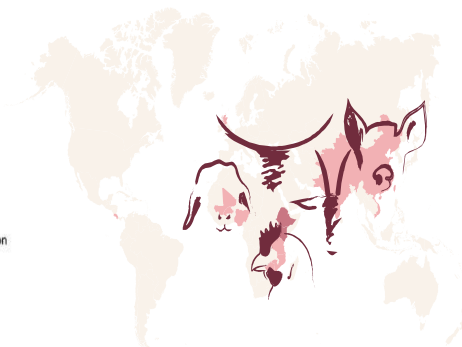




Better lives through livestock

Traditional food chains – gains, threats, and ways to de-risk them

3S food safety performance tool

Fred Unger¹, Pham Duc Phuc², Pham Van Hung³, Huyen Le Thi Thanh⁴, Hung Nguyen-Viet¹, Xuan Dang Sinh¹, Nguyen Nga³, Nguyen Thanh Luong², Hai Ngo Hoang Tuan², Delia Grace¹

¹International Livestock Research Institute in Vietnam and Kenya, ²Hanoi University of Public Health, ³Vietnam National University of Agriculture, ⁴Vietnam National Institute of Animal Science

13th meeting of Vietnam Food Safety Working Group
Hanoi, 17 December 2020



Food safety assessment considerations

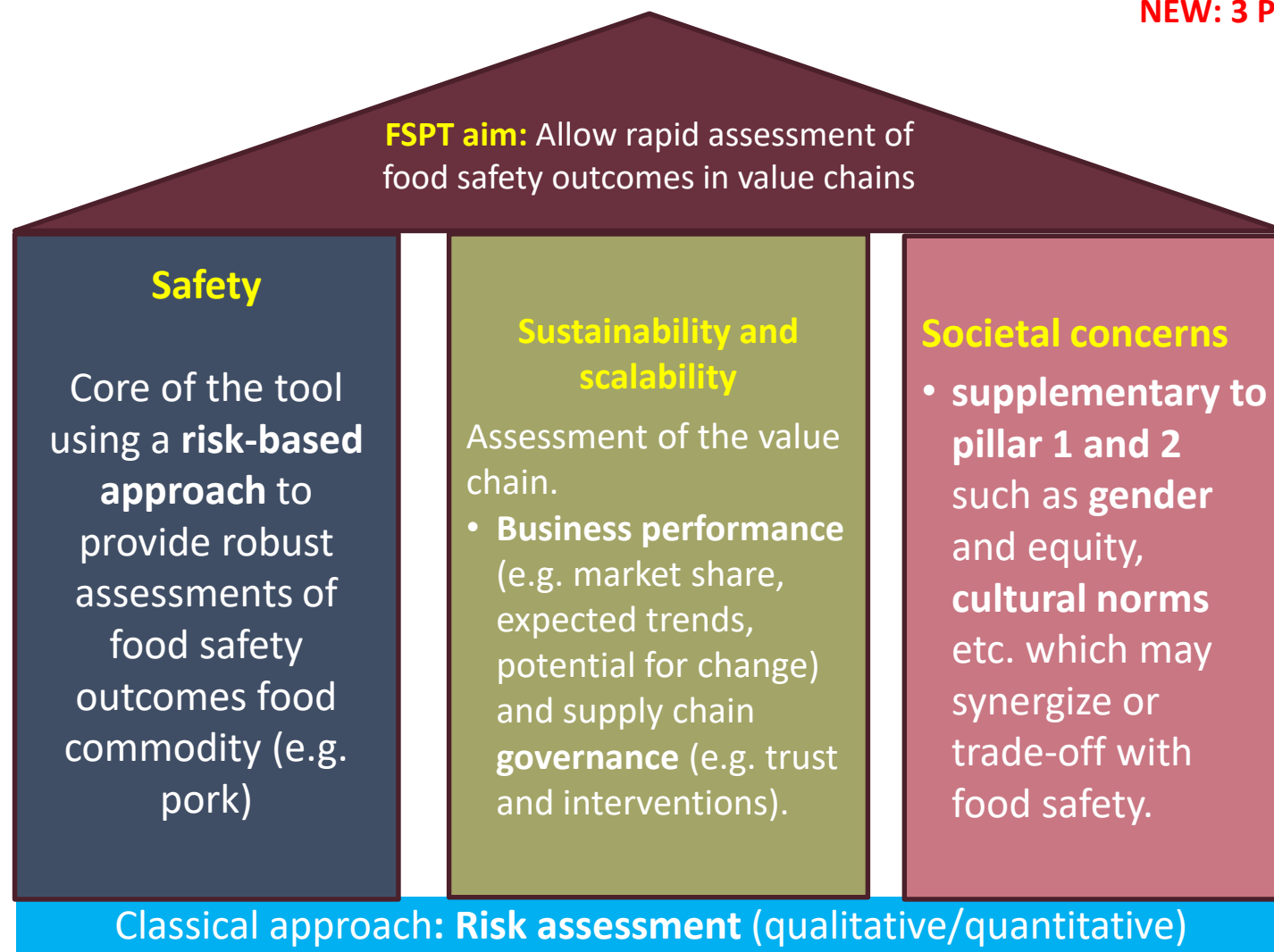
- **Food safety** has become an increasing **concern**
 - ✓ Concerns include contamination with **chemical and microbiological** hazards
 - ✓ **Modern** versus '**Informal**' retail
- **Little information on the actual risks** or how to manage them.

Recent decade EID and pandemics recalled questions like:

- ✓ Risk around traditional retail
- ✓ Shall we get rid of traditional retail
- ✓ How to reduce the risk

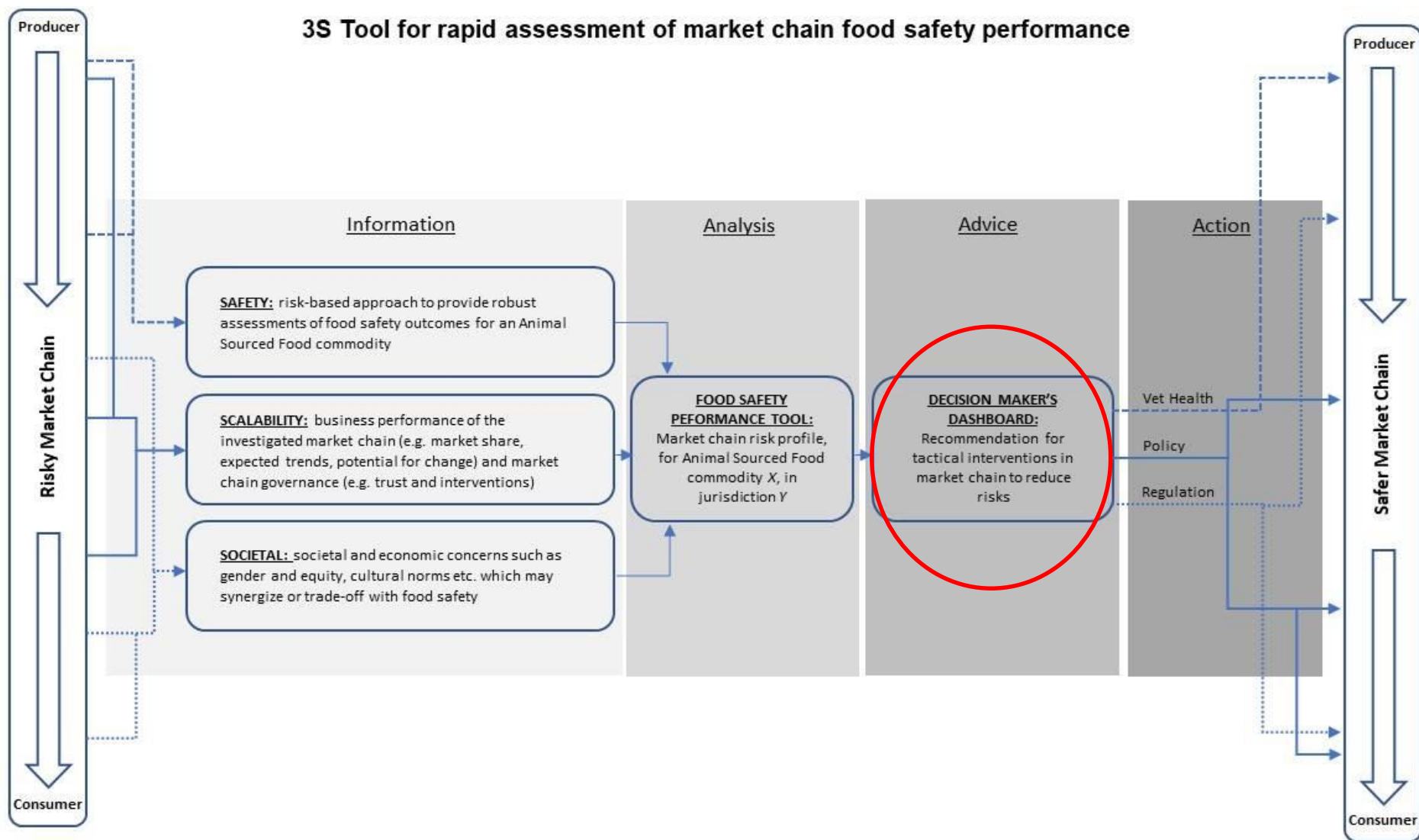
Food safety performance tool – aims and pillars

NEW: 3 Pillars!



Expanded ACIAR –SafePORK FSPT Framework

3S Tool for rapid assessment of market chain food safety performance



How the tool was used



Overview of typical pork value chains in Vietnam

Fred Unger, Nguyen Thi Thanh, Pham Van Hung, Le Thi Thanh Huyen, Nguyen Viet Hung, Dang Xuan Sinh, Nguyen Thi Duong Nga, Nguyen Thanh Luong, Nguyen Thi Thu Huyen, Tran Thi Bach Ngoc, Pham Duc Phuc, Della Grace and Nguyen Thi Quynh Chi

Step 1: Key commodity and value chains identified

- Review of available literature
- Key informant interviews

6 key pork value chains identified



Traditional/
wet market
(all sites)



Street food,
Hanoi



Canteens,
Hanoi



„Boutique“
food chains,
niche but
emerging,
Hanoi



Supermar-
et/
convenience
stores,
Hanoi



Native pigs,
Hoa Binh,
„safe by
nature“

How the tool was used

Step 2: Survey: Sep 2018 – May 2019

Tools applied:

Quantitative

biological sampling and observational checklist using a probabilistic sampling design

>700 samples collected across different pork value chains

Analysis: Salmonella & TBC (hygienic proxy)

Qualitative

focus group discussions, key informant interviews

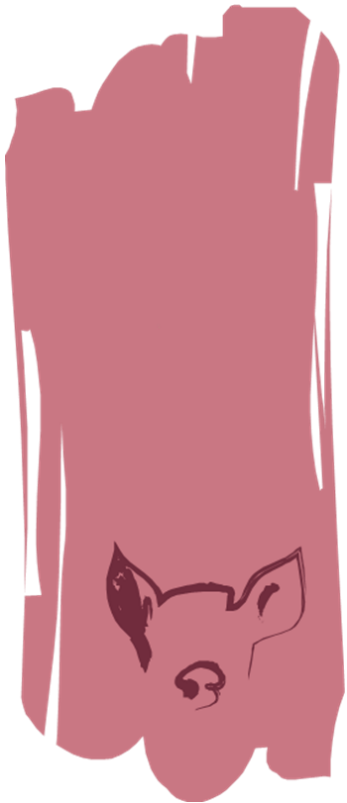
> 500 KII and 12 FGD (including consumers)

Business scale & trends

FS trust in actors

FS governance

KAP, intervention (perception)



Key results

Safety:

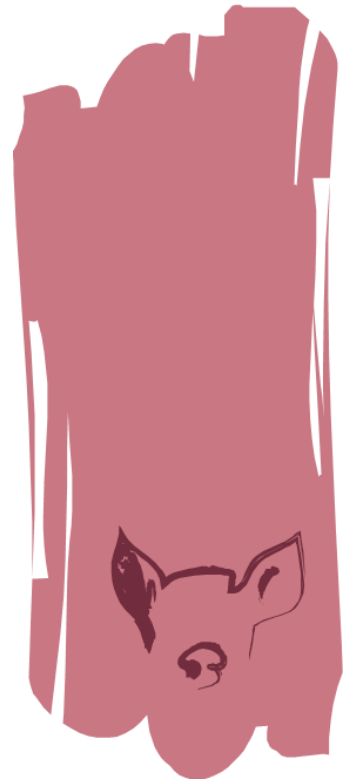
- **Poor food safety outcomes** across all retail types
- Consumers **incorrectly perceive** chemical **hazards** as more important than microbiological
- **Poor hygiene was blamed** as the main reason leading to foodborne disease, **but** this **perception wasn't** necessarily **translated into better practice**



Key results (cont.)

Scalability/sustainability:

- Overall **trust** levels on food safety **decrease from rural to urban** areas and **along the value chain** from producers (highest) to consumers (lowest).
- Trust was **lowest with social media** and **highest with TV** and local radio
- **Traditional** markets and slaughter **will continue to provide most pork** and should continue to be a focus



Key results (cont.)

Societal norms:

- **Women seem more cautious about chemical** residues in pork/food than men.
- **Women also worry more about foodborne disease** more frequently than men.
- **Man** more in **favour of purely technical interventions** than woman

Chosen value chains for intervention based on results from FS performance:

- ✓ Small-scale traditional pork chain
- ✓ Indigenous pork value chain



Gains from using the tool

Robust information on food safety performance

- aligned with data on:
 - KAP of various actors
 - Business scale to decide on scalability potential
 - Food safety trust related to VC actors and governance to optimize risk communication
 - Societal aspects to consider gender, culture and ethnics



Challenges using the tool

- **Time consuming** for survey and analysis
 - Combines qualitative & quantitative results
 - Across pillar **scoring system** is demanding
- **Compliance** of actors participating in surveys **varied**
 - Lower in canteens and modern retail
 - Replace QX by observations where possible
- **Costly** (6 VC, >700 biological samples, >VC actors)
- Need for further simplification
 - e.g. scaling options 1-10 to 1-5
 - certain KAP questions are too complicated



Expected cost, time to use and format:

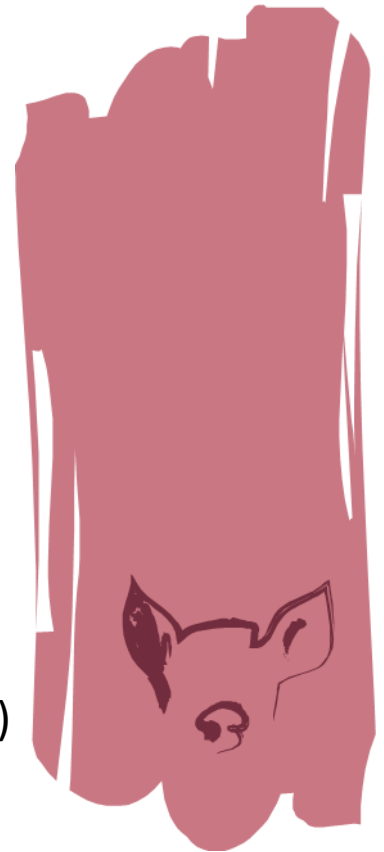
Costs: from the surveyed pork VC

- Per **100 actors** (retail) and at least one sample: approximately **6-6.5k**, probabilistic sampling recommended
- Chemical hazards not tested but previous work suggested 50 USD per tested hazard (pooled sampling)

Time frame: 1 month survey (including design) + analysis (1month)

Format of tool: Overall outline (form of booklet envisaged)

- Outline, questionnaires, sampling guidance
- Guidance for analysis



Other considerations:

Scalability of the tool for other food value chains

- Hazard can be replaced e.g., *Salmonella* by *Campylobacter*
- 3S content can be adjusted to other value chains or commodities. Though some careful adjustment needed

Combine with information from other sources:

- Country FS performance index
(but country context)



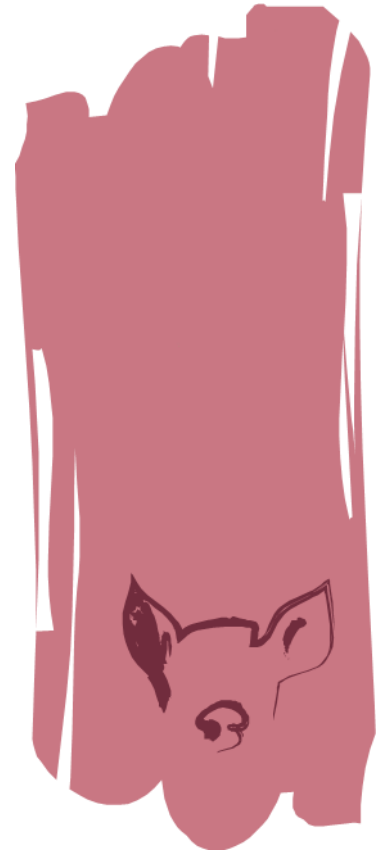
Key lessons and way forward:

Key lessons

- Robust Information on food safety outcomes complemented scalability potential and societal aspects
- Can be cost intensive and time demanding
- Risk of poor compliance of some VC actors as FS is a sensitive issue (replace KII by observation)

Way forward:

- Need for some refinement of tool by relevant stakeholders
- Across pillar scoring needs to be revisited
- Once finalized: tool to be used in OH FS projects in Africa
- Potential users to be further explored e.g., national/regional (OIE)



Menti-Question



Go to **menti.com**, and enter code

How would you score the usefulness of the tool for rapid assessing of food value chains (1-5)

Any suggestion to further simplify the tool for easier application?



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