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

3S food safety performance tool

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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

**FSPT aim:** Allow rapid assessment of food safety outcomes in value chains

**Safety**
Core of the tool using a *risk-based approach* to provide robust assessments of food safety outcomes food commodity (e.g. pork)

**Sustainability and scalability**
Assessment of the value chain.
- **Business performance** (e.g. market share, expected trends, potential for change) and supply chain **governance** (e.g. trust and interventions).

**Societal concerns**
- supplementary to pillar 1 and 2 such as gender and equity, cultural norms etc. which may synergize or trade-off with food safety.

Classical approach: **Risk assessment** (qualitative/quantitative)
Expanded ACIAR –SafePORK FSPT Framework

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

**Information**

- **SAFETY**: risk-based approach to provide robust assessments of food safety outcomes for an Animal Sourced Food commodity

- **SCALABILITY**: business performance of the investigated market chain (e.g., market share, expected trends, potential for change) and market chain governance (e.g., trust and interventions)

- **SOCIAL**: societal and economic concerns such as gender and equity, cultural norms etc. which may synergize or trade-off with food safety

**Analysis**

- **FOOD SAFETY PERFORMANCE TOOL**: Market chain risk profile, for Animal Sourced Food commodity X, in jurisdiction Y

**Advice**

- **DECISION MAKER’S DASHBOARD**: Recommendation for tactical interventions in market chain to reduce risks

**Action**

- Vet Health Policy Regulation
How the tool was used

**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
- Supermarket/convienient stores, Hanoi
- Native pigs, Hoa Binh, „safe by nature“

*Photo credit: Chi N/ILRI and BacTom 2018*
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 to 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 (1 month)

**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

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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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