

The Center for Academic Services, Walailak University in collaboration with Associate Professor Dr. Laksanara Khwanchum from the School of Management, and relevant public and private sector networks such as the Village Water Supply Community Enterprise of Village No. 15 and the Ban Laem Homestay Community Enterprise of Village No. 7, jointly developed a project to address the needs of the community. The community has been facing issues related to the management of the village water supply, including concerns about the quality of the water, unclear procedures for collecting fees, difficulties with bookkeeping and balancing costs, and water quality problems. As a result, the team initiated the Water (WR) project to align with the UI GreenMetric and Sustainable Development Goals (SDGs) 6 and 13.

In the first year, the project focused on knowledge management (ED 4) through activities related to village water supply system management, coupled with educating the community on water and wastewater management. This aims to lead to proper household wastewater management and address waste from fishing activities and other local occupations (WR 2). Additionally, the management process of the village water supply serves as an activity to raise awareness and ensure sustainable resource use while reducing greenhouse gas emissions. It also promotes community learning on local climate change risks, impacts, solutions, and early warnings, helping the community to adapt and plan for disasters that could affect their livelihoods and environment. This is aligned with SDG target 13.3.1.

Moreover, the project aligns with SDG indicators 6.5.1, focusing on educating communities on effective water management, and 17.2.1, emphasizing collaboration with various networks and related agencies. The objective is to raise awareness and promote knowledge about climate change, especially concerning household wastewater management and the village water supply system, in order to improve the quality of life for community residents and visitors, ultimately enhancing the local economy.

Walailak University's School of Management also aims to enable professors to demonstrate their potential by transferring knowledge to the community. This is done by analyzing course content and organizing academic service activities/projects that align with the community's needs. Knowledge is shared either directly or through students, who are seen as the key product of the school. The goal is for students to learn through real-world experiences with professors, developing a positive attitude toward community service and society. There is also a plan for academic services and social engagement with target communities. The academic service project is integrated into courses such as Environmental Conservation and Global Warming, and Sustainable Tourism, emphasizing field practice and teamwork development by collaborating with community networks.

The project's activities and use of knowledge and technology include:

1. Coordinating with community leaders to visit and discuss community needs regarding household wastewater management and the village water supply system. The activity aims to raise awareness of sustainable resource use and reduce greenhouse gas emissions.
2. Developing a project proposal after consulting with community leaders and community enterprises, followed by discussions between professors, academic service center staff,

and community leaders to determine feasibility and create a project plan. Knowledge of village water supply management and design, along with plans from the Water Allocation Division, Department of Water Resources, Ministry of Natural Resources and Environment, is used to assess the condition of the village's water system managed by the community enterprise.

3. Organizing an event to introduce the project and educate the community on climate change impacts on water resources and efficient water management to reduce wastewater and the water footprint.
4. Conducting activities to manage water resources efficiently to reduce household wastewater by collecting field water samples for preliminary quality testing from various points such as raw water intake, post-coarse filtration, school water supply, and water discharge 2 points.
5. Presenting project outcomes and disseminating information to the community.

The outcomes of the project include raising awareness and understanding among the residents of Ban Laem, Village No. 7, and Village No. 15, Na Thap Subdistrict, Tha Sala District, Nakhon Si Thammarat, regarding climate change and wastewater management. This also enhanced the village water supply system, improving the quality of life for residents and visitors (social aspect), reducing water usage, leading to less community wastewater, lowering the water footprint, reducing greenhouse gas emissions, and creating ecological balance and a healthy environment (environmental aspect). The project also boosted local tourism, coastal fisheries, and drinking water businesses (economic aspect) while ensuring efficient water usage throughout the year. Furthermore, students engaged with the community to collect and analyze water quality data, which was provided to the village water supply community enterprise to improve management efficiency, reducing costs without compromising water quality. The project's success is measured by the community's knowledge gain and satisfaction rate of over 90%, with the latest evaluation showing a 96% satisfaction rate.