



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Reducing Foodborne Pathogen Contamination of Vegetables in Cambodia: Innovative Research, Targeted Interventions, and Impactful, Cambodian-led Engagement

In recent years, Cambodia's commitment to reducing malnutrition has led to the increased promotion of high value, nutritionally rich foods—particularly vegetables — to consumers. However, the consumption of raw vegetables carries a risk of foodborne disease unless produce is consistently protected from cross-contamination with pathogens during production, processing, transport, sale, and meal preparation.

The overarching goal of our project is to safeguard the nutritional gains of a healthy diet for Cambodian children, households, and communities by strengthening food safety across the vegetable value chain. With funding from the Feed the Future Innovation Lab for Food Safety and in collaboration with Cambodian colleagues, we are bridging existing food safety gaps and solidifying shared food safety agendas across universities and the public and private sectors. Together we are testing and implementing data-driven strategies to measurably reduce the incidence of foodborne pathogen contamination of vegetables consumed in Cambodia.

PROJECT OBJECTIVES

1. Identification of critical control points for foodborne illness through longitudinal studies to map and characterize the prominent pathogens associated with vegetable-borne disease and pathogen contamination points, persistence, and transmission within the vegetable value chain.
2. Evaluation of new and existing interventions to reduce microbial contamination at critical control points in the vegetable value chain.
3. Assessment of food workers' food safety awareness and their willingness to adopt food safety interventions at critical control points to develop strategies for incentivizing the adoption of food safety practices.
4. Creation and delivery of workshops and training programs to accelerate the adoption of food safety interventions by farmers, produce collectors, market vendors, and market management groups and promote greater awareness of food safety among consumers.

The Food Safety Innovation Lab (FSIL) leverages global food safety expertise in locally led projects that address the root causes of foodborne illness. By identifying food safety knowledge gaps and developing data-driven food safety practices and policies, FSIL projects create systemic change that strengthens household and community nutrition, food security, and economic opportunity.



PROJECT OUTCOMES

- ▶ Identification of adoptable and practical food safety interventions, informed by food safety behavior research, that effectively reduce bacterial contamination of vegetables at critical control points.
- ▶ Uptake and adoption of evidence-based food safety interventions by workers throughout the vegetable supply chain, from farms to fresh air markets.
- ▶ Enhanced food safety knowledge and awareness among all stakeholder groups, including consumers, that creates an enabling environment for the production of safe, healthy, and nutritious foods.
- ▶ The empowerment of women and youth working in vegetable value chains to serve as leaders in food safety and entrepreneurship.
- ▶ A measurable reduction in the food safety risks associated with vegetable consumption in Cambodia.

Dr. Jessie Vipham (PI)
Kansas State University
jessiev@ksu.edu

This project is funded by USAID and the Food Safety Innovation Lab as part of Feed the Future, the U.S. Government's global hunger and food security initiative.

For more information about Food Safety Innovation Lab projects, visit: purdue.ag/foodsafetyIL



USAID
FROM THE AMERICAN PEOPLE

KANSAS STATE
UNIVERSITY

P PURDUE
UNIVERSITY


Institut Pasteur
du Cambodge



PennState



World Vegetable Center