Annual Report

on SDG17: Partnership for the Goals

17.3 Publication of SDG reports

17.3.6 Progress against SDG6

Water Management System at Thaksin University

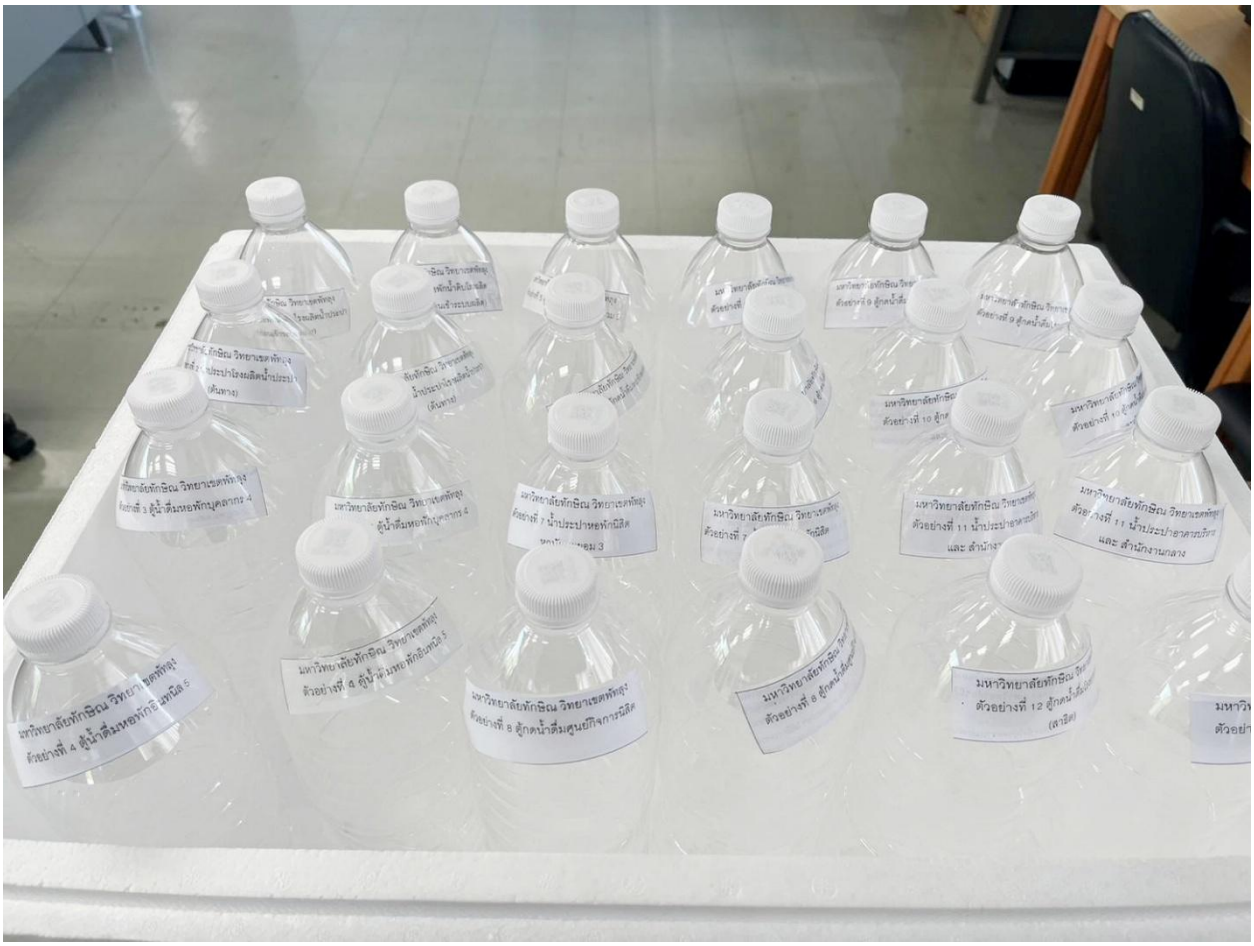
Thaksin University encompasses 2,658 rai of water-retention areas situated in a western landscape characterized by complex mountain ranges, while to the east lies Thailand's largest lake. When the monsoon season arrives, rainwater flows naturally through the area toward the sea. Therefore, Thaksin University, Phatthalung Campus, places great importance on **establishing surface water retention zones** and **implementing systematic water management**, including **flood prevention measures** and the development of **raw water sources** for producing **tap water** that **meets standards and is sufficient for consumption.**

As is widely understood, water is an essential component of ecosystems and all living organisms. It serves as a raw material for photosynthesis in plants, is vital for various biological processes in both plants and animals, and provides a habitat for aquatic species. However, this crucial resource has become increasingly scarce, leading to mounting pressure for collective action and multi-sectoral participation to enhance and improve water management efficiency.

Globally, around 97% of the Earth's water is saltwater, while only 3% is freshwater. Of this freshwater, approximately 70% exists as glaciers and ice caps, 29% is groundwater, and only 1% is surface water.

Thaksin University adopts policies that support the pursuit of the Sustainable Development Goals (SDGs), particularly Goal 6: Clean Water and Sanitation, by emphasizing **effective water management** and ensuring **sustainable access** and **use of water resources**. The university has prepared multiple surface water retention sites across various areas of the Phatthalung Campus, which help absorb water and mitigate downstream flooding. These sites also serve as high-quality sources for surface water treatment, which has been utilized from 2023 to the present.

Thaksin University, Phatthalung Campus, utilizes 340,736 square meters of raw surface water sources for producing its own treated tap water. This supply is **sufficient to meet the daily consumption needs of the entire university community**—including staff, students, and school pupils—totaling 3,890 individuals. At present, the university produces an average of 1,000–1,300 cubic meters of tap water per day to support domestic use and consumption.



Producing surface tap water in-house enables Thaksin University to maintain **strict quality control** in accordance with established **tap water production standards**. Water samples are regularly collected and submitted to certified laboratories for **quality analysis to ensure cleanliness and safety** for all users. These procedures comply with the Ministry of Public Health Notifications No. 61 (1981), No. 135 (1991), and No. 6 dated 23 April 2010, as well as the Royal Gazette Volume 126, Special Section 41 Ng, dated 19 March 2009, and the standards of the **Provincial Waterworks Authority.**

Whether during the monsoon season, when rainwater from all directions flows into this water-retention area, or during the dry summer months when raw water levels decrease, the quantity of raw water and the treated tap water produced by Thaksin University can always be relied upon to be **clean, safe, and compliant with consumption standards.**

Public evidence:

https://www.tsu.ac.th/home/details.php?aNum=20231107040053&id=2999&gid=2

Quality Tap Water — Clean, Safe, and Reliable for Every Life at Thaksin University, Phatthalung Campus

With effective water management system mentioned earlier, Thaksin University, Phatthalung Campus, is recognized as **one of the higher education institutions with a comprehensive water resource management system**. This is especially evident in its **in-house tap water production system**, which operates entirely within the campus to ensure that the water used daily by students, staff, and various units is clean, safe, and sustainably managed.

With an area of over 2,600 rai, Thaksin University, Phatthalung Campus, has developed a surface water catchment system designed to **effectively store rainwater and regulate water flow during the rainy season.** This catchment area also serves as **a vital source of raw water for the university's tap water production system**, which has the capacity to produce up to 2,400 cubic meters of treated water per day, equivalent to approximately 876,000 cubic meters per year. This volume is sufficient to meet the needs of more than 5,000 students, staff, and university units across the campus.

A key strength of this system is **the university's ability to produce and control water quality independently through its own water quality analysis laboratory**. The laboratory

monitors both the **production process** and **the treated water supply** to ensure full compliance with the sanitation and **safety standards of the Ministry of Public Health.**

Public evidence: https://www.tsu.ac.th/home/details.php?id=5527

Thaksin University Cares for the Well-Being of Students and Staff:
Over 200 Free Water Refill Stations Installed Across Songkhla and Phatthalung Campuses
— Stay Hydrated, Beat the Heat, and Reduce Plastic Waste

By producing clean drinking water on our own, Thaksin University has expanded its network of **free water refill stations** across both the Songkhla and Phatthalung campuses, ensuring that everyone can **stay refreshed and hydrated throughout the university**. This initiative also helps reduce single-use plastic waste, supported by data showing a significant reduction in plastic bottle consumption. More than 200 refill points have now been installed to provide **safe and hygienic drinking water** for all students and staff.

This effort reflects the university's commitment to **promoting good health, minimizing environmental impact, and ensuring that everyone has access to clean and safe drinking water.**

In addition, Thaksin University has prepared plans to establish new drinking water service points in faculties and buildings that will soon be opened for use. Recognizing the importance of **hygiene** for students, school pupils, and staff, the university has also provided high-quality filter media and replacement cartridges for drinking water dispensers, filtration units, and refill stations. These filters help remove dust and contaminants, ensuring that the water is clean and safe for consumption.

The university also conducts random water quality testing at various drinking water service points across both the Songkhla and Phatthalung campuses. These locations include the Administrative and Central Office Building, staff dormitories, student dormitories, school dormitories, classroom buildings, and Cafeteria 1 and Cafeteria 3. The results confirm that the drinking water meets all required standards.

Public evidence: https://tsu.ac.th/home/details.php?aNum=20240423052028&id=3555&gid=2