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ZERO HUNGER



END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION, AND PROMOTE SUSTAINABLE AGRICULTURE



- STUDENTS HUNGER INTERVENTIONS
- THE CREATION OF A SUSTAINABLE FOOD SYSTEM FOR COMMUNITIES
- ACCESS TO FOOD SECURITY KNOWLEDGE
- UNIVERSITY ACCESS TO LOCAL FARMERS AND FOOD PRODUCERS



STUDENTS HUNGER INTERVENTIONS



SNRU Establishes Sustainable Food Security Model for Students

Sakon Nakhon Rajabhat University has established a "Household Agriculture Learning Center," alongside a dedicated "Food Production Unit" and various "Household Farming Learning Stations" on campus. These mechanisms serve a dual purpose: they function as a vital source of food production and act as knowledge transfer hubs, enabling students to acquire essential cultivation skills for self-reliance. Furthermore, SNRU has initiated proactive outreach through its "Social Engineer" program, which features the prominent "Dormitory Agriculture" activity. This initiative aims to create easily accessible food sources for students living in dormitories, encouraging them to participate directly in food production. This effort significantly reduces student expenses and fosters sustainable food security within the university grounds.



"Indie Vegetable" Garden Farm Fresh Veggie

The "Indie Vegetable Garden Plant Science" at Sakon Nakhon Rajabhat University actively contributes to student hunger interventions by serving as a sustainable source of safe, fresh, and affordable produce. The garden, managed by students and faculty, operates as a "living food bank", reducing food insecurity and improving the nutritional quality of meals available on campus. By growing their own crops, students gain the necessary skills for self-sufficiency (Indie Agriculture) and potentially supply a low-cost food source to the university community. This hands-on activity directly addresses the physiological need for food, ensuring students, especially those facing financial challenges, have access to nutritious ingredients to better focus on their studies. It integrates academic learning with a vital social mission, turning the act of farming into a crucial student welfare initiative.



SNRU Students Turn Greenhouses into Income & Meals

The Plant Science Program at SNRU integrates modern greenhouse agriculture into its curriculum, giving students expertise in cultivating high-value crops year-round. This hands-on learning serves a dual purpose: students utilize the fresh produce to supplement their own diets, addressing food security, and aggregate the surplus to sell, simultaneously building agribusiness skills and generating income through self-reliant, sustainable practices.



THE CREATION OF A SUSTAINABLE FOOD SYSTEM FOR COMMUNITIES



Upgrading the Straw Mushroom Cultivation Business of the Ban Non Tum Farmer Group (Phase 2)



The primary objective of Phase 2 of this project, targeting the Ban Non Tum Farmer Group in Sawang Daen Din District, Sakon Nakhon Province, is to transfer technology for straw mushroom spawn production to the farmers. In Phase 1, the farmers successfully learned business management and mushroom product processing skills. However, they faced a critical issue of low yields due to the poor quality of purchased mushroom spawn, leading to insufficient raw materials for processing. Consequently, the farmer group requested technical assistance in producing their own mushroom spawn. This intervention aims to significantly reduce production costs and increase farmer income and yield, ultimately strengthening the community's sustainability and securing a stable livelihood.

Training Program on Value-Added Food Product Development from Silkworm Pupae

Sakon Nakhon Rajabhat University's Food Science and Technology program trained Sang Kho farmers to standardize and innovate high-quality silkworm pupae products. Addressing current limitations in diversity and standards, the training equipped farmers with skills to meet industrial requirements and adjust products to consumer needs. This initiative successfully improves the economic value of pupae, with the gained practical expertise now integrated into three core academic courses.



Empowers Local Farmers to Build Sustainable Food System

On December 16, 2024, Sakon Nakhon Rajabhat University (SNRU) advanced the creation of a resilient and self-reliant local food system by delivering crucial agricultural machinery and innovations to representatives of 18 farmer institutions across Sakon Nakhon Province. This initiative, funded through the provincial budget, aims directly at upgrading agricultural production and farmer development through homegrown technology. The core objective is to boost the efficiency of local farming processes and reduce reliance on foreign technology, thereby making the community's food supply more secure and sustainable. The essential tools handed over included five mobile solar-powered water pump carts, five crop cultivation greenhouses, automated water distribution systems, and various localized machinery such as a potato harvester, a rice husker, and a mobile solar-powered dryer. By providing these tools, SNRU is empowering local farmers to cultivate food more efficiently and sustainably, ensuring a stable and secure food source for their communities.

Sakon Rajabhat Builds Safe Veggie Network for Local Farmers



Sakon Nakhon Rajabhat University's Faculty of Agricultural Technology launched a 2024 project to upgrade safe vegetable production quality around Bueng Khan, aiming to boost farmer income through knowledge transfer. The initiative established a safe produce distribution network, providing guaranteed purchasing, quality checks, and guidance. This approach ensures farmers immediately adopt safe practices, creating high standards and stability across the community's food supply chain.



ACCESS TO FOOD SECURITY KNOWLEDGE



In February 2024, the Faculty of Agricultural Technology at Sakon Nakhon Rajabhat University (SNRU) conducted a hands-on training workshop titled "Animal Husbandry, Mushroom Cultivation, and Vegetable Farming for Creating Food Security in the Household" in Phon Sawan District. The project, led by Asst. Prof. Ratchanee Chanchitpreecha, successfully trained 59 community members and students. The two main goals were: 1) Transferring knowledge for integrated production systems to ensure food security within households, covering animal husbandry, aquaculture, and mushroom cultivation; and 2) Developing 21st-century skills by training participants, including students and community members, to use digital media (PowerPoint) to document and share their farming knowledge. This initiative effectively promoted the use of local resources and biodiversity for food production, simultaneously creating sustainable knowledge and strengthening community livelihoods.



ACCESS TO FOOD SECURITY KNOWLEDGE



SNRU Faculty of Agriculture Elevates Local OTOP Product Quality

SNRU's Faculty of Agricultural Technology led a 2024 project to upgrade and add value to local food-based OTOP products using academic technology. The project addressed issues of low quality and lack of standards by conducting five technical workshops covering fish processing, mango product development, and the standardization of safe rice production. This initiative successfully transferred specialized knowledge to entrepreneurs, ensuring better product quality, increased market value, and stronger community economic resilience. The project executed 5 distinct technical workshops which covered key areas like: value-adding fish products and business management; processing fish products to meet community standards (MPhCh); developing products and preservation technology for 'Mamuang Bao' (small mango); standardizing safe jasmine rice production; and developing processed products from brown rice.



SNRU Training Boosts Farmer Income and Food Security with Integrated Farming



Results: The project was highly successful, enabling participating farmers to diversify their careers into fish farming, mushroom cultivation, and product processing. The interventions resulted in an average increase in farmer income by 30.89% and a reduction in expenses by 63.89%, demonstrating a significant and sustainable improvement in their economic well-being.

Upgrading Fish Farming Standards with Innovation for Agricultural Product Certification and Community Income Elevation

Asst. Prof. Subthawee Supphakamol from SNRU's Faculty of Agricultural Technology during Fiscal Year 2024, this project aimed to standardize fish farming practices for the community enterprise group in Phang Khon District, Sakon Nakhon. The objective was to build consumer confidence, enhance the quality of the agricultural products, and elevate the local community's income through improved agribusiness channels.

The project involved 3 core activities:

1. Workshop on Using Feed Quality Measurement Tools (June 20-21, 2024): Training farmers to independently test and ensure the quality of aquaculture feed.
2. Workshop on Fish Farm Management and Documentation for Certification (June 21-23, 2024): Training farmers to manage their farms according to agricultural product standards and prepare for formal certification.
3. Follow-up and Evaluation (July 2, 2024): Assessing the project's impact on farmers' income and quality of life.

Outcome: Participating farmers successfully increased their knowledge of proper fish farm management, were able to upgrade their product standards for certification, and added value to their products. This resulted in a sustainable increase in community income and an improved quality of life.

Led by Asst. Prof. Dr. Tippaporn Thipsukon from SNRU's Faculty of Agricultural Technology, this project took place in Non Sila Sub-district, Kusumal District, Sakon Nakhon, during Fiscal Year 2024. The main goal was to improve the quality of life and create multiple income streams for the local community by transferring integrated farming knowledge.

The project conducted several key workshops:

1. Integrated Aquaculture and Orchid Cultivation (June 12-13, 2024), focusing on safe and standardized production.
2. Mushroom Cultivation and Sustainable Vegetable/Animal Feed Production (July 9-10, 2024).
3. Catfish Product Processing (July 25, 2024), including workshops on value-added processing and online marketing.



Unlocks Functional Food Potential in Local "Carissa carandas Linn."



Asst. Prof. Dr. Thanakorn Ratchapila from the Faculty of Agricultural Technology, SNRU, has dedicated this project to the research and development of Carissa carandas Linn. (commonly known as "Bengal Currants"), a highly nutritious local medicinal plant. The core objectives are to study and develop food processing techniques to utilize this local resource as a Functional Food, focusing on its high content of antioxidants such as Anthocyanin and Carotenoids. The project involves developing advanced processing methods like spray drying and encapsulation to ensure the active compounds are preserved and the resulting product (e.g., Carissa carandas powder) maintains stable quality and an extended shelf life without the use of chemical preservatives. Crucially, this project achieves more than just fulfilling conservation policies; it creates economic opportunities for local farmers and entrepreneurs by significantly adding value to the native berry. By transforming the traditional local crop into standardized, shelf-stable health food products, the project supports sustainable livelihoods and promotes the use of local biodiversity in the food industry.



Empowering Phu Phan Farmers with Sustainable Food System Skills



Lecturer Dr. Pattarapong Prachitchid from the Faculty of Agricultural Technology at SNRU, this project (Phase 2) focused on establishing sustainable food systems and creating stable careers for farmers in Ban Non Saran, using the locally available rattan crop as the core resource.

The project executed three key activities during 2024:

1. Development and Adjustment of the Solar Cell System (February 13-14, 2024): This intervention aimed to reduce farmers' operating costs and enhance sustainability in rattan production.
2. Value-Addition Workshop and Food Processing Training (March 20-21, 2024): This focused on transferring knowledge for processing rattan, optimizing product packaging, and utilizing online marketing channels.
3. Follow-up and Evaluation (June 27-29, 2024): Monitoring sales and overall project effectiveness.

Outcome: The project was successful in integrating clean energy (solar cells) with local production and food processing. Thirty participating farmers saw an average increase in income of 20% and achieved higher quality output, thereby creating stable livelihoods and sustainably adding value to their local agricultural resource.

UNIVERSITY ACCESS TO LOCAL FARMERS AND FOOD PRODUCERS



Academic Spotlight

Prototype factory for developing food products and innovations

Sakon Nakhon Province AgriTech and Innovation Center, established in 2020 with the Ministry of Agriculture and Cooperatives, aims to modernize local agriculture through advanced technology and product development. It supports farmers with innovative growth systems, high-quality product processing like kale powder and herbal extracts, and modern facilities. The center promotes sustainable agriculture and regional economic growth through training and partnerships, enhancing local farming practices and market readiness.

Sakon Nakhon Rajabhat University Innovation Pilot Plant serves as a shared model factory, offering direct access to industrial equipment for small-scale OTOP entrepreneurs and farmers. This crucial access facilitates the transition from home-based output to a scalable commercial standard. Beyond infrastructure, the center transfers essential knowledge through workshops, equipping producers with skills in food safety, quality control, packaging innovation, and meeting national standards (e.g., MPhCh/FDA). By integrating access to technology and academic expertise, the center significantly boosts the market competitiveness and long-term sustainability of the local agro-industry.

