

WALAILAK UNIVERSITY



SDG

REPORT 2023-2024



SUSTAINABLE DEVELOPMENT GOALS



# CLIMATE ACTION

# 13

-  The Collaboration to Inform and Support Local Government About Climate Change
-  Working with NGOs and Governments on Climate Adaptation
-  WU Commitment to Carbon Neutral University by 2030
-  The Platform Monitoring and Predicting Droughts Caused by Climate Change





# The Collaboration to Inform and Support Local Government About Climate Change



Climate action is a key focus for Walailak University (WU), given its critical importance in addressing climate change.

Recognizing the magnitude of this issue, WU is not only implementing climate-related initiatives within its own campus but is also collaborating with local and regional governments. In line with government missions, the university is playing a crucial role in the Project for Enhancing the Capacity of the Provincial Office of Natural Resources and Environment to Develop Climate Change Plans at the Provincial Level, which aims to inform and support five provinces in the upper southern region of Thailand.



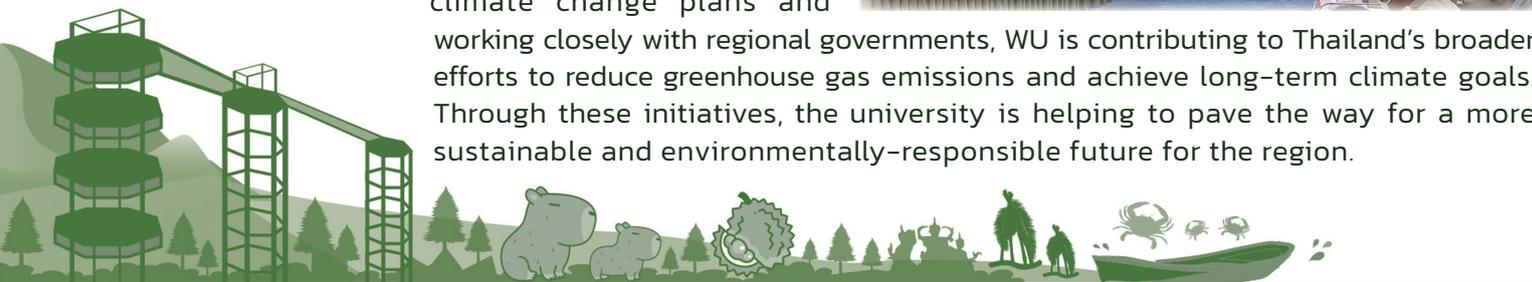
As a consultant for this project, WU is working closely with the Provincial Offices of Natural Resources and Environment in Nakhon Si Thammarat, Trang, Phatthalung, Chumphon, and Ranong. The primary objective is to inform and support local government in collecting and reporting greenhouse gas data, establishing a robust database for these provinces. Additionally, the project involves analyzing potential measures to reduce greenhouse gas emissions, ensuring that the strategies align with the specific contexts of each province. These efforts are guided by the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) and are aligned with Thailand’s national commitments, as announced by the Prime Minister at the COP26 meeting, to achieve carbon neutrality by 2050 and net-zero greenhouse gas emissions by 2065, in line with Thailand’s Long-Term Low Greenhouse Gas Emission Development Strategy, targeting a 30% reduction in greenhouse gas emissions by 2030.

In the fiscal year 2023, WU facilitated meetings with various provincial-level government agencies responsible for climate change in the upper southern region, including the Provincial Energy Offices, Provincial Public Health Offices, Provincial Land Transport Offices, and Provincial Industrial Offices, and others. These meetings aimed to gather information on greenhouse gas emissions and discuss existing plans, projects, and measures for reducing these emissions. The insights gained from these discussions are being used to develop a framework for future activities that will lead to the creation of effective provincial greenhouse gas reduction plans.



WU’s involvement in this collaborative project underscores its commitment to climate action and sustainable development. By supporting the development of provincial-level climate change plans and

working closely with regional governments, WU is contributing to Thailand’s broader efforts to reduce greenhouse gas emissions and achieve long-term climate goals. Through these initiatives, the university is helping to pave the way for a more sustainable and environmentally-responsible future for the region.





## Working with NGOs and Governments on Climate Adaptation

Addressing climate change effectively requires collaboration between multiple stakeholders, including universities, government agencies, and NGOs. In 2023, Walailak University (WU) recognized this need and collaborated with NGOs like the Save Andaman Network Foundation (Trang) to enhance climate adaptation efforts. This collaboration is part of WU's broader commitment to environmental education and sustainable development.



WU, in collaboration with the Save Andaman Network Foundation and government agencies, held meetings at the Division of Public Health and Environment to gather feedback on climate change risk assessments in Trang Province. WU researchers presented key data on natural disasters from 2016 to 2020, based on the Trang Provincial Disaster Prevention and Mitigation Plan (2021-2027), including statistical analyses and future risk predictions from the Office of Natural Resources and Environmental

Policy and Planning. Representatives from the Trang Provincial Climate Change Working Group and NGOs assessed climate change risks using Impact Chain Analysis, prioritizing six key areas based on the National Adaptation Plan. Feedback from these sessions helped develop a comprehensive Risk Profile report to guide the climate adaptation action plan for Trang Province.

The collaboration between WU, government agencies and NGOs underscore the importance of multi-stakeholder engagement in tackling climate change. By leveraging the expertise of various agencies and incorporating public feedback, WU is contributing to a well-rounded approach to climate adaptation in Trang Province.



## WU Commitment to Carbon Neutral University by 2030

WU is dedicated to advancing climate action and enhancing its reputation as a Sustainable Green University for Well-being. Aligned with the university's development strategy (2023-2027), WU has a target date to become a carbon-neutral university by 2030, according to with Thailand's Greenhouse Gas Reduction Framework. This commitment is a central focus of the university's strategic plan, emphasizing the importance of internal climate action management to achieve sustainability goals.

WU conducted a carbon footprint evaluation with the Thailand Greenhouse Gas Management Organization (TGO), covering three key emission scopes: Scope 1 (direct emissions), Scope 2 (indirect emissions from electricity), and Scope 3 (other indirect emissions). The findings showed that WU emitted about 10,436 tonneCO<sub>2</sub>eq, with 85.06% of Scope 2 activities related to electricity use.

To achieve carbon neutrality by 2027, WU launched projects to reduce greenhouse gas emissions, including the Low Emission Support Scheme (LESS) in the stationary energy sector. Upgrading to energy-efficient lighting reduced emissions by 2,038,622 kgCO<sub>2</sub>eq, and installing high-efficiency air conditioning units cut an additional 5,887,630 kgCO<sub>2</sub>eq, totaling a reduction of 7,926,252 kgCO<sub>2</sub>eq. WU is also measuring carbon sequestration in plant biomass as part of the T-VER forest sector project. In a 1,600 sq. m. sample plot at Walailak Botanic Park, the project found that 84 trees sequestered 38.21 tonneCO<sub>2</sub>eq.

Through its strategic initiatives, WU is making significant strides toward achieving carbon neutrality by 2027, as outlined in its development strategy. By meticulously evaluating its carbon footprint and implementing targeted emission reduction projects, WU is not only addressing its current environmental impact but also laying the groundwork for a sustainable future. These efforts underscore WU's commitment to fulfilling its role as a leader in climate action, contributing to global sustainability goals, and achieving carbon neutrality in alignment with the Greenhouse Gas Protocols.





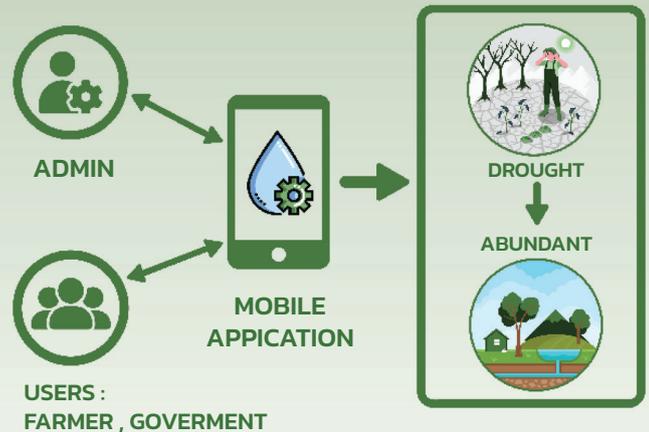
# The Mobile App for Monitoring and Predicting Droughts Caused by Climate Change



In 2023, Walailak University (WU), through its Center of Excellence for Sustainable Disaster Management, played a pivotal role in informing and supporting local and regional government agencies in Nakhon Si Thammarat Province on matters of climate change disaster risk, early warning, and monitoring.

Recognizing the challenges posed by climate-induced droughts, particularly in agricultural regions, WU collaborated with key government agencies such as the Agricultural Research Development Agency (Public Organization) under the Ministry of Agriculture and Cooperatives, the Royal Irrigation Department under the Ministry of Agriculture and Cooperatives, and the Department of Provincial Administration under the Ministry of Interior, including village headmen and village chiefs from Don Tako Subdistrict, Tha Sala District, and In Khiri Subdistrict, Phrom Khiri District, Nakhon Si Thammarat Provinceto develop a comprehensive water management mobile app.

## Water Management Mobile App.



This mobile app was specifically designed to aid farmers and government officials in Don Tako Subdistrict, Tha Sala District, and In Khiri Subdistrict, Phrom Khiri District, Nakhon Si Thammarat Province, by providing real-time data and tools for monitoring and predicting water availability. Through the mobile app, WU facilitated monthly water balance analyses based on the specific water demands of farmers and the available water resources. By inputting farm coordinates, crop types, and planting schedules into a mobile application, users received tailored guidance on water management.



The university also organized training and testing sessions for local government officials and farmers, enabling them to use the platform effectively to anticipate and manage drought conditions. These efforts not only equipped the local communities with advanced tools for early warning and monitoring but also strengthened the overall capacity of the regional government to respond to climate change-related risks. Through these initiatives, WU provided vital information and support to ensure that local and regional governments are better prepared to handle the challenges of climate change, particularly in the realm of disaster risk management.

regional governments are better prepared to handle the challenges of climate change, particularly in the realm of disaster risk management.

In conclusion, WU has made significant strides in enhancing climate change resilience in Nakhon Si Thammarat Province through its Center of Excellence for Sustainable Disaster Management. These efforts have not only strengthened the capacity of local and regional governments to manage disaster risks but have also set a strong foundation for ongoing climate adaptation and resilience-building in theregion.

