Southeast Asia Center of Excellence in the Making

a #thaiRAIN Success Story

Panel agreed on initiating agrifood center of excellence

We need to talk about agrifood climate-smart innovations

Southeast Asian farmers are facing the concrete effects of climate change, such as unusual weather, rising heat, water shortages, increasing pest infestations, and devastating floods.

The region has invested in R&D and innovations for many years, but the results are unsatisfactory. Crop yield increases have stalled in many countries. Food costs have risen, and the agrifood industry remains a major source of global greenhouse gases.

Adding to the problem, most farmers are aging, and many young people are reluctant to work on farms, resulting in a slow transition from traditional methods to more sustainable and productive practices.

Given these challenges, USDA Thailand RAIN (#thaiRAIN) has realized the need to promote efficient R&D investment and implementation to promote climate-smart innovations (CSi) across the region. It considers the approach of centers of excellence, facilitating collaboration across related agencies and countries in the region. This approach is useful in driving innovations to address the climate change challenges in the region's agrifood system. These centers of excellence seek to promote collaboration between the public and private sectors, academic institutions and related agencies in sharing knowledge, market-driven best practices, and experiences to promote the market for these innovations.

In late April, Winrock International, Mekong Institute, Michigan State University, and Kasetsart University co-hosted a workshop titled "Exploring the Potential for Establishing a Sustainable Agrifood System Center of Excellence in Southeast Asia," which concluded that the region does indeed require a center of excellence approach to accelerate the adoption of sustainable practices and innovative solutions that can address the challenges posed by climate challenges in the agrifood system. It might be founded in each regional country or as an entity that operates across the region.

Fostering CSi Collaboration

Apart from improving productivity to counter stress caused by climate impacts, CSi must aim to reduce GHG

emissions at all stages in the agrifood system to slow global warming.

Prof. Duncan Boughton of the Department of Agricultural, Food, and Resource Economics at Michigan State University pointed out that stronger collaboration between farmers, agribusiness, and policymakers is vital to align markets and policies and reward the adoption of CSi. “Science-driven innovation has not kept up with multiple and interrelated challenges faced by the agrifood system,” Prof. Boughton said. “Scientists in the private and public sector have improved tools: genetic improvement methods, new digital applications, and the potential to accelerate innovation through AI, but additional gains can be achieved by aligning market incentives and public policies to reward climate-friendly innovations.”

Businesses are increasingly crucial in promoting CSi throughout the agrifood system value chain, from input manufacturing to farm production, value-added services, and post-consumer waste management.

The need for researchers to cooperate more closely with the public sector and businesses is why the concept of centers of excellence is important. These centers of excellence will be a key mechanism for facilitating collaborations among related agencies to explore innovation opportunities, test inventions, and build economic models to distribute CSi rapidly.

“…ADDITIONAL GAINS CAN BE ACHIEVED BY ALIGNING MARKET INCENTIVES AND PUBLIC POLICIES TO REWARD CLIMATE-FRIENDLY INNOVATIONS.”

-PROF. DUNCAN BOUGHTON-
MICHIGAN STATE UNIVERSITY

Closing the Region’s Knowledge Gap

Additionally, Assoc. Prof. Witsanu Attavanich of Kasetsart University, thaiRAIN’s team lead of CSi evidence panel, who was recently appointed a member of Thailand’s National Economic and Social Development Council, said much research has been done in the region on climate change and the agrifood sector, but it is scattered among different agencies, research centers, and universities.

The development of centers of excellence will help resolve Southeast Asia’s gap in knowledge management for handling climate impacts and promote the scale-up of these innovations and put them to practical use, bringing them from the research space into the market space.

Moreover, centers of excellence will serve as a platform for coordination with organizations at the international level, streamlining the work process and promoting the exchange of ideas and best practices in the region.

“These centers of excellence will help us identify existing research and what’s missing. We do not need to start from scratch. If there’s existing research, we can validate and expand it. This will help manage all research methodically across different agrifood supply chains and among countries in the region.” Assoc. Prof. Witsanu said.

“The workshop has agreed that there is an evident need for such centers of excellence in Southeast Asia to promote R&D and innovations while facilitating farmer access to the market. We believe that these centers of excellence should be practical in meeting the needs of its users,” he said.

The region's centers of excellence can either operate alongside USDA’s planned International Climate Hub, contributing to each other’s operations and sharing knowledge, or operate under the USDA’s International Climate Hub.

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-ASSOC. PROF. WITSANU ATTAVANICH-
RAIN’S LEAD OF CSI EVIDENCE PANEL

FAST FACTS

RAIN IS FUNDED BY THE U.S. DEPARTMENT OF AGRICULTURE FOOD FOR PROGRESS PROGRAM, WITH PERIOD OF PERFORMANCE FROM 2022 – 2027.

EXPECTED RESULTS OVER LIFE OF PROJECT INCLUDE:

- **30,000 FARMERS** APPLYING IMPROVED PRACTICES
- **45 FIRMS** PARTICIPATING IN PUBLIC-PRIVATE PARTNERSHIPS
- **30 CLIMATE-SMART INNOVATION** IDENTIFIED FOR SCALEUP