

International Livestock Research Institute

Safe Food, Fair Food for Cambodia Project

Report

Project final workshop

21-22 June 2021















© 2019 International Livestock Research Institute (ILRI)

ILRI thanks all donors and organizations which globally support its work through their contributions to the CGIAR Trust Fund.

This publication is copyrighted by the International Livestock Research Institute (ILRI). It is licensed for use under the Creative Commons Attribution 4.0 International Licence. To view this licence, visit https://creativecommons.org/licenses/by/4.0. Unless otherwise noted, you are free to share (copy and redistribute the material in any medium or format), adapt (remix, transform, and build upon the material) for any purpose, even commercially, under the following condition:

ATTRIBUTION. The work must be attributed, but not in any way that suggests endorsement by ILRI or the author(s).

NOTICE:

For any reuse or distribution, the license terms of this work must be made clear to others. Any of the above conditions can be waived if permission is obtained from the copyright holder. Nothing in this license impairs or restricts the author's moral rights.

Fair dealing and other rights are in no way affected by the above.

The parts used must not misrepresent the meaning of the publication. ILRI would appreciate being sent a copy of any materials in which text, photos etc. have been used.

Citation

ILRI (International Livestock Research Institute). 2021. Safe Food, Fair Food for Cambodia final workshop. Workshop report. Nairobi, Kenya: ILRI.

Patron: Professor Peter C Doherty AC, FAA, FRS

Animal scientist, Nobel Prize Laureate for Physiology or Medicine—1996

Box 30709, Nairobi 00100 Kenya Phone +254 20 422 3000 Fax +254 20 422 3001 Email Ilri-kenya@cgian.org

ilri.org better lives through livestock

Phone +251 11 617 2000 Fax +251 11 667 6923 Email ilri-ethiopia@cgiar.org

Box 5689, Addis Ababa, Ethiopia

ILRI is a CGIAR research centre

ILRI has offices in East Africa . South Asia . Southeast and East Asia . Southern Africa . West Africa

Table of Contents

Abbreviations and acronyms	3
Acknowledgements	
Introduction	
Workshop proceedings	
Workshop program	7
Links to presentations	8
List of participants	. 10

Abbreviations and acronyms

ASF Animal source foods

CDC Department of Communicable Disease Control, Cambodia FAO Food and Agriculture Organization of the United Nations

GDAHP General Directorate of Animal Health and Production, Cambodia

ILRI International Livestock Research Institute

LDC Livestock Development for Community Livelihood

NAHPRI National Animal Health and Production Research Institute, Cambodia

SFFF Safe Food, Fair Food

SOP Standard operating procedure

USAID United States Agency for International Development

WHO World Health Organization

Acknowledgements

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID) and its Feed the Future Innovation Lab for Livestock Systems managed by the University of Florida and the International Livestock Research Institute (ILRI). The contents do not necessarily reflect the views of USAID or the United States Government.

Introduction

Animal source foods (AFS) are an important part of the cuisine with pork, fish, and poultry products widely consumed in Cambodia. The majority of livestock products are produced by smallholders, many of them women, and sold in traditional, wet markets where women also predominate as retailers. In recent years, Cambodia has seen growing food safety concerns.

The overall aim of the Safe Food, Fair Food (SFFF) for Cambodia project is to reduce the burden of foodborne disease in informal, emerging formal, and niche markets and targeting small and medium scale producers. The project has five objectives with associated activities, outputs, and outcomes. To reach this objective, it is necessary to build capacity to better understand what food safety risks are, how to manage food safety and how to communicate it effectively among stakeholders including the government, private sector, academia, donors, and the media.

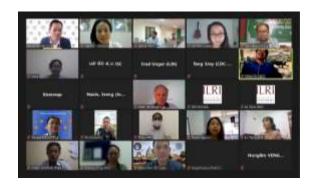
Workshop proceedings

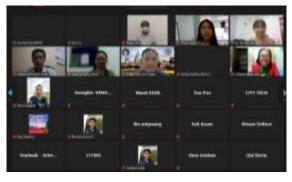
The workshop took place 21-22 June 2021 in the office of National Animal Health and Production Research Institute (NAHPRI) in Phnom Penh, Cambodia (for partners based in Phnom Penh), and partners elsewhere joined virtually on Zoom platform. The event was co-hosted by NAHPRI in collaboration with the International Livestock Research Institute (ILRI).

The objectives of the meeting were:

- To share key findings and recommendations from the SFFF Cambodia project,
- To discuss the policy implication of the project and project intervention scaling up opportunities,
- And, to discuss with relevant stakeholders the food safety challenges and how to address them

The meeting brought together about 70 experts who are Cambodia's national institutes and central and provincial governments, civil society, academia, NAHPRI, Livestock Development for Community Livelihood (LDC) and ILRI, participated in the meeting.





Day 1 started with an opening remark by Gbola Adesogan, director of the Feed the Future Innovation Lab for Livestock Systems (LSIL) who called on the country's private sector and civil society organizations to partner the government in scaling up the productive work achieved in this pilot project across Cambodia. He added that his lab will be looking for ways to spread adoption of this project's interventions in other countries across the world.

Following was the opening by Hull Davun, deputy director general of Cambodia's General Directorate of Animal Health and Production (GDAHP). He reminded the participants that food safety and food security are key priorities of the Cambodian government, particularly in light of the need for the country to achieve the Sustainable Development Goals (SDGs). Foodborne diseases are not only

a public health problem but also a barrier to smallholders who wish to sell products in high-value domestic and export markets. He noted that though six governmental ministries are involved in managing food safety and food quality—Agriculture, Forestry and Fishery; Commerce; Industry and Handicrafts; Health; Tourism; and Economy and Finance—their overlapping mandates constrain their ability to work in harmony and to implement a food safety and quality control system in the country.

The opening session was followed up by a talk by Arie Havelaar, University of Florida sharing risk ranking experience from the TARTARE project in Ethiopia, and the reporting session by the SFFF Cambodia project team with nine presentations updating the project key achievements from different components.

Sothyra Tum, director, NAHPRI wrapped up the meeting then.

Day 2 focused much on policy advocacy and how to scale up the project interventions after the project is over.

Rob Readnour, Mountain Group, a private partner of SFFF Cambodia gave a talk on innovation technology for food safety.

Sothyra Tum gave a presentation on the intervention package at the traditional market.

Delia Randolph presented on scaling opportunities. This evidence-based study was successfully implemented with all project objectives being fully achieved. There were also additional outputs on Japanese encephalitis and system effect modelling. Regulation and consumer demand will be the main drivers in scaling up the intervention, with the latter more so.

Hung Nguyen-Viet talked about taskforce – research to policy and practice. The multi-sector task force developed through stakeholder consultation will help to strengthen capacity in risk-based food safety assessment. The task force is expected to continue its work with support from ILRI to scale up beyond the six provinces involved in the project.

A plenary session was dedicated to discussing the question 'What we know and what is missing?' about food safety in Cambodia. Here are some reflections from the provinces

- In Siem Reap, the practice of cleaning equipment and disinfecting cutting boards was adopted. There were some challenges in other provinces with adoption of recommended plastic covers for chopping boards as the meat sellers prefer to use marble and stainless-steel boards.
- Training provided by the project team did not always lead to improved food safety practices. Some consumers, for example, prefer buy their meat from the roadside rather than from market stalls where vendors handle meat more hygienically.
- The project's partners argued for the need to engage more local stakeholders to scale up the project's interventions.
- The additional stakeholders include market managers, who can monitor vendor compliance with good food safety practices, as well as officials of relevant ministries, who can help to improve the infrastructure of these traditional markets.

Following the meeting, the project team plan to scale up their interventions among local markets by disseminating a video and handbook showcasing 'Five key ways to retail safer pork in Cambodia's traditional markets'.

In his closing remarks, Dieter Schillinger, deputy director general for biosciences at ILRI, said he expected that the meeting would help serve to reinforce food safety recommendations among Cambodia's several ministries and agencies concerned with ensuring food safety.

Workshop program

Time	Activities	Person in charge
	t achievement reporting	
13:30	 Registration for in person participants Getting online in zoom and greetings 	NAHPRI and LDCChi Nguyen, Hanh Le, ILRI
14:00-14:20	Opening remarks • LSIL • ILRI • GDAHP	 Tum Sothyra, NAHPRI Gbola Adesogan, Director, LSIL Dieter Schillinger, Deputy Director General (& Fred Unger, Regional representative, ILRI Hull Davun, Deputy Director General, GDAHP
14:20-14:30	Objectives of the workshop Introduction of participants	Sothyra Tum, NAHPRI
Session 1: Re	porting key results and recommendations from	the SFFF Cambodia project
14:30-14:45	Invited talk 1: Risk ranking to support priority setting of food safety policy at the national level - experiences from the TARTARE project in Ethiopia	Arie Havelaar, University of Florida
14:45-15:45	Project achievement reporting	Hung Nguyen, ILRI
	Overview of project (5mn)	Hung Nguyen, ILRI
	Multi-pathogen survey in markets (15 mn)	Rortana Chea, NAHPRI
	Household survey (10 mn)	Chhay Ty, LDC
	 Quantitative microbial risk assessment of salmonellosis (15 mins) 	Sinh Dang, ILRI
	Cost of illness (10 mins)	Teng Srey, CDC
	Short Q&A (5 mns)	All
15:45-16:00	Tea break	_
16:00-16:45	Nutrition study (10 mins)	Candice Duong, Emory University
	Parasite study (10 mins)	Fred Unger, ILRI
	M&E and Theory of Change of SFFF (10 mins)	Fred Unger, ILRI
	Cross-cutting activities: Gender, capacity building, communication (10 mins) Q&A (5mns)	Hung Nguyen, ILRI
16:45-17:15	Discussion and wrap up	Tum Sothyra, NAHPRI
-		,
	tion, Policy and Scaling	
13:45-14:00	 Registration for in-person participants Getting online in zoom and greetings 	NAHPRI and LDCChi Nguyen, Hanh Le, ILRI
14:00-14:05	Recap day 1	Johanna Lindahl, ILRI
14:05-14:20	Invited talk 2: Innovation technology for food safety	Rob Readnour, Mountain Group Partners
14:20-14:50	Innovation in food safety: Intervention RCT at market and Communication (30mns) Q&A	Tum Sothyra, NAHPRI
14:50-15:00	Sharing by partner institutions	FAO/WHO representatives

15:00-16:00	General discussion on food safety innovation and scaling up Project reflection Taskforce and scaling-up opportunities Structured discussion: What we know and what is missing?	 Tum Sothyra, NAHPRI Delia Grace, ILRI/University of Greenwich Hung Nguyen, ILRI Tum Sothyra, NAHPRI 		
16:00-16:10	Tea break			
16:10-16:35	Food safety innovation and scaling up • What we know and what is missing?	Tum Sothyra, NAHPRI and Hung Nguyen, ILRI		
16:35-16:40	Launch of project products Policy brief Video, guideline, handbook, etc. Papers	Hung Nguyen, ILRI		
16:40-16:50	Wrap-up and closing	Dieter Schillinger, Deputy Director General, ILRI Hull Davun, Deputy Director General, GDAHP		

Links to presentations

- Rob Readnour. 2021. Emerging technologies for food safety: a venture funding perspective. Presented at the Safe food, fair food for Cambodia project closing workshop on 21-22 June 2021. Tennessee, USA: Mountain Group Partners. https://youtu.be/rhqQ0ShnZlc
- Hung Nguyen-Viet, Sothyra, T. Chhay Ty, Young, M. and Grace, D. 2021. Safe Food, Fair Food for Cambodia project. Presented at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21-22 June 2021. Nairobi, Kenya: ILRI. https://hdl.handle.net/10568/114478
- Duong, M.C., Brown, S.M., Hung Nguyen-Viet, Grace, D., Ty, C., Samkol, P., Sokchea, H., Pov, S. and Young, M.F. 2021. *Nutrition and food safety perception*. Presented at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21-22 June 2021. Atlanta, USA: Emory University. https://hdl.handle.net/10568/114476
- Srey, T. 2021. Cost of hospitalization for foodborne diseases. Presented at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21- 22 June 2021. Phnom Penh, Cambodia: Ministry of Health. https://hdl.handle.net/10568/114475
- Ty, C. 2021. Pork and animal source food consumption and food safety risk perception in Phnom Penh, Cambodia. Presented at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21- 22 June 2021. Phnompenh, Cambodia: Livestock Development for Community Livelihood. https://hdl.handle.net/10568/114474
- Chea, R. 2021. Prevalence of Salmonella spp. and Staphylococcus aureus in chicken and pork meat from Cambodian markets. Presented at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21- 22 June 2021. Cambodia: National of Animal Health and Production Research Institute. https://hdl.handle.net/10568/114473
- Unger, F. 2021. Low prevalence of Cysticercosis and Trichinella infection in pigs in rural Cambodia. Presented at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21- 22 June 2021. Nairobi, Kenya: ILRI. https://hdl.handle.net/10568/114508
- Hung Nguyen-Viet, Tum, S., Ty, C., Young, M. and Grace, D. 2021. Safe Food, Fair Food for Cambodia: Scaling opportunities. Presentation at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21-22 June 2021. Nairobi, Kenya: ILRI. https://hdl.handle.net/10568/114572
- Lam, S., Hung Nguyen-Viet and Unger, F. 2021. Using a theory of change to support evaluation planning for a food safety intervention in Cambodia. Presentation at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21-22 June 2021. Nairobi, Kenya: ILRI. https://hdl.handle.net/10568/114573
- Hung Nguyen-Viet, Tum, S., Ty, C., Young, M. and Grace, D. 2021. Safe Food, Fair Food for Cambodia Cross-cutting activities: Gender, capacity building and task force. Presentation at

- the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21-22 June 2021. Nairobi, Kenya: ILRI. https://hdl.handle.net/10568/114574
 Hung Nguyen-Viet, Tum, S., Ty, C., Young, M. and Grace, D. 2021. Safe Food, Fair Food for
- Hung Nguyen-Viet, Tum, S., Ty, C., Young, M. and Grace, D. 2021. Safe Food, Fair Food for Cambodia task force: Research to policy and practice. Presentation at the Safe Food, Fair Food for Cambodia project final workshop, Phnom Penh, Cambodia, 21-22 June 2021. Nairobi, Kenya: ILRI. https://hdl.handle.net/10568/114575

List of participants

No.	Name	Designation	Organization	Email
1.	Arie Hendrik Havelaar	Professor, Department of Animal Sciences/IFAS, Emerging Pathogens Institute	University of Florida	ariehavelaar@ufl.edu
2.	Candice Duong	PhD student	Emory University	minh.cam.duong@emory.ed u
3.	Holl Davun	Deputy Director General	GDAHP	
4.	Chea Sovannara	Vice chief International Collaboration Office	GDAHP	cheasovannarayra@gmail.co m
5.	Mey Bunthim	Vice chief of office	GDAHP	bunthim.mey2012@gmail.co m
6.	Chea Morany	Deputy Director General	GDAHP	hmorany@gmail.com
7.	Tum Sothyra	Director	NAHPRI	sothyratum@gmail.com
8.	Sok Koam		NAHPRI	
9.	Rortana Chea		NAHPRI	rortanachea@gmail.com
10.	Loek Sochariya		NAHPRI	sochariya94@gmail.com
11.	Mong Vorleak		NAHPRI	
12.	Chhay Ty	Deputy director	LDC	chhayty@celagrid.org
13.	Vor Sina	Researcher	LDC	
14.	Pok Samkol	Deputy Director	Department of Science, Technology & Innovation Promotion & Development (D/PRO), National Institute of Science, Technology & Innovation (NISTI), Ministry of Industry, Science, Technology & Innovation	samkolpok@yahoo.com
15.	Teng Srey	Deputy Director	Department of Communicable Disease Control (CDC), Ministry of Health, Cambodia	tengsrey72@yahoo.com tengsrey72@gmail.com
16.	Seng Sokerya		FAO	sokerya.seng@fao.org
17.	Leang Supheap		National Institute of Public Health Cambodia (NIPH)	leangsupheap@yahoo.co m
18.	Venn Vutey	Vice Dean, Faculty of Veterinary Medicine	Royal University of Phnom Penh	vennvutey@rua.edu.kh

No.	Name	Designation	Organization	Email
19.	Chea Phalla	Officer	CAMCONTROL, Ministry of Commerce	cheaphala76@yahoo.com
20.	Chea Thary	Deputy Head of quality assurance laboratory	CAMCONTROL, Ministry of Commerce	thary_yan@ymail.com
21.	Chea Thira	Director	Regulatory Department (DR) of Institute of Standards of Cambodia (ISC), Ministry of Industry and Handicraft (MIH)	maothira@gmail.com
22.	Chea Mov	Chief of Inspection Office	Regulatory Department (DR) of Institute of Standards of Cambodia (ISC), Ministry of Industry and Handicraft (MIH)	sokeamov@gmail.com
23.	Chea Chanphalleap	Department technical extension and legislation	Chief of technical extension	
24.	Chea Chansophal	Director	Prekleap National Institute of Agriculture	phon.chansophal@yahoo. com
25.	Chea Chea	Vice Dean, Faculty of Veterinary Science	Royal University of Agriculture (RUA)	cheabunthon72@gmail.co m
26.	Chea Kang		Royal University of Agriculture (RUA)	kkroesna@rua.edu.kh
27.	Chea Kab	Food safety officer	WHO	kabv@who.int
28.	Chea Kuok	Director General	National Institute of Science, Technology and Innovation, Ministry of Industry, Science, Technology and Innovation, Cambodia	kuok.fidero@misti.gov.kh
29.	Chea Nhoung	Vice-Dean of Faculty of Agriculture and Food Processing	University of Battambang (UBB)	koemseang_vet17@yaho o.com
30.	Chea Laingshun	Lecturer and Researcher, Bio-Enginering Department	Royal University of Phnom Penh (RUPP)	shunhouy@gmail.com
31.	Chea Ly	Vice director	Animal Health and Production in Kampong Chnnang Province	kristina.osbjer@slu.se
32.	Chea Osbjer	Lecturer and Researcher, Bio-Enginering Department	Department of Clinical Sciences, Swedish University of Agriculture Sciences,	
33.	Chea Eliyan	PhD student	Department of Energy and Technology, SLU	chea.eliyan@slu.se
34.	Chea Seyha	Vice dean	Faculty of Agro-industry, Royal University of Agriculture (RUA)	dseyha@gmail.com
35.	Chea Kong		Royal University of Agriculture (RUA)	
36.	Chea Sreng	Head	Laboratory of Environment and Food Safety, Institut Pasteur du Cambodge	snavin@pasteur-kh.org
37.	Chea Sokchea		LDC	

No.	Name	Designation	Organization	Email
38.	Chea Sokhim		Kampong Cham Institute of Agriculture	
39.	Chea Touch		Banteay Meanchey	
40.	Chea Setha		Battambong	
41.	Chea Hunlay		Battambong	
42.	Chea Chamroeun		Battambong	
43.	Chea Sophea		Battambong	
44.	Chea Sokkeng		Kampong Cham	
45.	Chea Sophal		Kampong Cham	
46.	Chea Sam Art		Kampong Chhnang	
47.	Chea Sopharith		Kampong Chhnang	
48.	Chea Vichetmony		Kampong Speur	
49.	Chea Reaksmey		Kampong Speur	
50.	Chea Mengchhang		Kampong Thom	
51.	Chea Ratha		Kampong Thom	
52.	Chea Santhapheap		Kampot	
53.	Chea Khun		Kampot	
54.	Chea Sokhen		Siem Reap	
55.	Chea Vech		Siem Reap	
56.	Chea Ly		Takeo	
57.	Chea Barom		Takeo	
58.	Dieter Schillinger	Deputy Director General	ILRI	d.schillinger@cgiar.org
59.	Delia Grace		ILRI	D.Randolph@cgiar.org
60.	Hung Nguyen	Leader, Animal Human Health Program	ILRI	h.nguyen@cgiar.org

No.	Name	Designation	Organization	Email
61.	Varijaksha Panicker Padmakumar	LSIL Regional Coordinator	ILRI	V.Padmakumar@cgiar.org
62.	Fred Unger	Regional representative for Southeast Asia	ILRI	f.unger@cgiar.org
63.	Johanna Lindahl	Scientist	ILRI	
64.	Sinh Dang	Postdoc	ILRI	
65.	Thanh Nguyen	Office manager	ILRI	t.l.nguyen@cgiar.org
66.	Chi Nguyen	Communications officer	ILRI	c.nguyen@cgiar.org
67.	Trang Le	Research officer	ILRI	
68.	Tezira Lore	Communication Specialist	ILRI	t.lore@cgiar.org
69.	Hanh Le	Finance & Administrative Associate	ILRI	h.le@cgiar.org