Annual Report
on SDG13 Climate Action

13.3 Environmental Education Measures

13.3.4 - Does your university as a body inform and support local or regional government in local climate change disaster/risk early warning and monitoring?

Thaksin University serves as a platform for sharing knowledge on disaster risks associated with global warming and climate change. In 2025, the University supported knowledge exchange and collaboration with partner organizations through the following activities.

Dissemination of Knowledge and Early Warning Innovations

Thaksin University, together with Prince of Songkla University, Pattani Campus; Yala Rajabhat University; Princess of Naradhiwas University; and the Program Management Unit on Area Based Development (PMU A), organized the 1st International Conference on Disaster Risk Management for Strengthening Resilience and Sustainability in Communities 2025 (ICDRM2025). Held under the theme “Strengthening Integrated Disaster Management to Empower Communities and Sustainability in Disaster Risk Reduction”, the conference took place on 17–18 July 2025 at Prem Music Hall and the 50th Anniversary Building, Thaksin University, Songkhla Campus, with more than 200 participants. Topics included preparedness and early warning, climate risks, and community recovery. Presentations featured an IoT-based flash flood warning system in Srinagarindra District, Phatthalung Province, and prototype applications for disaster risk reduction, demonstrating the dissemination of innovations through a conference co-organized by the University.

International keynote speakers included Professor Dr Alice Yuen Loke of The Hong Kong Polytechnic University, who presented “Proactive Policy Framework for Disaster Management in the Asia-Pacific Region”, and Professor Dr Joanne Langan of Saint Louis University, USA, who presented “Integrated multi-disciplinary disaster management based on community engagement

and driven by technology and innovation". Other experts from Japan and the United States also contributed to the conference.

Research presentations were organized into four thematic areas: (1) community empowerment and local knowledge for disaster risk reduction; (2) science, technology and innovation for preparedness and early warning; (3) climate change, environmental risks and sustainable recovery; and (4) governance, policy and multi-stakeholder collaboration in disaster management.

The conference also featured an exhibition of innovations for integrated disaster management presented by educational institutions and local partners. Thaksin University contributed to the exhibition, which included:

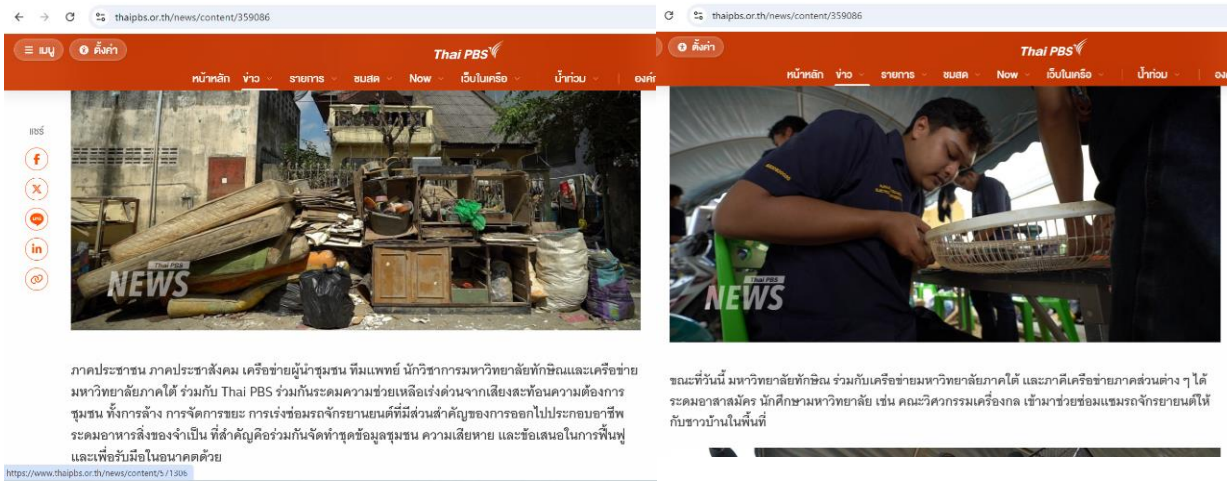
- A model disaster shelter developed by Thaksin University
- An IoT-based flash flood warning system in Srinagarindra District, Phatthalung Province
- Life jackets made from natural rubber
- Energy bars made from local ingredients in Phatthalung Province for disaster response
- Flood-resilient fish farming systems to strengthen household food security
- Prototype applications for disaster risk reduction in small-scale fisheries and flood risk reduction among vulnerable groups



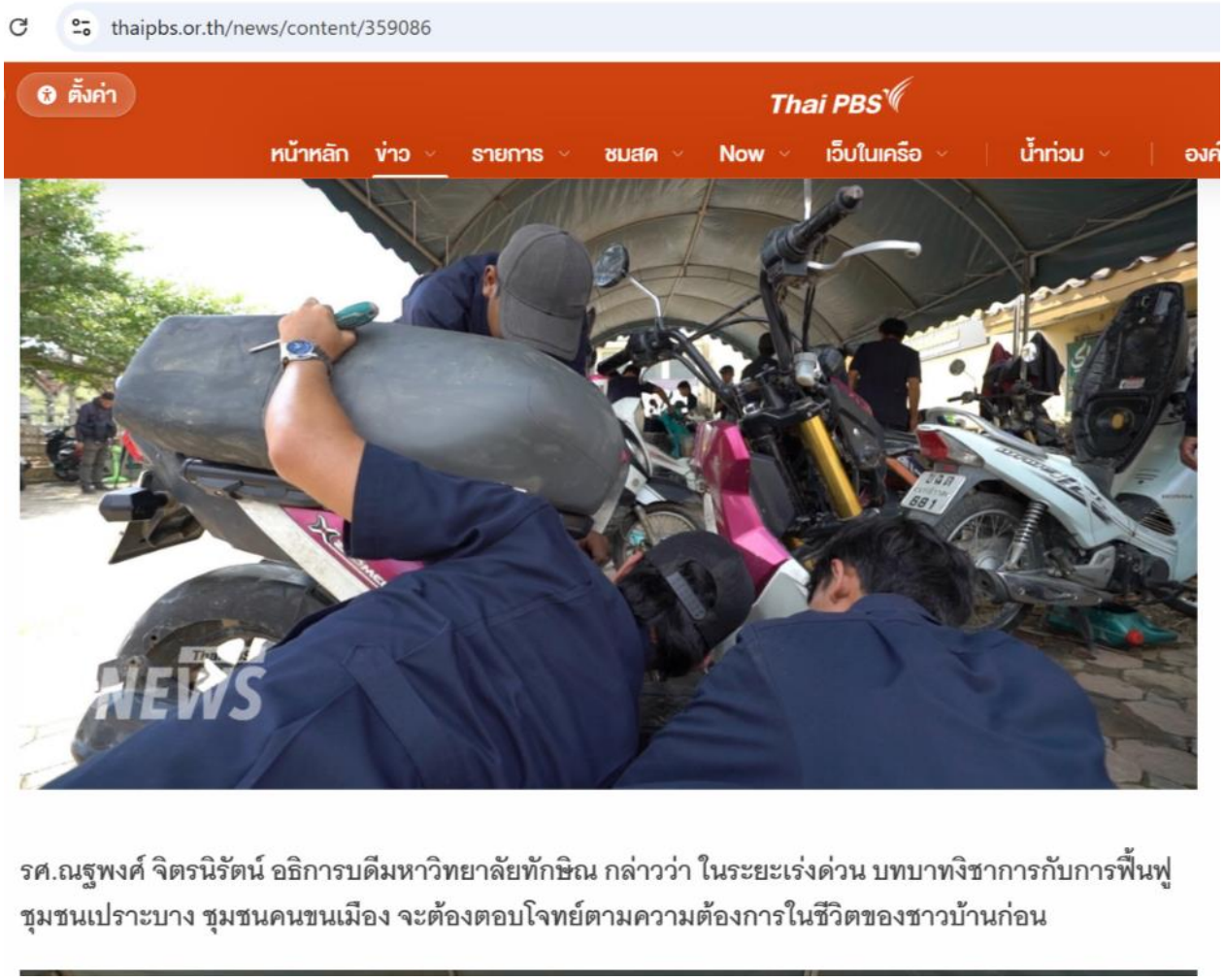
Source: https://m.tsu.ac.th/home/details.php?id=5335

Linking Community Data with Future Disaster Preparedness

Thaksin University academics worked with civil society networks and universities in southern Thailand to collect community information, document damage, and develop proposals for recovery and future preparedness. University students, including those studying mechanical engineering, also helped repair motorcycles for local residents. These activities demonstrate the University's contribution to documenting conditions in at-risk areas and supporting affected communities.



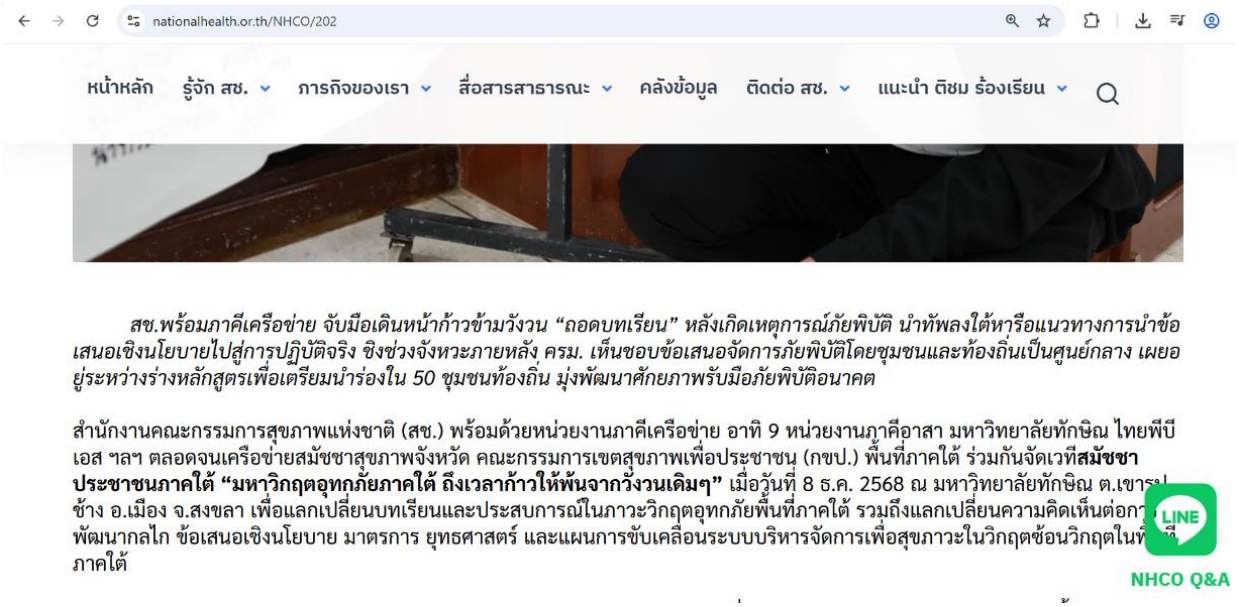
Source: https://www.thaipbs.or.th/news/content/359086



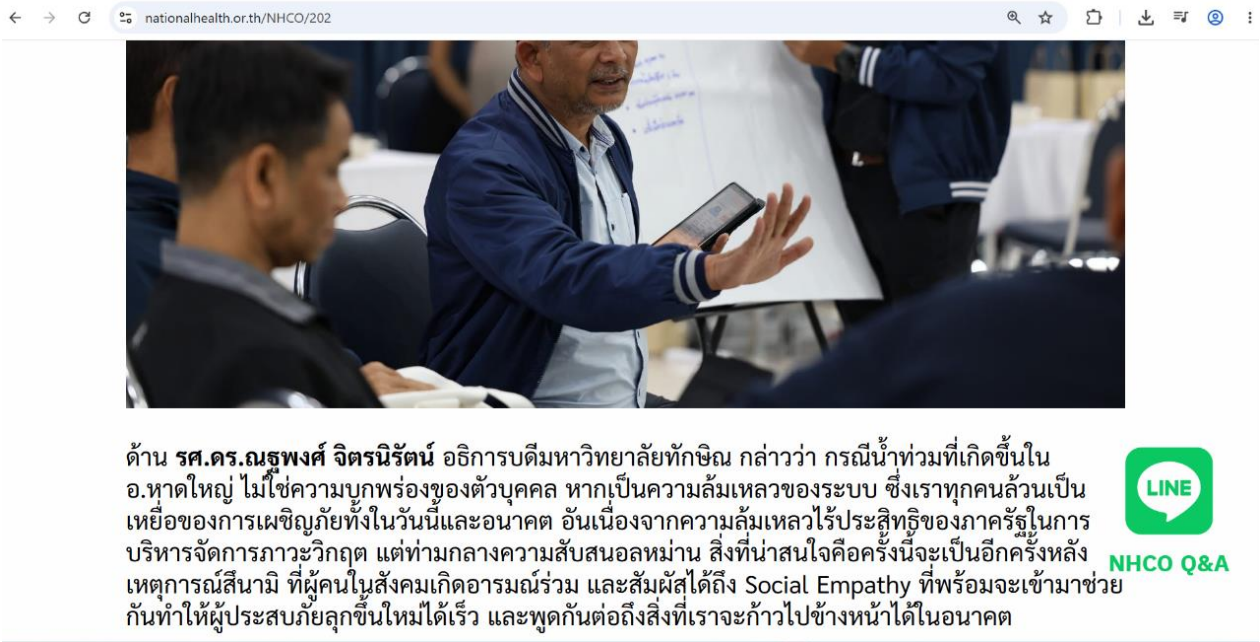
Source: https://www.thaipbs.or.th/news/content/359086

Supporting Policy Proposals for Disaster Management

The University, in collaboration with the National Health Commission Office and partner organizations, hosted a Southern People's Assembly forum at Songkhla Campus on 8 December 2025 to discuss local flood response mechanisms and measures. Community-level databases and risk maps were among the approaches proposed by participants. On 13 December 2025, Thaksin University also co-hosted discussions on community early warning systems, evacuation sites and a shared database.



Source: https://www.nationalhealth.or.th/NHCO/202





Source: https://www.nationalhealth.or.th/NHCO/202

On 13 December 2025, Thaksin University, together with the National Health Commission Office, the Public Policy Institute of Prince of Songkla University and partner networks, co-hosted a public discussion titled “Policy Forum: Lessons from Disasters—When Will They Be Put into Practice?” The forum invited stakeholders to exchange views, examine available resources and constraints, and identify ways to translate community-based disaster management into practical action. Topics included community early warning systems, evacuation sites and a shared database.



Source: https://policywatch.thaipbs.or.th/article/environment-156

Air Quality and Weather Monitoring to Support Local Risk Assessment

Thaksin University maintains weather monitoring equipment and particulate matter samplers for total suspended particulates (TSP), PM_{10} and $PM_{2.5}$ to support teaching, research and academic services. These monitors continuously measure and record data, and store the data in a system that monitors disasters or risks from local climate change. In the event of unusual weather conditions or related events, current data can be read and past data retrieved for immediate use. The dust sampler is always ready for use for both teaching and research. Whenever a dust risk occurs, such as forest fires in Indonesia and the Khuan Kreng peat swamp forest in Nakhon Si Thammarat Province, Thaksin University participated in dust risk measurement and assessment and always has the equipment ready for use to address future risk situations. These regional events highlight the relevance of the University's air quality and weather monitoring capacity for assessing particulate pollution risks and supporting preparedness for potential haze episodes.



Suspended particulates monitoring and measurement



Weather monitoring station