RUTS | SDG 2025

SDG 15

LIFE ON LAND

15 LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss



https://sdgs.rmutsv.ac.th/evidence-2025/sdgs-15

Supporting Land Ecosystems through Education

Rajamangala University of Technology Srivijaya (RUTS) promotes biodiversity conservation through environmental education, professional training, and community outreach. In collaboration with Thung Song Municipality and conservation specialists, the university developed the Eco-Map Curriculum based on the BEEE framework—Biodiversity, Ecosystem, Energy, and Equality—across six municipal schools. Activities included insect surveys, wildlife observation, and ecosystem-based learning. In October 2025, participating schools presented their educational outcomes at an exhibition attended by 40 representatives and visitors from environmental organisations and partner institutions.







RUTS also promotes wildlife conservation education through community-based training. In May 2025, the university organized a snake conservation workshop in Yala Province, supported by Save The Snakes, USA. The programme trained 30 participants in snake ecology, identification, safe handling, humane relocation, and conservation communication. Additionally, a community bird-watching programme at Sirindhorn Botanic Garden, Thung Song, engaged more than 100 participants, including students, teachers, families, and community members. These activities strengthened public understanding of wildlife ecology and the importance of protecting natural habitats.



The university further integrates environmental sustainability into agriculture and tourism education. In December 2025, the Faculty of Agriculture collaborated with the Ron Phibun District Agricultural Office to train 20 farmers in producing Bacillus-based fermented liquid biofertiliser for biological plant disease management and plant growth promotion. An international sustainable tourism programme involving 85 lecturers and students from RUTS and Universiti Utara Malaysia also promoted environmental awareness, responsible tourism, and community-based learning.



Supporting Land Ecosystems through Operational Practices

RUTS implements institutional policies and practical management measures to support sustainable resource use, biodiversity protection, and environmentally responsible campus operations. These initiatives demonstrate how sustainability principles are incorporated into routine university activities, agricultural production systems, and local environmental collaboration.

The Faculty of Agriculture at Thung Yai promotes sustainable on-campus food production through responsible vegetable cultivation and poultry management. Greenhouse vegetable production incorporates crop-health monitoring, quality inspection, and appropriate harvesting practices, while poultry operations emphasize animal health, nutrition, housing management, and welfare. These practices provide safe agricultural products and support practical learning in sustainable farming systems.




The university also applies management practices intended to prevent the uncontrolled spread of alien plant species within agricultural areas. Under its alien-species management policy, Napier grass (Cenchrus purpureus) is harvested and utilized as fresh forage and fermented livestock feed. Regular harvesting supports controlled plant growth and productive use of agricultural resources while providing students with practical experience in responsible forage management.





Biodiversity protection is further supported through institutional collaboration with Thung Song Municipality. RUTS maintains a policy commitment to terrestrial ecosystem conservation and works with local stakeholders to support the protection of limestone-hill habitats and threatened wildlife. These areas provide important ecological conditions for amphibians, reptiles, and other terrestrial organisms. The university's participation in biodiversity monitoring and conservation-related activities contributes scientific information that can inform environmental planning and habitat management.



Waste Disposal with Consideration for Land Ecosystems

RUTS recognizes responsible waste management as an essential component of environmental protection and sustainable institutional operations. The university implements policies and practices addressing plastic waste reduction, waste separation, recycling, hazardous waste disposal, and laboratory biosafety to minimize potential risks to terrestrial ecosystems and environmental quality.

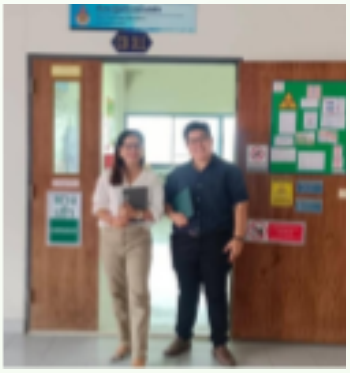
On World Environment Day 2025, RUTS Trang Campus, in collaboration with environmental organizations and community partners, organized activities under the theme of reducing global plastic pollution. The programme included educational exhibitions involving 17 organizations, waste-separation demonstrations, recycling activities, and initiatives encouraging the reuse of discarded materials. These activities promoted responsible waste-management behavior among students, university personnel, and surrounding communities.



Hazardous waste management is implemented through laboratory safety procedures and operational standards. Since 2024, the Plant Pathology Laboratory (CB311), Faculty of Agriculture, Nakhon Si Thammarat Campus, has maintained safety management practices covering potentially hazardous biological and chemical materials, alongside biosafety requirements for research activities.

In 2025, the Plant Pathology Laboratory obtained safety certification associated with the National Research Council of Thailand (NRCT), Certificate No. 16-2025/00001. The laboratory successfully completed a peer evaluation covering eight safety components. The laboratory achieved 92.00% for hazardous waste management and 100% for the component addressing biosafety-related requirements, providing measurable evidence of its implementation of laboratory safety standards.





Research on Terrestrial Ecosystems and Biodiversity Conservation

The university conducts ecological studies to document biodiversity, investigate wildlife distribution, assess habitat conditions, and generate scientific information that can support evidence-based conservation and sustainable ecosystem management.

One of the university's major biodiversity research initiatives examined amphibian and reptile diversity in Thung Song Municipality, Nakhon Si Thammarat Province, between May 2024 and March 2025. Researchers investigated ten study sites, comprising five areas with relatively high levels of human disturbance and five with lower disturbance levels. Field surveys documented 17 amphibian species and 39 reptile species, providing a total of 56 recorded species. The findings highlighted the ecological importance of urban and surrounding limestone habitats, including their role in supporting threatened and habitat-associated wildlife.

The research documented species of conservation concern, including the Critically Endangered Elongated Tortoise, Endangered Asian Box Turtle, and Vulnerable Beautiful Pit Viper. These records emphasize the importance of protecting specialized habitats and maintaining biodiversity in landscapes affected by human development. Research findings were also communicated through the educational publication Amphibians and Reptiles of Thung Song, supporting public access to biodiversity information.



In 2025, additional biodiversity monitoring focused on limestone-hill ecosystems and the beautiful pit viper (Trimeresurus venustus), a species associated with limestone habitats and listed as Vulnerable on the IUCN Red List. Researchers conducted nocturnal field surveys in collaboration with wildlife specialists and local conservation groups to document species occurrence and habitat conditions. These investigations contributed ecological information relevant to threatened-species monitoring and future habitat-conservation planning.



RUTS also supports research-informed biodiversity protection through participation in conservation-related academic networks and activities involving IUCN assessment approaches. By connecting scientific investigation with local authorities, schools, conservation organizations, and communities, the university promotes the application of ecological knowledge to environmental education and conservation planning.

