sanitation through coordinated internal collaboration among administrative offices, campus management units, academic faculties, laboratories, research and innovation units, and university staff and students. Rather than treating water management solely as an infrastructure responsibility, the University applied an integrated approach connecting water supply, water-quality monitoring, wastewater management, laboratory capacity development, access to safe drinking water, education, research, community engagement, and emergency response.

This whole-of-university approach enabled academic units to provide technical expertise to support campus operations, while operational challenges created opportunities for research, student learning, laboratory development, and social engagement. The model therefore demonstrates the practical integration of SDG 6 with SDG 17, in which internal partnerships strengthen institutional capacity and increase the effectiveness, sustainability, and social impact of water-related initiatives.

3.1 Participating University Units

The 2025 implementation of SDG 6 involved collaboration among a range of academic and administrative units. Their complementary roles enabled Thaksin University to connect university governance with scientific expertise, infrastructure management, public health, innovation, and community engagement.

Participating University Unit	*Principal Contribution to SDG 6*
Office of Phatthalung Campus	*Management of surface-water catchment areas, internal tap-water production, water distribution, water security, infrastructure maintenance, and environmental management*
Office of Songkhla Campus	*Wastewater management, pond and surface-water management, infrastructure, water-quality surveillance,*

	green-campus operations, and coordination with academic units
Faculty of Science and Digital Innovation	*Scientific water-quality analysis, laboratory services, water sampling and testing, environmental monitoring, and development of laboratory standards*
Water Quality Analysis Laboratory, Faculty of Science and Digital Innovation	*Analytical support for water-quality assurance and development towards internationally recognised testing standards*
Science Park and Social Innovation (SSIP)	*Laboratory-capacity development, innovation infrastructure, coordination and financial support mechanisms for improving water-testing services*
Institute of Academic Service Promotion	*Mobilisation of university resources and provision of drinking water and essential supplies during the 2025 Phatthalung flood emergency*
Faculty of Nursing	*Health-oriented community response and assistance to flood-affected populations as part of the university-wide emergency response*
Faculty of Health and Sports Science	*Academic and public-health expertise related to drinking-water quality, exposure assessment, occupational and environmental health, and safe-water education*
Central administrative and facility-related units	*University-wide coordination of free drinking-water access, maintenance of drinking-water facilities, environmental policy implementation, and sustainability monitoring*
Students, academic staff and university personnel	*Participation in water monitoring, environmental learning, sustainability campaigns, volunteer activities, and emergency community response*

The collaboration between the two campuses and academic units is particularly evident at Songkhla Campus. In February 2025, the Office of Songkhla Campus sought scientific support from the Faculty of Science and Digital Innovation to assess water quality in university ponds, linking campus environmental management directly with university scientific expertise. https://soqd.tsu.ac.th/upload/files/1747126000_5453e1edf9ae14c8.pdf

3.2 Joint Projects and Activities

3.2.1 Integrated Water Supply and Water-Quality Management at Phatthalung Campus

A major collaborative initiative during 2025 was the continued integrated management of the Phatthalung Campus water system. The campus operates a large surface-water catchment system that captures rainfall and runoff and provides raw water for the university's internal tap-water production system.

In October 2025, Thaksin University reported that the system could produce up to 2,400 m³ of tap water per day, or about 876,000 m³ per year, and serve more than 5,000 students, staff members, and university units. The university monitors water quality during production and distribution to support compliance with Ministry of Public Health sanitation requirements.



This initiative demonstrates collaboration between campus infrastructure management, environmental personnel, laboratories, administrative units, and water users. Water management therefore functions not merely as a utility service but as part of the University's broader SDG 6 governance system.

The system also contributes to climate and flood resilience because the campus catchment areas collect rainfall, regulate surface-water flows, and provide raw water for institutional use.

3.2.2 Joint Water-Quality Monitoring at Songkhla Campus

On 25 February 2025, the Office of Songkhla Campus collaborated with the Faculty of Science and Digital Innovation to collect and analyse water samples from the pond adjacent to the lagoon area and the pond behind the 50th Anniversary Building.

The joint assessment measured temperature, pH, water transparency, total dissolved solids, dissolved oxygen, and biochemical oxygen demand (BOD). The University's environmental report recorded that the assessed parameters met the applicable criteria. https://soqd.tsu.ac.th/upload/files/1747126000_5453e1edf9ae14c8.pdf

This activity represents a clear internal partnership in which an operational university unit identified an environmental-management requirement and an academic unit provided scientific expertise and analytical capability. The activity also strengthened evidence-based decision-making for campus water and wastewater management.

The Songkhla Campus simultaneously maintained wastewater-control measures, including grease traps at its two food centres, wastewater-treatment arrangements for buildings, and aeration of receiving ponds to improve water quality. **https://soqd.tsu.ac.th/upload/files/1 7 4 7 1 2 6 0 0 0 _5 4 5 3 e1 edf9 ae1 4 c8 . pdf**

3.2.3 Strengthening the Water Quality Analysis Laboratory towards ISO/IEC 17025

Thaksin University also invested in strengthening institutional capacity for reliable water analysis. During 2025, Science Park and Social Innovation (SSIP) collaborated with the Faculty of Science and Digital Innovation to develop the University's Water Quality Analysis Laboratory towards ISO/IEC 17025:2017 standards.

On 20 August 2025, personnel participated in a laboratory-network and capacity-development programme linked to establishing an ISO/IEC 17025 testing laboratory. The activity formed part of the 2025 Regional Science Park Service Program for strengthening laboratory services.

The collaboration progressed further in November 2025 when SSIP and the Faculty of Science and Digital Innovation jointly undertook a study visit to the Office of Scientific Instrument and Testing at Prince of Songkla University to prepare the water-quality laboratory for ISO/IEC 17025 accreditation. The related 2025 programme received THB 1,120,000 to enhance laboratory capabilities and services to industry and other users.

3.2.4 University-wide Access to Safe Drinking Water

Safe and equitable access to drinking water remains an institutional priority. Thaksin University's free drinking-water programme covers both the Songkhla and Phatthalung campuses and involves collaboration among central administration, campus offices, building managers, maintenance personnel, and academic units.

The University had previously documented 97 drinking-water units across 20 buildings at Songkhla Campus and 83 units serving 18 buildings at Phatthalung Campus, with plans to expand free refill provision to more than 200 points. The University maintains water-filter materials and periodically checks drinking-water quality across academic buildings, administrative buildings, dormitories, and food-service areas.



The University's subsequent institutional reporting also records approval to install 200 drinking-water dispensers during 2024–2025, demonstrating continued investment in free water access while reducing dependence on single-use plastic bottles.

This initiative links SDG 6 to public health and responsible consumption by improving convenient access to drinking water while supporting behavioural change toward reusable containers.

3.2.5 Internal Collaboration for Emergency Drinking-Water Support during the 2025 Phatthalung Flood

Internal SDG 6 collaboration was also demonstrated during the severe flooding in Phatthalung Province in November 2025.

On 21 November 2025, Phatthalung Campus coordinated university administrators, staff, academic personnel and student volunteers through the TSU Sharing Centre ("ศูนย์ปันน้ำใจ ม. ทักษิณ"). The university distributed 230 relief packages to affected communities, including drinking water, food, household necessities, and basic medical supplies.
The Faculty of Nursing also mobilised academic staff and students to support affected communities, demonstrating integration among university management, health expertise, and student volunteering.



On 23 November 2025, the Institute of Academic Service Promotion further supported the university-wide initiative by contributing 150 packs of Thaksina drinking water and helping prepare additional relief supplies through the same university coordination centre.



Although primarily an emergency-response initiative, the activity directly supports SDG 6 because disasters can interrupt access to safe water and sanitation. The University demonstrated its capacity to mobilise multiple internal units rapidly to support safe drinking-water access for affected communities.

3.3 Outputs, Outcomes, and Impact

Internal collaboration generated identifiable outputs at operational, scientific, institutional, and social levels.

Level	Achievements during 2025
Outputs	*Integrated campus water-supply operations; water sampling and laboratory analyses; joint environmental monitoring; continued access to free drinking-water points; development of the water-quality laboratory towards ISO/IEC 17025; scientific capacity-building; and mobilisation of drinking water for flood-affected communities*
Quantifiable Outputs	*Phatthalung Campus tap-water production capacity of up to 2,400 m³/day, approximately 876,000 m³/year, serving more than 5,000 campus users; water-quality monitoring at Songkhla Campus; THB 1.12 million support for laboratory development; 230 flood-relief packages containing drinking water and essential supplies; and an additional 150 packs of drinking water contributed through the Institute of Academic Service Promotion.*
Short- to Medium-term Outcomes	*Improved assurance of safe water for students and staff; evidence-based environmental decision-making; stronger cooperation between operational and academic units; increased analytical capacity; strengthened university preparedness for water-related emergencies; and greater availability of university expertise for external water-quality services*
Institutional Outcomes	*Integration of water management with teaching, research, laboratory services, infrastructure management, health protection and community engagement; development of a shared institutional responsibility for SDG 6 rather than reliance on a single administrative unit*
Environmental and Social Impact	*Contribution to university water security, protection of water quality, reduced risk of pollution, strengthened resilience to water-related disasters, and improved access to safe drinking water for both the university population and communities during emergencies.*
SDG 17 Impact	*Internal partnerships created a stronger institutional platform from which Thaksin University can collaborate effectively with local government,*

	communities, industry, schools and international partners on future SDG 6 initiatives.

From an impact-rating perspective, an important feature is that the relationship between internal collaboration and impact is visible. Infrastructure personnel manage water systems; scientific units verify water quality; research and innovation units build analytical capacity; health faculties support health protection; academic-service units connect university resources to society; and students help implement initiatives. Consequently, the University converts organizational diversity into a coordinated sustainability mechanism.

Rather than measuring SDG 6 success solely by physical infrastructure, Thaksin University's 2025 performance demonstrates the value of institutional capacity, scientific verification, knowledge integration, shared responsibility, and rapid mobilization. These characteristics increase the University's ability to sustain SDG 6 initiatives over time and to scale them beyond the campus.

3.4 Evidence

For the Sustainability Impact Rating submission, I recommend presenting the evidence in an auditable table such as the following.

Evidence	Date	Evidence Demonstrated	Official Source
Songkhla Campus water-quality sampling	*26 Feb 2025*	*Formal campus activity on water-quality analysis*	*Office of Songkhla Campus – Water Quality Sampling*
Songkhla Campus environmental-performance report	*2025*	*Confirms collaboration with Faculty of Science and Digital Innovation on 25 Feb 2025; parameters assessed and results; wastewater-management arrangements*	*Songkhla Campus Environmental Report*
Phatthalung Campus integrated tap-water management	*9 Oct 2025*	*2,400 m³/day capacity; approximately 876,000 m³/year; >5,000 users; internal quality monitoring*	*TSU – Quality Tap Water at Phatthalung Campus*

Water Quality Laboratory capacity development	*20 Aug 2025*	*ISO/IEC 17025 capacity-building for water-quality testing*	*SSIP – ISO/IEC 17025 Laboratory Development*
Joint SSIP–Faculty of Science and Digital Innovation laboratory development	*10 Nov 2025*	*Formal internal collaboration; preparation for ISO/IEC 17025; THB 1.12 million programme*	*SSIP–Faculty Collaboration for Water Laboratory Accreditation*
University-wide flood emergency response	*21 Nov 2025*	*University administrators, staff, Faculty of Nursing and student volunteers; 230 relief packages including drinking water*	*TSU Flood Relief Initiative*
Institute of Academic Service Promotion flood assistance	*23 Nov 2025*	*150 packs of drinking water supplied through the university emergency centre*	*IASP Drinking-Water and Flood Relief Support*
Free drinking-water infrastructure	*Active university system*	*Cross-campus access, water-filter maintenance and water-quality checks*	*TSU Free Drinking-Water Programme*

4. Community and Local Partnerships

During 2025, Thaksin University (TSU) strengthened its contribution to SDG 6: Clean Water and Sanitation by developing place-based partnerships with local governments, schools, community organisations, community enterprises, fishers, public-health agencies, volunteer networks, and residents in Songkhla and Phatthalung Provinces.

The University's community partnership approach extended beyond providing water infrastructure. It integrated aquatic ecosystem conservation, community participation in water-resource stewardship, environmental education, emergency access to drinking water, sanitation and hygiene, post-flood environmental recovery, and community health protection.

4.1 Community and Local Partners

Thaksin University's 2025 SDG 6 activities involved multiple types of community and local partners. Each partner contributed different resources, knowledge, implementation capacity, or access to community networks.

Community/Local Partner	*Type of Partner*	*Role in Collaboration*	*Principal SDG 6 Linkage*
Khao Rup Chang Town Municipality, Songkhla	*Local government*	*Collaboration in community-based restoration of the Songkhla Lake ecosystem through the Fish House No. 10 initiative*	*6.6, 6.b*
Songkhla Conservation Fishing Promotion Association	*Community/conservation network*	*Local knowledge, aquatic-resource conservation, implementation of fish habitat activities*	*6.6, 6.b*
Ban Thale Nok Aquatic Animal Processing Community Enterprise	*Community enterprise*	*Community participation in aquatic-resource and ecosystem stewardship*	*6.6, 6.b*
Communities and local resource users around Songkhla Lake	*Community stakeholders*	*Participation in aquatic-resource conservation, local learning, environmental stewardship and community recovery*	*6.6, 6.b*
Ko Mak Secondary School, Pak Phayun District, Phatthalung	*Local school*	*Youth environmental education and awareness of invasive aquatic species and protection of water resources*	*6.6, 6.b*
Municipal School 1 (Eng Siang Samakkhi), Municipal School 2 (Ban Hat Yai), Municipal School 5 (Wat Hat Yai), and Municipal School 6 (Anuban Nai Fan)	*Local government schools*	*Partnership sites for sanitation, cleaning, and post-flood environmental recovery*	*6.2, 6.3, 6.b*

Wat Thai Yo and communities in Ko Yo, Songkhla	*Religious/community institution*	*Post-flood cleaning, sanitation recovery and restoration of shared community spaces*	*6.2, 6.3, 6.b*
Phatthalung Provincial Public Health Office	*Provincial public-sector agency*	*Technical expertise for sanitation and hygiene capacity building*	*6.2*
Flood-affected communities and local volunteer networks in Phatthalung and Songkhla	*Community/volunteer networks*	*Identification of needs, distribution of safe drinking water and relief supplies, recovery and sanitation activities*	*6.1, 6.2, 6.b*

The partnership model also involved supporting organisations from other sectors. For example, the Fish House No. 10 initiative brought together the Second Naval Area Command, Rajamangala University of Technology Srivijaya, PTT Exploration and Production PCL, SEVEN 7 SEA and the Thai Sea Watch Association alongside local government and community partners. This illustrates TSU's role as a convening institution that connects communities with public, academic and private-sector actors around a shared water-related ecosystem challenge.

4.2 Joint Projects, Activities, and Research

4.2.1 Community-Based Restoration of Songkhla Lake: "Fish House No. 10"

On 18 November 2025, Thaksin University and local partners implemented the "Fish House No. 10" initiative in Songkhla Lake at Moo 8, Khao Rup Chang Subdistrict, Mueang Songkhla District. The initiative was implemented with the Songkhla Conservation Fishing Promotion Association, Khao Rup Chang Town Municipality, Ban Thale Nok Aquatic Animal Processing Community Enterprise, and other public, academic, civil-society and private-sector partners. Its purpose was to provide refuge and nursery habitat for aquatic species and contribute to restoring the Songkhla Lake ecosystem.

A particularly important partnership characteristic was the involvement of communities, conservation fishing groups, university units and local stakeholders in the design and

implementation process, rather than delivering the project solely as a university-led intervention. TSU described the initiative as a concrete example of university–community cooperation for natural-resource conservation and local quality of life.
Although the project also contributes directly to SDG 14, it is highly relevant to SDG Target 6.6, which addresses the protection and restoration of water-related ecosystems, and Target 6.b, which emphasises local communities' participation in water and sanitation management.

4.2.2 Youth and Community Capacity Building on Invasive Aquatic Species

On 6 June 2025, TSU researchers from the Faculty of Technology and Community Development and the Faculty of Science and Digital Innovation worked with Ko Mak Secondary School, Pak Phayun District, Phatthalung Province, to strengthen local knowledge regarding the invasive Blackchin tilapia (Sarotherodon melanotheron).

A total of 49 upper-secondary students participated in learning activities covering the biology and identification of the invasive species, its effects on aquatic ecosystems, fishing communities and local economies, together with approaches to surveillance, prevention and community participation in aquatic-resource conservation.

The initiative contributed to the development of a public knowledge package on Blackchin tilapia, supported by the Thaksin University Research Fund for Fiscal Year 2025 under the urgent crisis research and innovation scheme. Importantly, the resulting knowledge platform was designed to be applied by schools, local organisations, and coastal communities.

The activity transformed university research into knowledge accessible to the community. It strengthened young people's role as environmental citizens capable of participating in the surveillance and protection of local aquatic ecosystems. It therefore demonstrates the linkage among research, education and community engagement under SDG 6.6 and 6.b.

4.2.3 Songkhla Lagoon Gyotaku: Community Learning for Aquatic Resource Conservation

In 2025, Thaksin University continued to use Songkhla Lagoon Gyotaku as an innovative community-learning mechanism within its "Learning City" research initiative.

The activity integrates art and science through fish printing, allowing children, young people, and community participants to learn about fish species' characteristics while increasing awareness of aquatic biodiversity and the natural resources associated with Songkhla Lake. The activity also helps document aquatic diversity within the lake system.

Community activities included workshops and a Gyotaku competition at Ban Pak Pra, with further learning activities planned across the Songkhla Lake Basin. TSU describes the approach as a mechanism for linking knowledge with communities and encouraging children, young people and residents to appreciate and participate in the sustainable conservation of natural resources.

This initiative illustrates a distinctive approach to SDG 6 partnership building: it translates scientific knowledge into an accessible cultural and community-learning format, helping expand participation in the stewardship of a major water-related ecosystem.

4.2.4 Emergency Access to Safe Drinking Water during the 2025 Floods

Severe flooding in Southern Thailand during November 2025 created an urgent need for drinking water, food, medical supplies and essential household items. Through the TSU Sharing Centre (ศูนย์ปันน้ำใจ มหาวิทยาลัยทักษิณ), Thaksin University worked with community and volunteer networks to distribute emergency supplies to flood-affected populations across Phatthalung Province between 21 and 28 November 2025. Over the eight-day operation, the Phatthalung Campus distributed assistance to 4,586 households across 55 villages, benefiting more than 18,344 people. Relief supplies included more than 58,632 bottles of drinking water, 191 sacks of rice, and more than 50,446 consumer goods and medical items.

University reporting indicates that the wider flood-response system mobilised students, staff, community networks and external supporters through coordination centres at both Songkhla

and Phatthalung campuses. This network enabled essential supplies, including drinking water, to reach affected communities rapidly.

From an SDG 6 perspective, this activity matters because access to safe drinking water must be maintained not only under normal conditions but also during disasters, when conventional household water sources may become contaminated, damaged, or inaccessible. The response therefore contributed particularly to SDG Target 6.1 while demonstrating the partnership principle embedded in Target 6.b and SDG 17.

4.2.5 "TSU Baworn Wash": Community Sanitation and Post-Flood Recovery

As floodwaters receded, Thaksin University shifted from emergency relief to sanitation, environmental recovery, and the restoration of community facilities through the "TSU Baworn Wash" initiative.

On 2 December 2025, students from all four year levels of the Faculty of Education participated in recovery work at Municipal School 2 (Ban Hat Yai), Municipal School 5 (Wat Hat Yai), Municipal School 6 (Anuban Nai Fan), and three affected households. Activities included cleaning classrooms and school grounds, removing flood-related contamination and restoring homes and educational environments. Additional teams cleaned and restored Municipal School 1 (Eng Siang Samakkhi) and Wat Thai Yo in Ko Yo, Songkhla, showing that recovery activities expanded to schools, religious institutions, and community spaces.

At the broader institutional level, TSU reported that students worked with communities to clean schools, temples, mosques and public areas. Health-science students also advised on health risks from exposure to contaminated floodwater and supported surveillance of post-flood communicable diseases.

The initiative is particularly relevant to SDG Target 6.2 on sanitation and hygiene and Target 6.3 on improving water quality and reducing pollution risks. It also demonstrates Target 6.b through local people's direct participation in environmental recovery.

4.2.6 Community Sanitation Capacity Building

The project also strengthened community sanitation capacity through training for local food businesses and food handlers.

On 5 October 2025, the Faculty of Agro-Industry and Biotechnology organised the first Food Sanitation Training Course for local entrepreneurs and food handlers. Training was jointly supported by a public-health specialist from the Phatthalung Provincial Public Health Office and a TSU food-science academic. More than 40 participants received theoretical and practical training to strengthen the knowledge and skills needed to comply with the Ministry of Public Health's sanitation requirements.

Although this initiative is broader than water management alone, it represents an important complementary component of SDG 6.2, because effective sanitation and hygiene practices are integral to reducing exposure to environmentally transmitted health risks.

4.3 Outputs, Outcomes, and Impact

The community and local partnerships generated measurable outputs, along with broader institutional, environmental, and social outcomes.

Dimension	*2025 Results*
Aquatic ecosystem outputs	*TSU, local government, conservation groups, community enterprise, and other partners implemented Fish House No. 10 in Songkhla Lake.*
Environmental education outputs	*49 upper-secondary students at Ko Mak Secondary School participated in education on invasive aquatic species, ecological impacts, surveillance and community conservation*
Community-learning outputs	*Songkhla Lagoon Gyotaku used as a community-learning tool combining scientific knowledge, local aquatic biodiversity and environmental awareness.*
Emergency water outputs	*More than 58,632 bottles of drinking water distributed through the Phatthalung flood-response operation*

Disaster-response reach	*4,586 households, approximately 18,344 people, and 55 villages reached during the eight-day Phatthalung flood response*
Sanitation recovery outputs	*Cleaning and restoration undertaken at at least four named municipal schools, three households, Wat Thai Yo and additional community/public locations following flooding*
Community health and hygiene outputs	*Health-related advice provided after exposure to contaminated floodwater; environmental cleaning and post-flood disease-risk awareness undertaken with communities*
Capacity-building outputs	*More than 40 local entrepreneurs and food handlers participated in the first 2025 Food Sanitation Training Course.*

Outcomes

The immediate and medium-term outcomes of these partnerships included:

- *strengthened participation of local stakeholders in the conservation of Songkhla Lake and other aquatic resources;*
- *increased environmental knowledge among young people regarding invasive aquatic species and ecosystem protection;*
- *improved community access to essential drinking water during a major flood emergency;*
- *faster restoration of schools, religious institutions, homes and public spaces after flooding;*
- *reduced post-flood sanitation and environmental-health risks through cleaning, health education and surveillance;*
- *strengthened links between university research and community-based learning; and increased capacity among local entrepreneurs and food handlers to apply appropriate sanitation practices.*

Contribution to Longer-Term Impact

Together, these activities contribute to a more water-resilient, environmentally aware society in Southern Thailand. The partnerships strengthen local capacity to protect aquatic ecosystems, participate in water-resource management, respond to climate-related disasters and maintain sanitation and hygiene under both normal and emergency conditions.

For Thaksin University, the partnerships also create a mechanism to translate research findings, academic expertise, and student learning into locally relevant solutions. Community organisations and local authorities, in turn, contribute local knowledge, implementation capacity and continuity beyond individual university activities.

The resulting partnership model can therefore be summarised as: University Knowledge and Research

- *Local Government Capacity*
- *Community Knowledge and Participation*
- *Student and Volunteer Engagement*

  ⟶ *Locally Responsive SDG 6 Solutions*

  ⟶ *Stronger Water, Sanitation and Ecosystem Resilience*
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This represents an important contribution to SDG 17, because achieving SDG 6 is strengthened not through isolated institutional actions but through sustained cooperation among universities, communities, local authorities, schools, and other societal actors.

SDG 6 Contribution

The 2025 partnership portfolio demonstrates contributions across several SDG 6 targets:

SDG 6.1 – Safe and affordable drinking water:

Emergency distribution of more than 58,632 bottles of drinking water to flood-affected communities.

SDG 6.2 – Sanitation and hygiene:

Post-flood cleaning and sanitation recovery in schools, households, religious institutions and public spaces, together with sanitation capacity building.

SDG 6.3 – Water quality and pollution reduction:

Remove flood debris, contaminated materials, and waste from community environments to reduce potential pathways for contamination of water and public spaces.

SDG 6.6 – Protection and restoration of water-related ecosystems:

Songkhla Lake habitat restoration, invasive-species awareness and aquatic-biodiversity learning.

SDG 6.b – Participation of local communities:

Community organisations, schools, municipalities, local enterprises, residents, youth and volunteer networks actively participated in implementation rather than acting solely as beneficiaries.

4.4 Evidence of Implementation

For audit and Sustainability Impact Rating purposes, Thaksin University can present the following dated evidence as the principal documentation for the 2025 reporting period.

No.	*Date*	*Evidence / Activity*	*Evidence Demonstrated*
E4.1	*6 June 2025*	*Blackchin Tilapia Awareness at Ko Mak Secondary School*	*Joint university–school activity; 49 participating students; research-to-community knowledge transfer; aquatic-resource conservation and community participation.*
E4.2	*30 August 2025 publication*	*Songkhla Lagoon Gyotaku*	*Community learning, aquatic-resource awareness and documentation of aquatic diversity around Songkhla Lake.*
E4.3	*5 October 2025*	*Food Sanitation Training Course, Batch 1*	*Partnership with Phatthalung Provincial Public Health Office; more than 40 local entrepreneurs and food handlers trained.*

E4.4	*18 November 2025*	*Fish House No. 10, Songkhla Lake*	*Collaboration among TSU, Khao Rup Chang Town Municipality, conservation organisations, community enterprise and other partners to restore aquatic habitat.*
E4.5	*21–28 November 2025*	*TSU Sharing Centre – Phatthalung Flood Response*	*Reached 4,586 households and more than 18,344 people; distributed more than 58,632 bottles of drinking water over eight days.*
E4.6	*Nov.–Dec. 2025*	*University-wide Flood Response and Community Recovery*	*Mobilise university and community networks; provide emergency relief, followed by school, temple, mosque, and public-space recovery.*
E4.7	*2 December 2025*	*TSU Baworn Wash – Hat Yai Schools and Households*	*Post-flood sanitation and cleaning at three named municipal schools and three households.*
E4.8	*December 2025*	*Recovery at Municipal School 1 and Wat Thai Yo*	*Post-flood environmental sanitation and restoration of school and community/religious facilities.*
E4.9	*December 2025*	*Post-Flood Environmental and Health Response*	*TSU volunteers worked with local authorities and residents to remove debris and sediment and clean public areas; health students addressed risks associated with contaminated floodwater.*

In 2025, Thaksin University demonstrated that community participation is an integral component of its approach to SDG 6. The University worked with municipalities, schools, conservation groups, community enterprises, health agencies, volunteers and residents to address different stages of the water-management continuum—from protecting aquatic ecosystems and developing environmental knowledge to providing drinking water during emergencies and restoring sanitation after floods.

The partnerships moved beyond one-way university outreach. Local partners contributed knowledge, implementation capacity, community networks and local ownership, while the University contributed multidisciplinary expertise, research, students, infrastructure and coordination capacity. This reciprocal model strengthened the relevance and responsiveness of university activities to local needs.

Through these partnerships, Thaksin University translated SDG 17 into practical mechanisms to advance SDG 6 by strengthening local participation in water-related ecosystem management,

improving access to safe water during disasters, promoting sanitation and hygiene, and building community capacity for long-term environmental stewardship.

Accordingly, Thaksin University's 2025 community and local partnership portfolio demonstrates a progression from:

Engagement ⟶ Co-participation ⟶ Knowledge Transfer ⟶ Joint Action ⟶ Community Capacity ⟶ Sustainable Water and Sanitation Resilience.

This model positions the University not only as a provider of academic knowledge, but as a long-term regional partner for water security, healthy communities and sustainable management of the Songkhla Lake Basin and Southern Thailand.

5. National Partnerships

During 2025, Thaksin University (TSU) strengthened its contribution to SDG 6: Clean Water and Sanitation through partnerships with national research-funding agencies, national higher-education and science networks, other Thai universities, national public-sector organisations, and major private-sector organisations.

The University's national partnership model linked national policy and research funding with university expertise and place-based implementation in Southern Thailand. Major areas of collaboration included wastewater-treatment innovation, building water-quality analytical capacity, restoring water-related ecosystems, research-based community learning, and cross-sectoral stewardship of the Songkhla Lake Basin.

5.1 National Partners

Thaksin University's principal national-level partners relevant to SDG 6 during the 2025 reporting period included the following.

National Partner	*Type of Partner*	*Role in the Partnership*	*Principal SDG 6 Contribution*
National Research Council of Thailand (NRCT)	*National government research-funding agency under the Ministry of Higher Education, Science, Research and Innovation*	*Supported research addressing dye-contaminated wastewater and water security in the Songkhla Lake Basin*	*SDG 6.3, 6.6*
Regional Science Park Network	*Nationwide science and innovation network*	*National knowledge exchange and laboratory-capacity development involving 44 universities*	*SDG 6.3; water-quality monitoring capacity*
Prince of Songkla University – Office of Scientific Instrument and Testing (OSIT)	*National public university / scientific infrastructure partner*	*Knowledge exchange and benchmarking for development of TSU's water-quality laboratory towards ISO/IEC 17025*	*SDG 6.3*
Program Management Unit on Area Based Development (PMU A)	*National research and innovation funding organisation*	*Supported area-based research and the Songkhla Lake "Three-Water Ecosystem" Learning City programme*	*SDG 6.6, 6.b*
Rajamangala University of Technology Srivijaya	*National public university*	*Partner in the Fish House No. 10 ecosystem-restoration initiative*	*SDG 6.6*
Royal Thai Navy – Second Naval Area Command	*National public-sector/security organisation*	*Cross-sectoral participation in aquatic-habitat restoration in Songkhla Lake*	*SDG 6.6*
PTT Exploration and Production Public Company Limited (PTTEP)	*Major Thai national corporate partner*	*Private-sector participation in the Fish House No. 10 aquatic ecosystem initiative*	*SDG 6.6, SDG 17*

NRCT is a national government organisation under Thailand's Ministry of Higher Education, Science, Research and Innovation, with responsibilities that include research and innovation funding, coordination of nationally important research programmes and promotion of research utilisation.

PMU A is similarly a national research-funding mechanism under Thailand's national higher-education, science, research and innovation system, with a mandate focused on area-based development.

Together, these partnerships show that TSU's SDG 6 work in 2025 connected not only to local stakeholders but also to Thailand's broader research, science, innovation, higher-education, and corporate partnership ecosystem.

5.2 Joint Projects, Activities, and Research

5.2.1 NRCT–TSU Research Partnership: Wastewater Treatment Innovation for the Songkhla Lake Basin

One of the strongest examples of national partnership for SDG 6 during 2025 was the research project:
"Management of Dye Wastewater Using Activated Carbon Innovation from Krajood Waste for Water Security in the Songkhla Lake Basin."

The research was implemented by a multidisciplinary team from Thaksin University with support from the National Research Council of Thailand (NRCT). The project addressed wastewater from chemical dyeing processes used by Krajood handicraft communities in environmentally sensitive areas around Thale Noi and the Songkhla Lake Basin.

Researchers developed activated carbon from residual Krajood material and used it as a filter in wastewater-treatment systems. The treated water could subsequently be reused, thereby reducing the direct discharge of dye-contaminated wastewater into natural water bodies.

Importantly, the project progressed beyond laboratory research. TSU researchers transferred the environmental innovation to community enterprises including the Wannee Krajood Handicraft Community Enterprise, the Tha Chang Community Enterprise Demonstration Centre for Economic

Rehabilitation in Phanang Tung, and the Ko Saba Krajood Weaving Group in Thepha District, Songkhla.

The research illustrates a strong SDG 17 partnership pathway:
National Research Funding
⟶ *University Research*
⟶ *Low-cost Wastewater Technology*
⟶ *Community Technology Transfer*
⟶ *Reduced Pollution Risk and Water Reuse*

The project contributes directly to SDG Target 6.3, particularly wastewater reduction, recycling, and safe reuse, while supporting the protection of the Songkhla Lake Basin under Target 6.6. The research was also presented at the World Technology Universities Congress 2025, increasing the visibility and potential scalability of locally developed water-treatment innovation.

5.2.2 National Science-Park Collaboration to Strengthen Water-Quality Analysis

A second major national partnership focused on strengthening Thailand's scientific infrastructure for water-quality monitoring.

On 20 August 2025, TSU participated in a national knowledge-exchange activity on laboratory operation under ISO/IEC 17025:2017, together with the Regional Science Park Network comprising 44 universities. The activity was held at the Northern Regional Science Park in Chiang Mai. The participation specifically supported capacity development for Thaksin University's Water Quality Analysis Laboratory and its preparation to establish a testing laboratory that operates in accordance with ISO/IEC 17025 requirements.

This national network collaboration was followed on 10 November 2025 by a knowledge-exchange visit to the Office of Scientific Instrument and Testing (OSIT), Prince of Songkla University. The purpose was to learn from an established testing infrastructure and strengthen TSU's preparation for ISO/IEC 17025 recognition in water-quality analysis.

The initiative was implemented under the 2025 Regional Science Park programme and received THB 1.12 million in support for laboratory development. TSU identified the intended outcome

as strengthening the reliability and confidence of water-quality analytical results and increasing the capacity to serve industries and entrepreneurs.

This partnership is highly relevant to SDG 6 because reliable water-quality management depends on credible scientific measurement. National cooperation therefore strengthens the University's ability to support water Sampling
The collaboration should be regarded as an institutional-capacity outcome rather than a claim that ISO/IEC 17025 accreditation had already been achieved in 2025.

5.2.3 Cross-Sector National Partnership for Songkhla Lake Ecosystem Restoration: Fish House No. 10

On 18 November 2025, Thaksin University implemented "Fish House No. 10" in Songkhla Lake through a multi-sector partnership involving community organisations alongside several nationally significant organisations.

National-level partners included the Royal Thai Navy's Second Naval Area Command, Rajamangala University of Technology Srivijaya, and PTT Exploration and Production Public Company Limited (PTTEP). Other conservation, community, and local-government partners also participated in the initiative.

The project established habitat and refuge structures for aquatic organisms, particularly juvenile aquatic species. The intervention was designed to support survival, nursery functions, and aquatic habitat restoration within the Songkhla Lake ecosystem.

The initiative's significance for this National Partnership section lies in its cross-sectoral structure. A university, national security organisation, another Thai public university, a major Thai corporation, conservation organisations, local government and communities worked through a common environmental initiative.

Although the original project communication highlights SDG 14, the activity also contributes to SDG Target 6.6, which specifically addresses the protection and restoration of water-related ecosystems.

5.2.4 PMU A–Supported Songkhla Lake "Three-Water Ecosystem" Learning City Initiative

TSU also demonstrated national partnership through its area-based research and learning-city programme, supported by the Program Management Unit on Area-Based Development (PMU A).

Under the research programme "Songkhla Lake Three-Water Ecosystem: Learning for Development through Creative and Sustainable City Mechanisms," TSU and its partners organised the Pak Phayun Learning City Festival: Three Waters, Three Lands on 3–4 May 2025.

The initiative was implemented under the Learning City research framework, with support from PMU A, and involved national, provincial, local, and community partners. Activities included public dialogue on the future of Songkhla Lake communities, exhibitions, community learning spaces and knowledge exchange among researchers, educational organisations, local authorities, conservation organisations, young people and residents.

From an SDG 6 perspective, this initiative fits best under Targets 6.6 and 6.b, rather than as a drinking-water or sanitation intervention. Its contribution lies in building knowledge, public participation and stewardship around the Songkhla Lake three-water ecosystem, an interconnected freshwater, brackish-water and marine-influenced system.

5.3 Outputs, Outcomes, and Impact

The national partnerships generated outputs and outcomes at technological, institutional, environmental and partnership levels.

Dimension	2025 Output / Outcome
National research partnership	*NRCT-supported research developed a wastewater-treatment approach using activated carbon produced from residual Krajood material.*
Wastewater management output	*Activated-carbon filtration was applied to dye wastewater, producing treated water suitable for reuse and reducing the need for direct discharge to natural water bodies.*
Technology-transfer output	*Environmental technology and knowledge were transferred to at least three identified community enterprise/groups in Phatthalung and Songkhla.*

National scientific-network output	*TSU participated in ISO/IEC 17025 laboratory-capacity development with a national network of 44 universities*
Laboratory-development investment	*THB 1.12 million programme supporting development of water-quality analytical capacity*
Inter-university collaboration	*Water-quality laboratory benchmarking and knowledge exchange undertaken with Prince of Songkla University OSIT*
Aquatic ecosystem output	*Fish House No. 10 established through collaboration involving the Royal Thai Navy, another public university, PTTEP, conservation groups and communities*
National research-to-community platform	*PMU A-supported Songkhla Lake Learning City activities connected nationally funded research with community and stakeholder participation*
Knowledge dissemination	*Wastewater innovation was showcased at the World Technology Universities Congress 2025*

Outcomes

The principal outcomes arising from national collaboration during 2025 were:

Stronger wastewater-management capability. *National research funding enabled TSU to translate materials and environmental science into a practical wastewater-treatment approach for community-scale production environments.*

Greater community capacity for pollution prevention. *Technology transfer enabled community enterprises to access a relatively simple wastewater-management technology derived from locally available waste materials.*

Improved institutional capacity for water-quality testing. *Participation in national laboratory networks and benchmarking with Prince of Songkla University strengthened TSU's readiness to operate its water-quality testing infrastructure according to internationally recognised laboratory-management principles.*

Stronger cross-sector stewardship of water-related ecosystems. *Collaboration among academic institutions, the Royal Thai Navy, PTTEP and community organisations expanded responsibility for Songkhla Lake conservation beyond a single university or sector.*

Improved linkage between national research policy and local implementation. *NRCT and PMU A funding mechanisms enabled nationally supported research to address water and ecosystem challenges specific to Southern Thailand.*

Contribution to SDG 6 Targets

SDG 6.3 – Improve Water Quality, Wastewater Treatment, Recycling and Reuse

The strongest direct contribution resulted from the NRCT-supported wastewater research. The activated-carbon system treated dye-contaminated wastewater, enabled reuse of treated water, and reduced direct pollutant discharge into natural ecosystems. National laboratory collaboration additionally strengthened water-quality testing capacity needed for reliable environmental management.

SDG 6.6 – Protect and Restore Water-Related Ecosystems

Fish House No. 10 and the Songkhla Lake Learning City programme supported ecosystem stewardship, habitat restoration and increased awareness of the ecological significance of the Songkhla Lake Basin.

SDG 6.b – Support Stakeholder Participation in Water Management

National partnerships were deliberately connected to local implementation. Research funders, universities, government organisations and private-sector partners worked alongside community enterprises, conservation groups, young people and residents. This created a partnership structure in which communities participated in implementation and knowledge application rather than acting solely as recipients.

5.4 Evidence of Implementation

For Sustainability Impact Rating assessment, the following evidence can be used as the principal 2025 documentation.

Evidence Code	*Date*	*Activity / Evidence*	*What the Evidence Demonstrates*
E5.1	*28 Feb 2025*	*Water Quality Analysis Laboratory development programme*	*Confirms THB 1.12 million support under the Regional Science Park Service Program for development of TSU's water-quality laboratory towards ISO/IEC 17025.*
E5.2	*3–4 May 2025*	*Pak Phayun "Three-Water Ecosystem" Learning City Festival*	*PMU A-supported area-based research translated into cross-sector public learning and participation around the Songkhla Lake ecosystem.*
E5.3	*20 Aug 2025*	*National ISO/IEC 17025 knowledge exchange*	*TSU participated in the Regional Science Park Network of 44 universities; the activity directly strengthened water-quality laboratory capacity.*
E5.4	*31 Oct 2025*	*NRCT-supported Krajood activated-carbon wastewater research*	*Documents national research funding, wastewater-treatment innovation, water reuse and technology transfer to community enterprises.*
E5.5	*10 Nov 2025*	*Study visit to Prince of Songkla University OSIT*	*National inter-university knowledge exchange for preparation of the Water Quality Analysis Laboratory towards ISO/IEC 17025; confirms THB 1.12 million programme.*
E5.6	*18 Nov 2025*	*Fish House No. 10*	*Confirms collaboration with the Royal Thai Navy's Second Naval Area Command, RMUT Srivijaya, PTTEP and other partners for restoration of aquatic habitat in Songkhla Lake.*

E5.7	*2025 institutional verification*	*National Research Council of Thailand institutional mandate*	*Confirms NRCT's national role in research funding and coordination under MHESI.*
E5.8	*Institutional verification*	*Program Management Unit on Area-Based Development*	*Confirms PMU A as a national area-based research-funding mechanism under Thailand's national research and innovation system.*

During 2025, Thaksin University demonstrated the capacity to translate national partnerships into practical contributions to SDG 6.

The University worked with national research funders, university networks, scientific infrastructure providers, public-sector organisations, and private-sector organisations to address different dimensions of water sustainability. These partnerships supported wastewater-treatment innovation, the development of credible water-quality testing capacity, the restoration of water-related ecosystems, and community participation in managing and conserving the Songkhla Lake Basin.

The partnerships were particularly significant because they connected national resources with locally defined challenges. National organisations contributed research funding, scientific networks, technical knowledge, institutional infrastructure and cross-sector capacity. At the same time, Thaksin University provided multidisciplinary research expertise, laboratories, students, researchers and strong connections with communities in Southern Thailand.
Through these national collaborations, Thaksin University strengthens its role as a knowledge intermediary between national science and innovation systems and the water, sanitation and ecosystem needs of communities in Southern Thailand, supporting progress towards cleaner water, reduced pollution, stronger analytical capability and more resilient water-related ecosystems.

6. International Partnerships

In 2025, Thaksin University (TSU) strengthened the international dimension of its contribution to SDG 6: Clean Water and Sanitation by cooperating with international organisations, overseas universities, global university networks, and ASEAN sustainability platforms.
The University's international partnership approach reflected its strategic direction as a "University of Glocalisation"—connecting locally grounded research and environmental challenges in Southern Thailand with international knowledge, expertise, academic networks, and sustainability frameworks.

International cooperation related to SDG 6 during the reporting period operated through four principal mechanisms:

1. International SDG policy dialogue and knowledge exchange
through cooperation with the United Nations in Thailand;
2. International academic and research networks
through the World Technology Universities Network (WTUN);
3. International capacity building in fisheries, aquatic resources and sustainable agriculture
through institutional cooperation with Kagoshima University, Japan; and
4. International sustainability research and knowledge-exchange platforms
through the International Conference on ASEAN Sustainable Development (ICASD 2025).
These partnerships strengthened the University's capacity to address water-related challenges through **research, environmental innovation, aquatic-resource education, international knowledge exchange, and dissemination of locally developed wastewater solutions**.
The activities contributed particularly to:

- **SDG 6.3** – *improving water quality, wastewater treatment, recycling and reuse;*
- **SDG 6.6** – *protecting and restoring water-related ecosystems;*
- **SDG 6.b** – *supporting stakeholder participation in sustainable water and ecosystem management; and*
- **SDG 17.6 and 17.16** – *strengthening international knowledge, science, technology and multi-stakeholder partnerships.*

6.1 International Partner

The principal international partners and networks with documented collaboration during 2025 included the following.

International Partner	Country / International Status	Nature of Partnership	Relevance to SDG 6
United Nations in Thailand	*International organization*	*SDG policy dialogue, research exchange, field-based learning and discussion of future university–UN cooperation*	*Cross-cutting SDG framework; SDG 6.6 through water-related ecosystem learning*
World Technology Universities Network (WTUN)	*Global university network*	*International university network, World Technology Universities Congress 2025, sustainability knowledge exchange and global dissemination of TSU innovation*	*SDG 6.3, SDG 17.6, 17.16*
Kagoshima University	*Japan*	*Double Degree Program, fisheries and agricultural academic collaboration, staff/student exchange and research-capacity development*	*SDG 6.6 and sustainable aquatic-resource management*
Université de Moncton	*Canada*	*International co-host/network partner of ICASD 2025*	*Sustainability research and international knowledge exchange*
Universiti Utara Malaysia	*Malaysia*	*International co-host/network partner of ICASD 2025*	*ASEAN sustainability collaboration*
Myanmar Creative University	*Myanmar*	*International co-host/network partner of ICASD 2025*	*Sustainable-development knowledge exchange*
Scientists and Engineers Without Borders	*Republic of Korea*	*International partner in ICASD 2025*	*Environmental and technology-oriented sustainability collaboration*
IMT–GT Network	*Indonesia–Malaysia–Thailand*	*Regional international cooperation platform*	*Cross-border sustainability and resource-management dialogue*
International researchers from institutions including Dankook University and University of Bergen	*Republic of Korea / Norway*	*International expert participation in sustainability dialogue*	*Knowledge exchange relevant to environmental sustainability*

View the international partnerships as complementary. Some provided direct scientific or aquatic-resource relevance, whereas others provided international platforms through which TSU could exchange research, benchmark sustainability approaches, and communicate locally developed SDG 6 innovations internationally.

6.2 Joint Projects, Activities, and Research

6.2.1 Thaksin University–United Nations Partnership for Advancing the SDGs

A significant international partnership during 2025 was the University's growing cooperation with the United Nations in Thailand.

On 4 February 2025, Thaksin University executives and researchers met representatives of the United Nations in Thailand at the United Nations offices in Bangkok. The discussion focused on research, teaching, academic services, and mechanisms for advancing the Sustainable Development Goals through university–UN collaboration.

The collaboration progressed further on 13 March 2025, when a United Nations delegation visited Thaksin University and Phatthalung Province. The programme included discussions of sustainable development through the UN 5Ps framework, as well as field-based learning in the Thale Noi area, an ecologically important part of the Songkhla Lake Basin.
The interaction enabled TSU researchers, executives and international partners to discuss how university research and place-based development could contribute to sustainable development at local, national and international levels.

From an SDG 6 perspective, this collaboration's principal value lies in linking TSU's locally grounded work on water-related ecosystems, environmental management, and community sustainability to an internationally recognised sustainable-development framework.

6.2.2 World Technology Universities Network and WTUC 2025

Thaksin University served as host of the 10th World Technology Universities Congress (WTUC 2025) from 20–22 October 2025 in Songkhla.
The Congress was organised through the World Technology Universities Network (WTUN) under the theme:

"The Glocalisation: Functional Role of Higher Education from Local to Global."
The international programme addressed themes including Social Innovation for Area-Based Development and University–Industry Partnerships for Sustainability, while also creating opportunities for new collaboration among member universities.
International participation represented WTUN institutions and delegates from multiple countries. Reporting from participating institutions indicated representation from 16 WTUN member countries.

The Congress also included an annual lecture on Innovation and Sustainable Development by a United Nations representative in Thailand, further connecting the global university network to the international SDG framework.

International Dissemination of TSU Wastewater Innovation

The SDG 6 relevance of WTUC 2025 is particularly demonstrated by the international presentation and exhibition of TSU's research on: "activated carbon produced from Krajood waste for treatment of dye-contaminated wastewater." The innovation was developed to address wastewater generated through Krajood dyeing processes in communities surrounding the Songkhla Lake Basin. TSU reported that the research was showcased at the World Technology Universities Congress 2025, providing an international platform to share a locally developed wastewater-treatment approach with a global academic network. The activity primarily contributes to SDG 6.3 and also supports SDG 17.6 through international scientific and technological knowledge exchange.

6.2.3 International Academic Partnership with Kagoshima University, Japan

During 2025, Thaksin University strengthened its long-term academic partnership with Kagoshima University, Japan, particularly through cooperation in agriculture and fisheries sciences.
Thaksin University launched a Master of Science in Modern Agriculture Double Degree Program in collaboration with the Graduate School of Agriculture, Forestry and Fisheries at Kagoshima University. Students can undertake study connected to either Agronomy or Fisheries Science, receiving qualifications from both institutions.

From 2–4 June 2025, a delegation from Kagoshima University, including academics from its Faculty of Fisheries, visited Thaksin University to prepare to implement the programme, discuss academic collaboration, and visit university laboratories and surrounding communities in Phatthalung Province.

This partnership aligns with SDG 6, particularly through its fisheries and aquatic-resource dimension. Sustainable fisheries and aquatic-resource management depend on the condition, ecological integrity and long-term management of freshwater, brackish-water and coastal ecosystems.

The partnership strengthens human capital in areas including:

- *fisheries science;*
- *aquatic-resource management;*
- *sustainable food-production systems;*
- *ecosystem-based resource management;*
- *research methodology;*
- *cross-border student and researcher learning.*

Accordingly, the partnership provides an international capacity-building foundation for SDG 6.6. However, it should not be described as a dedicated clean-water intervention unless a specific joint water project is documented.

6.2.4 International Conference on ASEAN Sustainable Development – ICASD 2025

On 24–25 April 2025, Thaksin University's International College organised the 2nd International Conference on ASEAN Sustainable Development (ICASD 2025) under the theme:
"Accelerating Action: Collaborative Solutions for a Sustainable Future."
The conference focused on five dimensions of sustainable development—People, Prosperity, Planet, Peace and Partnership—and provided an international academic platform for exchanging research on environmental sustainability and resource management.
More than 50 oral research presentations were delivered, with international participation and institutional collaboration involving partners including:

- *Université de Moncton, Canada;*
- *Universiti Utara Malaysia;*
- *Myanmar Creative University;*
- *Scientists and Engineers Without Borders, Republic of Korea; and*
- *the Indonesia–Malaysia–Thailand Growth Triangle (IMT–GT).*
-

International keynote contributors included academics from Dankook University, Republic of Korea, and the University of Bergen, Norway.

External reporting indicates that researchers from approximately 10 countries participated in ICASD 2025.

The conference programme explicitly included the Planet dimension, incorporating natural-resource management, climate change, and biodiversity, along with a dedicated Partnership dimension focused on international collaboration, alliance formation, and resource-efficiency optimisation.

From an SDG 6 perspective, ICASD 2025 provided a mechanism for:
International Research Exchange

- *Environmental Knowledge*
- *ASEAN Partnership Building: Greater Capacity to Address Water and Natural-Resource Challenges*

The conference should therefore be classified primarily as an international SDG knowledge and partnership platform, rather than as a single SDG 6 intervention.

6.3 Outputs, Outcomes, and Impact

Quantifiable and Verifiable Outputs

Dimension	*2025 Output*
International SDG engagement	*At least two documented high-level engagement activities with United Nations representatives in February and March 2025*
International university network	*TSU hosted the 10th World Technology Universities Congress, 20–22 October 2025*
Global participation	*WTUC 2025 included representatives from approximately 16 WTUN member countries*
SDG 6 innovation dissemination	*TSU's activated-carbon wastewater-treatment innovation was showcased through the international WTUC 2025 platform*
International academic capacity building	*Double Degree partnership implemented with Kagoshima University, Japan, incorporating Agronomy and Fisheries Science*
International academic mobility	*Kagoshima University fisheries academics undertook an institutional visit to TSU during 2–4 June 2025*
International sustainability conference	*ICASD 2025 delivered more than 50 oral presentations*
International ICASD network	*Formal international collaborators included institutions/networks from Canada, Malaysia, Myanmar, Korea and the IMT–GT region.*
ICASD international reach	*Participation included researchers and academics from approximately 10 countries.*

Outcomes

1. Strengthened International Visibility of TSU's SDG 6 Research

The presentation of the Krajood-based wastewater-treatment innovation at WTUC 2025 demonstrated how to communicate a locally developed response to community wastewater pollution internationally.

This strengthened the transition from: **Local Research ⟶ Community Application ⟶ International Dissemination**

and increased the potential for international knowledge exchange, future collaborative research and adaptation of the approach in other contexts.

2. Greater Access to International Knowledge and Expertise

Engagement with United Nations representatives, WTUN member institutions and overseas universities increased TSU's exposure to international approaches to:

- *sustainable-development governance;*
- *sustainability-oriented university management;*
- *environmental research;*
- *ecosystem stewardship;*
- *fisheries science;*
- *sustainable innovation; and*
- *university–community partnerships.*

This strengthens institutional capacity to address complex water and environmental challenges.

3. Strengthened Human Capital for Aquatic-Ecosystem Management

The Kagoshima University Double Degree partnership expanded access to international graduate education and expertise in Fisheries Science and sustainable agricultural systems. This strengthens the University's long-term capability to produce researchers and professionals who can contribute to the protection and sustainable management of water-related ecosystems.

4. Expanded International Partnership Networks

Hosting WTUC and ICASD positioned Thaksin University as a regional platform for connecting: universities + international organizations + researchers + industries + communities.
These networks create opportunities for future collaborative research and innovation on water, sanitation, pollution control and ecosystem resilience.

Contribution to SDG 6 Targets

SDG 6.3 – Improve Water Quality and Wastewater Treatment

The clearest international contribution was disseminating TSU's Krajood activated-carbon wastewater-treatment technology through WTUC 2025, taking a locally tested water-pollution solution into a global university network.

SDG 6.6 – Protect and Restore Water-Related Ecosystems

UN field engagement in the Songkhla Lake/Thale Noi context and academic cooperation in fisheries science with Kagoshima University strengthened knowledge and institutional capacity relevant to aquatic ecosystem management.

SDG 6.b – Participation in Water and Ecosystem Management

International partnerships were linked back to TSU's place-based work with communities, demonstrating a glocal approach in which international knowledge supports locally grounded sustainability action.

SDG 17.6 – Knowledge Sharing and Science Cooperation

WTUN, international university partnerships and international conferences expanded scientific and technical knowledge exchange.

SDG 17.16 – Multi-Stakeholder Partnerships

TSU connected international organisations, universities, researchers, communities and other societal actors to strengthen sustainable-development implementation.

6.4 Evidence of Implementation

Evidence Code	*Date*	*Evidence / Activity*	*What the Evidence Demonstrates*
E6.1	*4 Feb 2025*	*TSU meeting with the United Nations in Thailand*	*Formal international dialogue on research, education, academic services and collaboration for advancing the SDGs.*
E6.2	*13 Mar 2025*	*United Nations delegation visit to TSU and Phatthalung*	*Continued international partnership, SDG dialogue and field-based learning including the Thale Noi/Songkhla Lake context.*
E6.3	*24–25 Apr 2025*	*2nd International Conference on ASEAN Sustainable Development – ICASD 2025*	*More than 50 presentations; international institutional partners; platform for Planet and Partnership dimensions of sustainability.*
E6.4	*24–25 Apr 2025*	*ICASD international programme*	*Confirms Natural Resource Management, Climate Change, Biodiversity, International Collaboration and Resource Efficiency as programme areas.*

E6.5	*2025*	*Kagoshima University–TSU Double Degree Program*	*International academic collaboration in Modern Agriculture, Agronomy and Fisheries Science.*
E6.6	*2–4 Jun 2025*	*Kagoshima University delegation to TSU*	*Faculty of Fisheries participation; programme implementation, laboratory visits and community engagement.*
E6.7	*20–22 Oct 2025*	*World Technology Universities Congress 2025*	*TSU hosted an international university network under the theme of glocalisation, including University–Industry Partnerships for Sustainability.*
E6.8	*Oct 2025*	*International participation in WTUC*	*Participation from approximately 16 WTUN member countries.*
E6.9	*Oct 2025*	*UN Thailand contribution to WTUC*	*United Nations representative delivered the WTUN Annual Lecture on Innovation and Sustainable Development.*
E6.10	*2025*	*International dissemination of Krajood wastewater-treatment innovation*	*Confirms that TSU's wastewater-treatment research was exhibited at WTUC 2025.*

During 2025, Thaksin University strengthened the international dimension of its commitment to SDG 6: Clean Water and Sanitation by connecting locally grounded environmental research and regional sustainability challenges with international organisations, universities and academic networks. The University's international partnerships operated at multiple levels.

- *At the policy and sustainability-framework level, cooperation with the United Nations in Thailand provided opportunities for learning, dialogue and alignment with the global SDG agenda.*
- *At the scientific and academic level, cooperation with Kagoshima University strengthened expertise in fisheries, aquatic resources and sustainable agriculture.*
- *At the international network level, WTUN enabled Thaksin University to share local research with the global academic community and create new opportunities for collaboration.*
- *At the ASEAN and global knowledge-exchange level, ICASD 2025 brought together universities, researchers and international networks to discuss sustainability challenges and collaborative solutions.*

Most importantly, TSU's approach showed that internationalisation was not separate from local development. International partnerships strengthened solutions relevant to the Songkhla Lake Basin, Southern Thailand, and local communities.

Through this approach, Thaksin University is increasingly positioned not only as a recipient of international knowledge but also as a contributor of place-based knowledge and innovation to the global sustainability community, particularly in wastewater management, aquatic-resource stewardship and sustainable development of the Songkhla Lake Basin.