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CLIMATE ACTION



TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

Climate action to reduce the cause affecting the climate and reduce the effects from climate change

13 CLIMATE ACTION

Policy and Commitment to SDG 13: Climate action

Sakon Nakhon Rajabhat University, Fiscal Year 2025

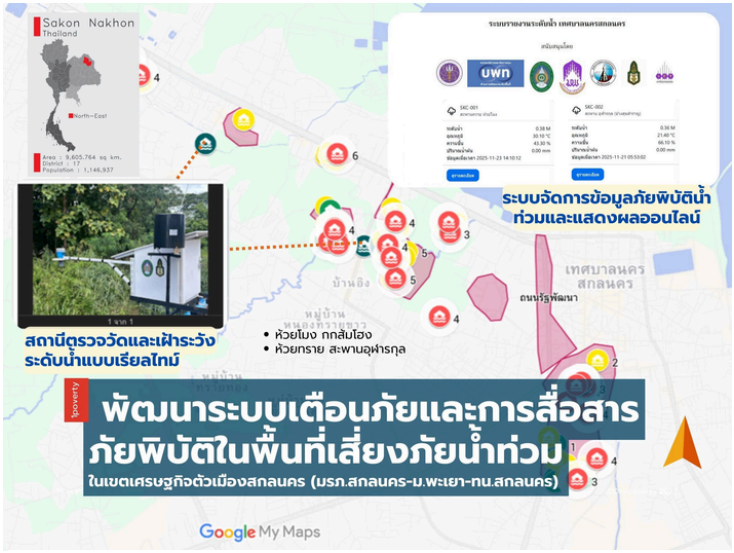
Sakon Nakhon Rajabhat University (SNRU) recognizes that climate change directly affects the Sakon Nakhon Basin through flash floods, drought, and shifting seasons that hit agriculture, the backbone of the local economy. The university has therefore built greenhouse gas reduction and climate preparedness into its management through its Energy and Environmental Conservation Policy, Green Office Policy, and Clean Energy Technology Policy, and has set up the Carbon Neutrality Center to lead this work. On mitigation, SNRU keeps an organizational greenhouse gas inventory following the GHG Protocol. From October 2023 to September 2024, the university emitted 1,261.10 tonnes of CO_2 equivalent, or 0.12 tonnes per person. Some 97% came from electricity (Scope 2) and 3% from vehicle fuel (Scope 1). These figures give the university a clear direction: improve energy efficiency, expand renewable energy, and shift to electric vehicles on campus, while protecting forests and green areas to increase carbon sequestration.

On adaptation and outreach, SNRU draws on its role as a university for local development to bring research and innovation in energy, water management, and climate-resilient agriculture to communities. It runs training, seminars, and learning materials on climate risks, impacts, mitigation, and adaptation, and it works with government agencies, the private sector, and the Rajabhat University network to build a low-carbon economy and society. The aim is for the university and local communities to be resilient and ready for climate change.

Key Activities & Projects :

SNRU maps flood risk and installs water-level monitoring in Sakon Nakhon city (Sakon Nakhon SMART Water)

After Tropical Storm Wutip flooded Sakon Nakhon City in June 2025, a Sakon Nakhon Rajabhat University (SNRU) research team launched the “Sakon Nakhon SMART Water” project. It is funded by the Program Management Unit on Area-Based Development (PMU A) and is run in partnership with Sakon Nakhon City Municipality, the University of Phayao, and a water management foundation. Researchers and students from the Citizen School surveyed flood-risk areas along three streams: Huai Mong, Huai Sai, and Huai Na Lum. Across 79 households, they identified vulnerable residents: 70 older people, 32 people with disabilities, 22 bedridden patients, and 7 young children. They then color-coded households by risk: 23 red (needing urgent help in a flood), 26 yellow (needing to prepare), and 5 green (largely self-reliant). The team installed two real-time water-level stations at Kok Som Hong Bridge on Huai Mong and Ularnkul Bridge on Huai Sai and developed an online water-level alert website. The data helps local authorities and disaster agencies plan targeted, timely help for vulnerable groups.







SNRU's Center of Atmospheric and Space Science trains Sakon Nakhon youth to monitor PM2.5 and climate change with a mobile app

On 2 December 2025, Assoc. Prof. Dr. Wilawan Khamhan, head of the Center of Atmospheric and Space Science (CASS) at Sakon Nakhon Rajabhat University (SNRU), led a workshop on strengthening climate change and PM2.5 monitoring for students of Sakon Nakhon Phatthana Suksa School, held in the school's Phra That Dum meeting room. The workshop is part of SNRU's local development project on community-network climate and PM2.5 monitoring through a mobile application. The school's director opened the workshop. Students learned how climate change and PM2.5 affect health and the environment and practiced using a mobile app to track air quality and weather in their area. They will form a youth monitoring network in their communities, passing alerts to families and neighbors and helping to reduce the risks from air pollution and climate hazards.

SNRU researcher presents tropical cloud model at WMO conference (3-7 November 2025)

From 3 to 7 November 2025, Assoc. Prof. Dr. Wilawan Khamhan, head of the Center of Atmospheric and Space Science at Sakon Nakhon Rajabhat University (SNRU), presented her research, "Developing the Tropical Cloud Model of Tropical Storm Soulik and Its Impact on Weather in Thailand," at the 11th WMO Scientific Conference on Weather Modification. The conference was held at the Indian Institute of Tropical Meteorology (IITM) in Pune, India. The World Meteorological Organization (WMO) organized the conference with leading meteorological institutes to share knowledge on weather modification, cloud model development, and climate impacts. These issues are central to future disaster management and water resource management. SNRU's participation shows the university's academic strength and its commitment to atmospheric physics research at the international level.







SNRU Environmental Science launches a climate adaptation program with a workshop on building low-carbon model communities.

On 8 December 2025, the Environmental Science program of Sakon Nakhon Rajabhat University's Faculty of Science and Technology launched its project to build the capacity of communities and schools to adapt to climate change. The project falls under the P3.2 Climate Change plan of SNRU's local development strategy, which develops community mechanisms to respond to climate change and its impacts through model cities. Its first activity was a workshop on building a model community with knowledge of greenhouse gas reduction, held at the Kram Phu Thai Kham Charoen Community Enterprise in Rai Subdistrict, Phanna Nikhom District, Sakon Nakhon.

The workshop covered climate change, the sources of greenhouse gas emissions in community activities, and ways to cut emissions in production. Enterprise members practiced applying these ideas to their own indigo-dyeing process, with the aim of becoming a model community able to manage its own carbon. The project continued on 26 December 2025 at the Ban Kham Kha Mushroom Learning Community Enterprise in Rai Subdistrict, adding training on product carbon footprints (CFP).

Key Activities & Projects :

SNRU joins forces to drive a sustainable, low-carbon creative economy

On 14 August 2025, the Carbon Neutrality Center at Sakon Nakhon Rajabhat University (SNRU) held an event under Sakon Nakhon's Creative Economy project, focused on green and carbon-neutral tourism, in the Dusita Meeting Room at Phu Phan Place, SNRU. Asst. Prof. Preechasart Meekoh, Vice President, opened the event, and Dr. Uraiwan Phunaploy, head of the Carbon Neutrality Center, presented its objectives.

SNRU signed cooperation agreements with three partners:

1. Sakon Nakhon Provincial Office of Natural Resources and Environment: climate change adaptation and sustainable management of natural resources and the environment
2. Sakon Nakhon Office of the Office of SME Promotion (OSMEP): helping SMEs become low-carbon, circular-economy businesses
3. Sakon Nakhon Tourism Industry Council: promoting and developing a sustainable low-carbon tourism industry

Experts led a panel, "Sakon Next: New-Normal Tourism, Low-Carbon Style, Driving the Creative Economy," for community enterprises, tourism, souvenir and hotel operators, students and the public. Three hotels that passed assessment were recognized as model low-carbon hotels. The event served as a shared platform for government, business, producers, service providers, and tourism operators to exchange knowledge and connect their products and services, with the university acting as the hub for building a sustainable low-carbon society.



By year's end, the work had reached communities. The Environmental Science programme in SNRU's Faculty of Science and Technology ran a project, under the P3.2 Climate Change plan, to help communities and schools adapt to climate change. It held workshops on "Building Model Communities with Knowledge of Greenhouse Gas Reduction" at two community enterprises in Rai Subdistrict, Phanna Nikhom District, Sakon Nakhon:

- 8 December 2025: the Kram Phu Thai Kham Charoen Community Enterprise, a producer of natural indigo-dyed textiles
- 26 December 2025: the Ban Kham Kha Mushroom Learning Community Enterprise, adding training on product carbon footprints (CFP), with a budget of 18,230 baht

Members learned where greenhouse gases come from in their own production and how to cut emissions across the product life cycle. The communities' indigo textiles and mushrooms are now on the path to becoming low-carbon products, and both enterprises serve as models for other communities in the province.

