Annual Report

on SDG14 Life Below Water

14.2 Supporting aquatic ecosystems through education

14.2.1 - Does your university as a body offer educational programs on fresh-water ecosystems (water irrigation practices, water management/conservation) for local or national communities?

Educational Programs on Freshwater Ecosystems for Local Communities

Connecting freshwater ecosystem learning with community conservation

Thaksin University offers community-oriented educational activities that connect knowledge of freshwater ecosystems with the conservation and responsible use of local aquatic resources. Through its Academic Service Unit for Natural Resource Management in the Songkhla Lagoon Area, academic staff, and student participation, the university brings learning opportunities into schools, community spaces, and local aquatic environments.

The approach responds to the close relationship between water, biodiversity, and community livelihoods in southern Thailand. Canals, wetlands, and the freshwater areas connected to the Songkhla Lagoon support aquatic organisms and provide resources for surrounding communities. Understanding these environments requires attention to water quality, habitat conditions, and the consequences of human activities. The university therefore combines scientific knowledge with local experience and practical learning, helping participants relate ecological concepts to places and resources familiar to them.

During 2025, educational engagement included youth conservation activities, school-based resource learning, fish-printing workshops, local curriculum development, and participatory exchange concerning watershed management.

Youth learning in local aquatic environments

Youth activities provide an important route for introducing freshwater ecosystem conservation beyond the university classroom. The university's 2025 activity record includes the youth "Love the Lagoon" conservation camp on 9–10 April and a youth camp at Khlong Yai on 10 July, supported by student participation from Thaksin University.

These activities place environmental learning within the context of local natural resources. They create opportunities for young people to discuss the relationship between aquatic habitats, biodiversity, and community responsibilities. Learning in familiar environments helps connect conservation with everyday experience and encourages participants to see local waterways as ecosystems requiring care.

The university's engagement also links students with communities. Participation in community learning activities provides a channel through which university knowledge can be shared in accessible forms, while local experience helps ground that learning in the circumstances of the area.











Activities in “Three-Water Fish Guardians” project

Public evidence:
https://thecityleaders.com/learning-city-songkla
https://www.facebook.com/photo/?fbid=122151288842456749&set=pcb.122151292652456749&locale=th_TH

Learning about water quality through aquatic organisms

A further component of the university’s freshwater education is the use of aquatic macroinvertebrates as biological indicators. The supporting program describes practical learning in which schoolchildren and community participants observe aquatic organisms and explore their relationship with water quality. This approach makes freshwater ecosystem assessment accessible by using organisms that can be observed in local waters. It helps explain that environmental quality concerns the living communities supported by a waterway as well as its visible appearance. Observation and identification activities provide a starting point for discussing habitat condition, pollution, and the importance of protecting aquatic environments.

The educational value lies in connecting scientific methods with questions participants can investigate locally. Such activities introduce the principles of environmental observation and evidence-based assessment without assuming that a short workshop alone establishes independent or long-term monitoring capacity. หาลิงก์ไม่เจอค่ะ









Water quality assessment in Laipan Canal Water Quality Project

Public evidence:

https://www.facebook.com/photo?fbid=10231454739935330&set=pcb.10231454740455343&locale=th_TH

Making aquatic biodiversity accessible through creative learning

The university uses fish-printing activities, or Gyotaku, to introduce aquatic biodiversity through close observation and creative participation. In 2025, documented activities included a workshop for pupils from a Pattani school at Talat Tai Thun on 19 January and an activity at Pak Phayun Phitthayakhan School on 27 February.

Fish printing provides an accessible entry point for learning about fish form and diversity. It creates opportunities to connect observations of aquatic organisms with discussion of the habitats supporting them. Within the university's wider "three-water" learning approach, freshwater habitats are considered alongside the brackish and saline environments connected through the Songkhla Lagoon system.

The activity therefore supports communication across age groups and educational backgrounds. It helps translate aquatic biodiversity from an abstract topic into a tangible learning experience that can lead to discussion of habitat protection and responsible resource use.





Public evidence:

https://www.facebook.com/photo?fbid=10229156811448554&set=pcb.10229156815928666&locale=th_TH

https://www.facebook.com/photo/?fbid=10229156810968542&set=pcb.10229156815928666&locale=th_TH



Public evidence:
https://www.facebook.com/photo/?fbid=10232168707664077&set=pcb.10232168711264167&locale=th_TH

School partnerships and locally relevant learning

The university's 2025 work also included participation in local curriculum development on 4 June and three resource-learning stations for pupils at Anuban Pak Phayun School on 11 September. These activities extend community education through cooperation with schools and local learning networks. Incorporating local resources into educational activities helps children relate their learning to their surroundings and provides opportunities for teachers, university staff, and communities to exchange knowledge.

The university's role is to contribute academic expertise and accessible learning activities, while school and community participation helps make the content relevant to local learners. This relationship supports continuity between individual outreach events and wider efforts to develop place-based environmental learning.



Thaksin University joins forces with the network to organize the Pak Phayun Festival. The city of learning in the Three Waters, Three Lands, creating art in the old city

Thaksin University Under the research project set "Songkhla Lake Three Learning Waters Ecosystems for Development with Urban Mechanisms to Create a Creative and Sustainable Economy" Research framework for upgrading and driving learning cities (Learning city) with support from Area Development Capital Administration and Management Unit (B.P.T.) Learning City 2024 Ministry of Higher Education, Science, Research and Innovation and the Office of the Science Promotion Commission Research and innovation together with Pak Phayun District Phatthalung Provincial Administrative Organization Pak Phayun Subdistrict Municipality Koh Mak Subdistrict Administrative Organization Government agencies Thai Sea Conservation Association Ban Chong Fuean Conservation Network and a group of network organizations in Phatthalung Province joined in organizing the "Pak Phayun Festival" A city of learning, three waters, three lands, creating art

from the old city at Ban Klang Pak Phayun Community. (Federal Mosque of Phatthalung Province) Pak Phayun District Phatthalung Province Between 3-4 May 2025, within the event there will be various activities.

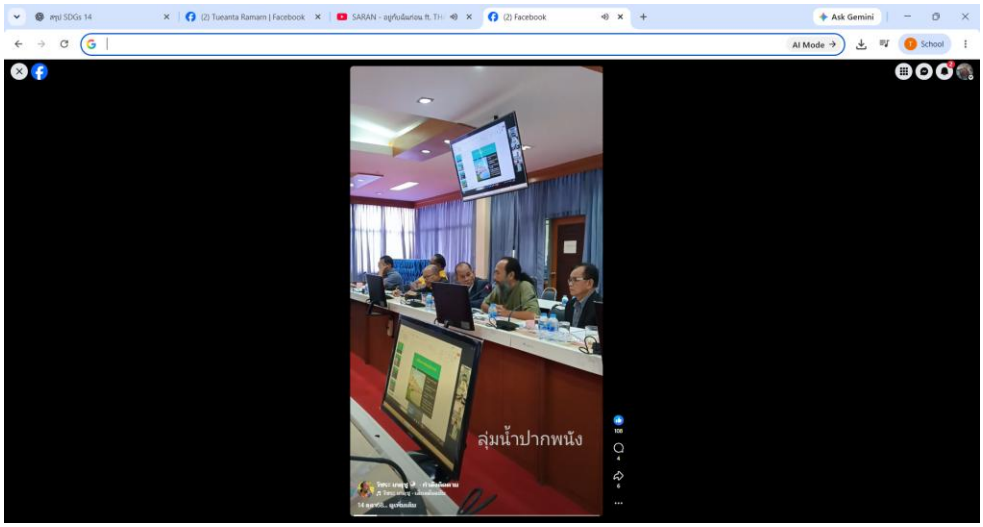
Public evidence: https://tsu.ac.th/home/details.php?id=5133

Participatory knowledge exchange on watershed management

Thaksin University also contributes to learning and knowledge exchange among adult stakeholders involved in water management. In the Pak Phanang Basin, its researchers participated in cooperation concerning basin information and participatory planning during 2025.

A documented discussion on 14 October 2025 involving the basin-development committee and irrigation authorities identified the need to survey and update information about the basin. During the same year, university researchers joined community networks from eight districts, provincial organizations, irrigation representatives, and partner universities in preparing a participatory water management proposal.

This work complements public educational activities by creating opportunities to exchange local experience and academic knowledge about connected water-management needs. Its documented contribution is to consultation and collaborative planning; implementation of the proposed measures remained subject to subsequent consideration and funding.



Public evidence: https://www.facebook.com/reel/1951032402174217?locale=th_TH

Educational outputs and contribution

Thaksin University's 2025 activities provided multiple routes into freshwater ecosystem learning: youth camps, biological water quality education, creative biodiversity activities, school partnerships, and stakeholder knowledge exchange. The activities connect scientific understanding with familiar waterways and community concerns, making aquatic conservation relevant to different groups of learners.

The documented outputs include educational events, school engagement, student participation, and collaboration in locally relevant learning and planning. Through this combination, the university supports community understanding of freshwater ecosystems and creates opportunities for young people and adults to participate more knowledgeably in the protection and responsible use of aquatic resources.