Cambodia: Success Stories

First multi-stakeholder Swine Day in Cambodia educates about disease, opportunity



Opening the first Cambodia Swine Day is H.E. Sen Sovann, Director General of Cambodia's General Directorate of Animal Health and Production. (credit: S. Hendricksz)

In April 2019, the Cambodian government confirmed the presence of African Swine Fever, which is extremely fatal to pigs and has spread into nine east Asian countries since 2018. The disease can devastate the holdings of pig farmers, but humans cannot be infected.

How should pig farmers in Cambodia prepare themselves for this threat and other challenges? A major step forward in educating smallholder Cambodian pig farmers and other stakeholders of the pork value chain took place on November 30, 2018. The first Cambodian "Swine Day" event welcomed 139 attendees and armed them with knowledge about diseases, biosecurity, and the nutrition of pigs.

Because of Swine Day's success, Cambodia's Ministry of Agriculture plans to integrate it into the country's yearly Livestock Day. Swine Day originated with a research project supported by the Feed the Future Innovation Lab for Livestock Systems and led by Dr. Michael Tokach from Kansas State University

(KSU). Swine Days have been an annual tradition at KSU since 1968. The event in Cambodia was co-organized by KSU and Cambodia's Royal University of Agriculture and co-supported by two Feed the Future Innovation Labs devoted to livestock and to horticulture.

Featuring a full day of presentations and demonstrations, Cambodia's inaugural Swine Day was held in Siem Reap, a city in the country's northwest and a gateway to the famed ruins of Angkor Wat.

Concept to Execution

The idea for Swine Day emerged after initial project surveys in 2017 found that stakeholders were eager for disease transmission education. A concept note in 2018 targeted two objectives: to share recent findings from the project's research and experiments, and to convene diverse stakeholders to exchange current knowledge about pig nutrition and diseases.



Students shared posters of their research and competed for prizes at Swine Day. (credit: S. Hendrickx

Swine Day featured 14 presentations, in a mixture of English and Khmer languages, by more than 20 local and international experts in swine nutrition, production, diseases, and marketing. In addition, 15 Cambodian students competed with scientific posters and won prizes from Cambodia's Centre of Excellence on Sustainable Agricultural Intensification and Nutrition. Of the 179 attendees, 59 were female and 120 were male, and 57 farmers represented the largest subgroup

Did It Work?

After the event, all participants agreed that the training increased their personal or organization's capacity, according to the event evaluation. Also, 95 percent felt that it increased their understanding of swine nutrition and feeding practices, and 97 percent gained knowledge about food safety and the status of the swine industry in Cambodia. In other words, it worked.

While Swine Day was a singular event, the project has held many other extension activities. In early 2019 alone, 198 people (74 Village Animal Health Workers, 71 farmers, and 53 students) attended trainings on biosecurity, nutrition, and swine diseases.

The Project's Scope

The project that organized 2018's Swine Day, Improved pig health and nutrition: the major drivers of profitability and sustainability for smallholder farmers in Cambodia, conducted research from July 2017 to May 2019. Currently, it is producing fact sheets in Khmer and at least five journal articles about feed ingredients, an experiment on supplement replacement (demonstrating \$10/pig profit within 42 days), biosecurity, animal health products, and experiential learning. It supported 27 Cambodian students pursuing degrees, and overall it trained 568 people directly.



This farmer participated in both surveys and trainings with the project on improved pig health and nutrition. (credit: Facebook page of Cambodia Swine Day)

Taskforce to continue a project's legacy



A training session in July 2020 gathered pork retailers from the Krolanh Market in Cambodia.

Action movies often dramatize how a team comes together to stand for justice, but this story line may seem strange in the world of agricultural research. Even so, a research team in Cambodia pursued a unique and ambitious approach to achieve its vision of safe food both during the project and beyond by establishing the Food Safety Taskforce.

"It sounds a little bit military, but we wanted to do something fast and efficient," said Hung Nguyen-Viet, a researcher from the International Livestock Research Institute (ILRI) who helped implement the project for his colleague and the project's principal investigator, Delia Grace.

The taskforce was formed near the beginning of the project Safe Food, Fair Food for Cambodia, which was implemented from 2017 to 2021, as a means to engage key partners in the country's challenging domain of food safety. It was a strategic choice based on the Cambodian context and the project's intention to use its findings to support new policies.

Developing the Food Safety Sector

In 2010, Cambodia established regulations and responsibilities for food safety across six agencies, and it created a national technical food safety working group. Representatives from this group and the six agencies were invited to join the new taskforce along with others from universities, research centers, and international organizations such as FAO. In December 2017 and January 2018, exploratory meetings of the taskforce reviewed safety problems relevant to the project and introduced quantitative risk assessment of foodborne pathogens using the project's data. At the end of October 2019, 25 experts gathered to solidify the taskforce and its goals.

By the end of the project in June 2021, the Food Safety Taskforce had earned pledges from ILRI to support scaling up activities through the National Animal Health and Production Research Institute (NAHPRI). The project characterized the taskforce as a bridge to translate its food safety research evidence into policy and practices.

Life and Death Issues

Although the process of forming a committee may not pique the cinematic interest of Hollywood, its subject matter involves life and death issues with the twist of misinformation.

"We have a saying that what you worry about, and what makes you sick and kills you, are not the same," said Delia Grace at the project's closing workshop, held online June 21 to 22, 2021. She explained that Cambodian women express high concern about chemicals polluting their food, but research shows that illness from Salmonella contamination is a greater, more immediate risk.

To coordinate how to present such findings in an effective manner, the taskforce met on February 18, 2021 to discuss and disseminate key project findings. It continued integration efforts with the national technical food safety working group, and it planned for scaling up of the project's policy recommendations and light-touch interventions in traditional markets.

Overall, this project was highly participatory and iterative. It evolved based on stakeholder input, and it fostered South-to-South support through relationships with Vietnam. Even with the arrival of COVID-19, it maintained momentum, creating a food safety training video and handbook for wet market retailers and publishing four journal articles in 2021.

The Safe Food, Fair Food for Cambodia project was implemented by ILRI in partnership with NAHPRI, the Livestock Development for Community Livelihood Organization, the Department of Communicable Disease Control in the Cambodian Ministry of Health, and the National Institute of Public Health.