

REPORT WALAILAK UNIVERSITY 2022 – 2023

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The Events of conservation and Sustainable Utilization of Watershed Forest and Local Plants

Walailak University is actively engaged in the "Children's Forest Conservation Project: Raising youth awareness of protecting watershed forest and local plants, 2022" by organizing events that aimed to promote conservation and sustainable utilization of land, including the watershed forest and local plants at the area of Ban Ai Mi community, Village No. 5, Wang Ang Subdistrict, Cha-Uat District, Nakhon Si Thammarat Province.



The events were :

◆ Trekking activity to learn about the watershed ecosystem and local plant species of the community on the nature trail

Activities to plant native trees to expand the water-absorbing forest area along the creek edge and in the community arable land, which will increase the water-absorbing forest area and increase trees for future occupation and income

 Activities to disseminate knowledge about ways to use local plants as food and toys

Activities to promote people's basic knowledge in grafting and cuttings for community self-reliance on planting and propagating trees



The Bio-diversity Conservation at Walailak University

Walailak Botanic Park (WBP) is a learning center on ecology and conserving biodiversity in the university's original forest area with a variety of native plants and birds living in the protected areas of the botanical park.

As Walailak University strives to conserve and expand the existing ecosystems and biodiversity of plants and animals, the WBP grounds are well-designed to serve various ecology conservation functions and promote bio-ecological



Herbal Garden, with its collection of over 200 types of local and rare medicinal plants grown in an area of 16,000 square meter

Banana orchard farm, with more than 100 different types of bananas from all over the country

• Drought-resistant greenhouse/ desert trees

◆ The Nepenthes greenhouse, which collects various species of Nepenthes plants – local species, commercial species and new species of Nepenthes discovered by researchers from Walailak University, propagated and grown in the greenhouse with the environment adjusted to imitate their natural ecosystem.

Ginger and galangal plants being collected and propagated, including the common and the rare ones in ginger and galangal family.

◆ Bamboo Living Collection, which is a collaboration with the Thasala Rotary Association to grow and collect bamboo species from all over Thailand, with a focal point on the varieties in Nakhon Si Thammarat and the southern region; the area promotes bamboo planting, propagation, and research work on bamboo consumption.

The Learning Center for Sustainable Agricultural at Ban Khao Wang Community

Ban Khao Wang community is another Pak Phanang upstream community that has integrated farming, also known as Suan Samrom (multispecies cropping system), where various types of crops are grown in the same plot. The community's flagship is to run safe agriculture by using biological substances instead of chemicals in agriculture so that they can restore and maintain the communal upstream ecosystem from which natural water supply is drawn for household consumption.

Walailak University by the Multispecies Cropping System Community Research Center Project Following in King's Footsteps, Ban Khao Wang, has carried out educational program for local communities on sustainable management of land for agriculture and tourism. The programs include a training program to educate farmers on using biological substances (*Trichoderma asperellum strain NST-009, Metarhizium anisopliae, Beauveria bassiana*) in place of chemicals, thus raising more awareness on ecosystem.

After receiving the Sippanondha Ketudat Award, a continuation of the Green Globe Award, Community Category in 2022, the community operates community nature study trails as a learning center and welcome visitors to learn the agricultural methods of multilayer cropping system.



The Stakeholder Participation in Conservation and Restoration of Upstream Ecosystems

Walailak University has carried out action research under collaboration with local community to conserve and restore the shared land ecosystem of upstream community at Ban Khao Wang Community, an important watershed area of Nakhon Si Thammarat Province. Not only conserving and restoring the watershed ecosystem in the community, the project also helps preserve the water resources that supply the larger group of Nakhon Si Thammarat people. The conducted activities include the creation of database of local plant species in the nature study routes, educational training on ecosystem-friendly farming by the use of biological substances in place of chemicals, training in cardamom tree value-added product development, and planting trees and creating weirs for watersheds. These activities are made possible by cooperation with Ban Khao Wang Conservation Group, Ban Khao Wang Border Patrol Police School, and the support of related agencies: Forest Resource Management Office No.12 (Nakhon Si Thammarat), Ron Phibun District Agricultural Extension Office.



Steady provision of activities and promotion of ecosystem understanding make the community a learning hub on conservation and restoration of upstream ecosystems, as well as on ecosystem-supported farming, that attracts visitors from within the province, the region and from all over the country to exchange knowledge. Ban Khao Wang community has received the "Green Globe Award" in the community category for resource management, the National runner-up award for community forest and large tree management inheritance of the land of Nakhon Si Thammarat Province.

