

WALAILAK UNIVERSITY

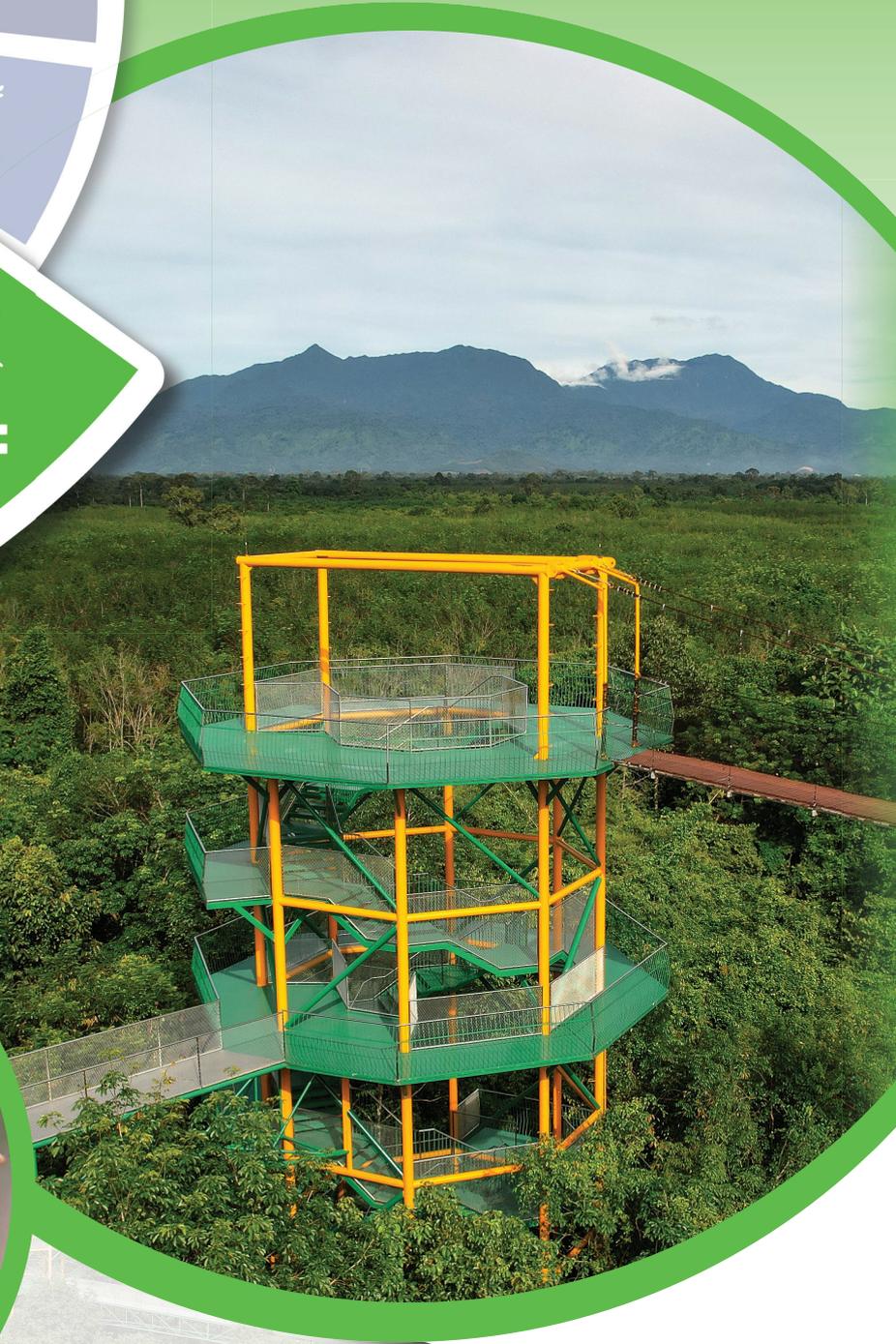


SDG

REPORT 2023-2024



SUSTAINABLE DEVELOPMENT GOALS



LIFE ON LAND

15

-  **The Maintaining and Extending Biodiversity of Plants and Animals at Walailak University**
-  **The Events for Sustainable Land Use and Conservation**
-  **Ecosystem Education and Conservation Initiatives at Walailak Botanic Park for Local and National Communities**





The Maintaining and Extending Biodiversity of Plants and Animals at Walailak University



Walailak University (WU) is not only the largest university in terms of land area but also a key player in the conservation and restoration of ecosystems. With a vast expanse of 14,400,000 m², the university is home to a rich diversity of ecosystems, including original forests and wetlands. The establishment of the Walailak Botanic Park (WBP) over 2,160,000 m² serves as a critical hub for both maintaining and extending the biodiversity of these ecosystems, particularly those under threat.

■ Maintaining Ecosystems and Biodiversity

WU is working directly to maintain the integrity and biodiversity of its ecosystems through the WBP. The university has designated conservation zones to prevent land-use changes in the original forest areas, ensuring their preservation as protected and conservation forests. Additionally, the WBP focuses on the natural restoration of previously disturbed lands, such as those once used for rubber plantations and settlements, by allowing these areas to regenerate without human intervention. Also, WBP eliminates giant snake-head fish in the reservoir to reduce their population so that other local fish species can proliferate. This approach supports the natural recovery of plant and animal populations, thereby maintaining the ecological balance.

■ Extending Ecosystems and Biodiversity

In addition to maintaining existing ecosystems, WU directly works to extend and enhance the biodiversity within its grounds. The WBP undertakes initiatives to propagate and reintroduce native plant species, particularly those that are rare or under threat. For example, the university has engaged in the propagation of local orchids through tissue culture, with the goal of reintroducing these plants into the forest within the conservation areas. The WBP also encourages community involvement in ecosystem restoration efforts. Faculty, staff, students, and visitors are invited to participate in tree planting activities during the rainy season, helping to restore native plant populations.



Through the efforts of the WBP, WU has successfully implemented programs that both maintain and extend the biodiversity of local ecosystems. By preserving original forests, supporting natural regeneration, and actively involving the community in conservation efforts, the university plays a crucial role in safeguarding and enhancing the biodiversity of southern Thailand. These initiatives not only protect ecosystems under threat but also contribute to the broader goal of sustainable natural resource management.





Ecosystem Education and Conservation Initiatives at Walailak Botanic Park for Local and National Communities

Walailak University (WU) has implemented educational programs on ecosystems, encompassing both flora and fauna, for local and national communities through its Walailak Botanic Park (WBP). The WBP serves as a key learning center for ecosystems in the Upper Southern region of Thailand.

These programs focus on both the conservation and expansion of knowledge regarding ecosystems, enabling learners to apply this knowledge to the conservation and development of natural resources in their own communities.

Education on Flora: WBP has been actively involved in the conservation of plant genetics and biodiversity since 2014 through the Plant Genetic Conservation Project Under the Royal Initiative of Her Royal Highness Princess Maha Chakri Sirindhorn (RSPG). This project emphasizes the preservation of plant diversity through supporting research, providing training for local communities and schools, and establishing educational resources such as the Banana Genetic Collection Garden, the Herbal Garden, Orchid and Fern Houses, and the Bota Sky Tower. These initiatives are designed to promote sustainable conservation and development of plant resources.

Education on Fauna: In addition to plant-related education, WBP also offers programs on wildlife and bird conservation, focusing on small wildlife and bird species in the protected forest areas. These programs include nature trails, bird watching, and youth camps aimed at fostering a deeper understanding of wildlife conservation. Practical activities such as taxidermy and microscopy are also offered to enhance participants' comprehension of ecosystems and wildlife conservation at both the local and national levels.



WU has successfully implemented educational programs on ecosystems, covering both flora and fauna, for local and national communities. These programs emphasize both conservation and the expansion of knowledge through various activities and projects that encompass plant and wildlife education, promoting sustainable natural resource conservation.



The Events for Sustainable Land Use and Conservation

WU is committed to promoting the conservation and sustainable use of land, focusing on preserving biodiversity and revitalizing traditional practices. By organizing events that engage the community, WU ensures that natural resources are used responsibly and that indigenous knowledge is preserved.



One of WU's key initiatives is the RSPG program focused on conserving and sustainably using the native mangrove fan palm. The event aimed to revive traditional uses of the plant by collaborating with local communities to document and preserve knowledge on making mats, hand fans, and local desserts. It also encouraged community participation in learning and teaching these practices to future generations.

Another notable initiative is the Children's Forest Conservation Project, which educates youth about local ecosystems and sustainability. Through guided treks, participants learn about the local watershed and native plants, fostering a deeper understanding of the environment. The project also teaches sustainable practices, emphasizing the responsible use of natural materials in daily life. Additionally, it involves the propagation of native species, contributing to the restoration and preservation of local forests, thereby supporting biodiversity.

Through these events, WU plays a vital role in conserving local ecosystems and promoting sustainable land use. These initiatives ensure the preservation of natural resources and traditional knowledge, fostering a sustainable future for the community.





Collaborative Efforts in Maintaining Shared Land Ecosystems: Walailak University and Baan Khao Wang Community Partnership



Shared land ecosystems are vital for the well-being of entire communities, as they provide resources and benefits that extend beyond individual ownership. Recognizing this, Walailak University (WU) collaborates with local communities to maintain and conserve these shared ecosystems. A key example of this collaboration is the partnership with the Baan Khao Wang Conservation Group and Ban Khao Wang Border Patrol Police School, focused on the Khao Wang community watershed area in Nakhon Si Thammarat Province.



One of the major initiatives under this collaboration is the Children’s Forest Conservation Project: Inheriting the Wisdom of the Ban Khao Wang Community. This project aims to instill a sense of environmental responsibility in the youth while passing down indigenous knowledge about local plant species and sustainable practices. Key activities include:

Forest Exploration:

Youth from the community, along with students from WU, explore the forest to learn about watershed ecosystems and native plant species. This hands-on experience helps them understand the importance of conserving these ecosystems.



Training on Natural Material Use:

Youth from the community, along with students from WU, explore the forest to learn about watershed ecosystems and native plant species. This hands-on experience helps them understand the importance of conserving these ecosystems.

Plant Propagation:

The project emphasizes the propagation of local plants, teaching youth and students methods to expand plant populations. This activity supports the long-term sustainability of the shared land ecosystems.



Through these collaborative efforts, students and community members alike gain a deeper appreciation for the shared land and its resources. They learn about traditional agricultural practices, such as multilayer cropping systems, which help conserve water and maintain the health of the ecosystem. The Baan Khao Wang community’s efforts in these areas have not only preserved their environment but also turned their community into a model for sustainable living, recognized by the Green Globe Award in 2017 and 2023.

WU’s collaboration with the Baan Khao Wang community highlights the importance of maintaining shared land ecosystems. By working together, they ensure that these ecosystems remain healthy and productive, benefiting the entire community for generations to come. This partnership serves as a powerful example of how collaborative conservation efforts can lead to sustainable resource use and strengthen community resilience.

