

A vibrant street scene in a developing country. In the foreground, a woman in a blue patterned skirt carries several large plastic containers of food on a tray balanced on her head. Next to her, a person in a purple shirt and blue patterned skirt sits on a motorcycle, also carrying a large bowl and a bag of goods on a tray balanced on their head. The street is filled with other people, some carrying items on their heads, and colorful umbrellas. In the background, there are utility poles, a signpost, and buildings under a clear blue sky.

TRAFFIC

INTEGRATED RISK MANAGEMENT IN WILDLIFE TRADE CHAINS

USAID Wildlife TRAPS Project

James Compton, TRAFFIC

PREZODE Workshop, Hanoi, April 2023

USAID WILDLIFE TRAPS PROJECT

Reducing Zoonotic/EID Risks from wildlife trade

Wild animals used for meat, medicine and live specimens (pets, medical research)

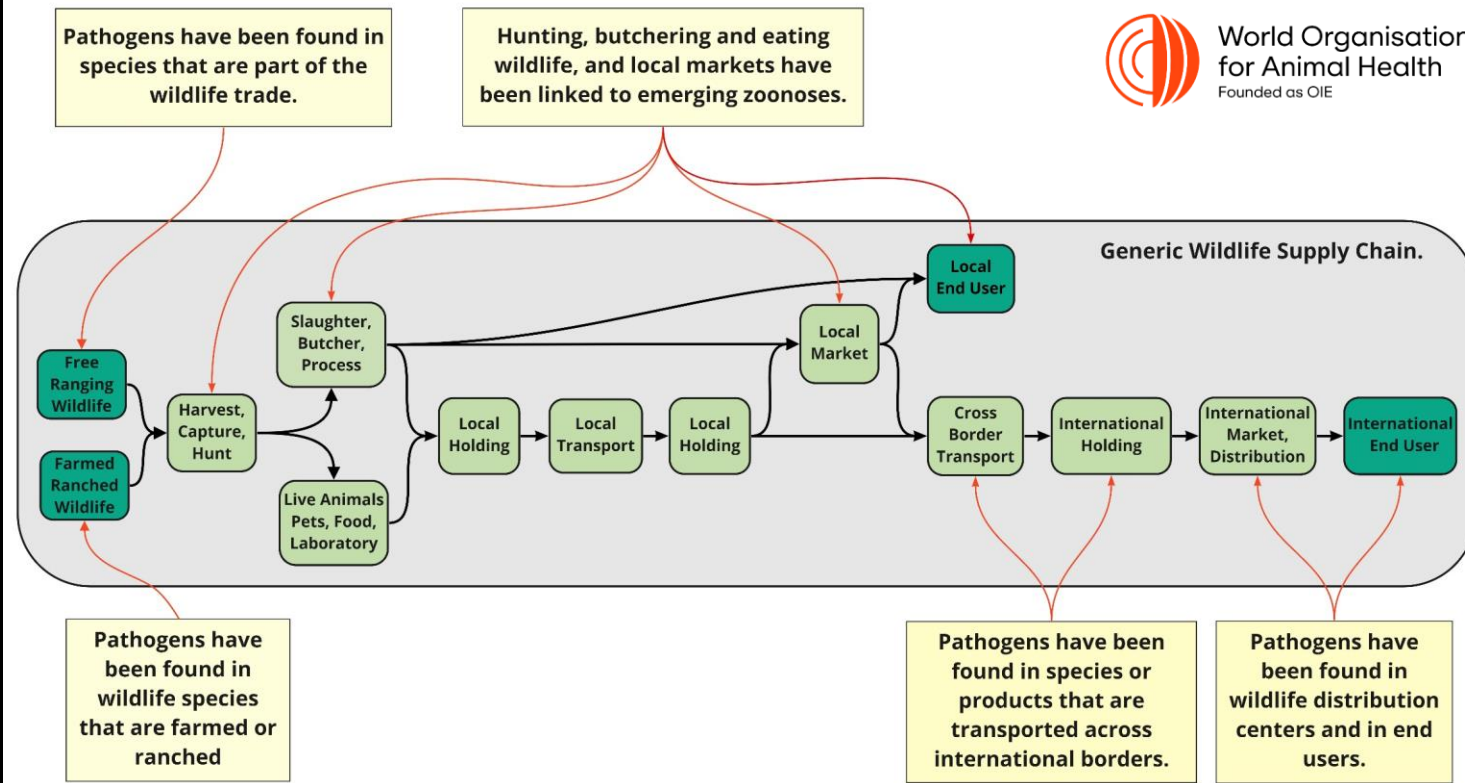
Supply chain lens to map risks:
what, where, who, and how to intervene



WILDLIFE TRADE CHAINS – HUMAN-ANIMAL INTERFACES

Guidelines for Reducing the Risk of Disease Spillover Events at Markets Selling Wildlife and along the Wildlife Supply Chain

Version 5.0 | 30 November 2022 | Draft Final for WOA National Focal Points for Wildlife



Source: Dr John Berezowski, in Stephen C., Berezowski, J. et al (OIE/WOAH, 2021)

Analysis of Seizures of CITES-listed species (as live specimens)

CITES TAXA IN GLOBAL TRADE

Association with WHO R&D Blueprint Priority Diseases

- Legal trade (reported)
- Illegal trade (seizures)

		WHO R&D Blueprint priority diseases										
		COVID-19	Crimean-Congo haemorrhagic fever	Ebola virus disease (EVD)	Hendra virus	Lassa fever	Marburg virus	Middle East respiratory syndrome coronavirus	Nipah virus	Rift Valley fever	Severe Acute Respiratory Syndrome (SARS)	Zika virus
Mammals	Aotidae											+
	Bovidae		+	+						+		+
	Camelidae		+							+		
	Canidae		+						+	+	+	
	Cebidae						+	+	+		+	+
	→ Cercopithecidae	+		+			+	+	+	+	+	+
	Cervidae									+		
	Dasypodidae											+
	Elephantidae		+							+		+
	Equidae		+							+		+
	→ Felidae	+	+						+	+	+	+
	Giraffidae		+							+		
	Hippopotamidae											+
	Hominidae			+								+
	Leporidae		+					+				+
	Manidae	+										
	→ Muridae		+	+		+				+	+	+
	→ Mustelidae	+									+	
	→ Pteropodidae	+		+	+		+			+	+	+
→ Sciuridae		+							+		+	
→ Suidae		+	+						+	+	+	
Viverridae		+								+		

Table 6: Matrix showing the WHO R&D Blueprint priority diseases associated with CITES families found in illegal trade as live animals. Note that associations between taxa and SARS-CoV, MERS-CoV and SARS-CoV-2 in a number of source papers are based on percentage similarities between animal coronaviruses and human SARS-CoV, MERS-CoV and SARS-CoV-2 isolates (see methodology).



SOCIAL AND BEHAVIOURAL CHANGE

December 2021

SITUATION ANALYSIS

SOCIAL AND BEHAVIOUR CHANGE
MESSAGING ON WILDLIFE TRADE AND
ZOOONOTIC DISEASE RISKS



<https://www.traffic.org/publications/reports/situation-analysis-social-and-behaviour-change-messaging-on-wildlife-trade-and-zoonotic-disease-risks/>



<https://www.traffic.org/publications/reports/review-options-for-managing-and-tracing-wild-animal-trade-chains-to-reduce-zoonotic-risk/>



SUPPLY CHAIN MANAGEMENT & TRACEABILITY

July 2022

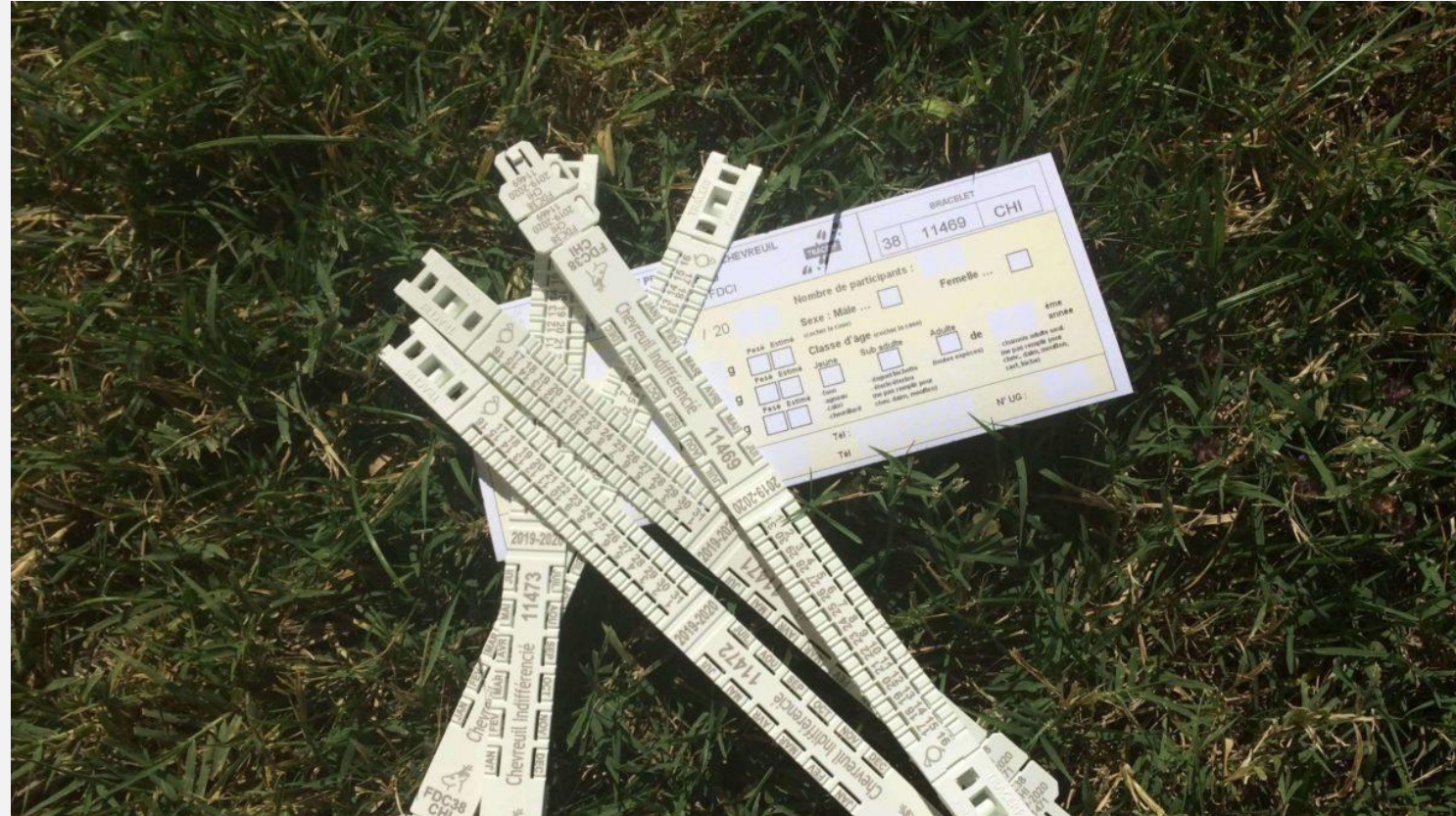
REVIEW: OPTIONS FOR MANAGING AND TRACING
WILD ANIMAL TRADE CHAINS TO REDUCE

ZOOONOTIC DISEASE RISK



FRANCE'S VENISON TRADE

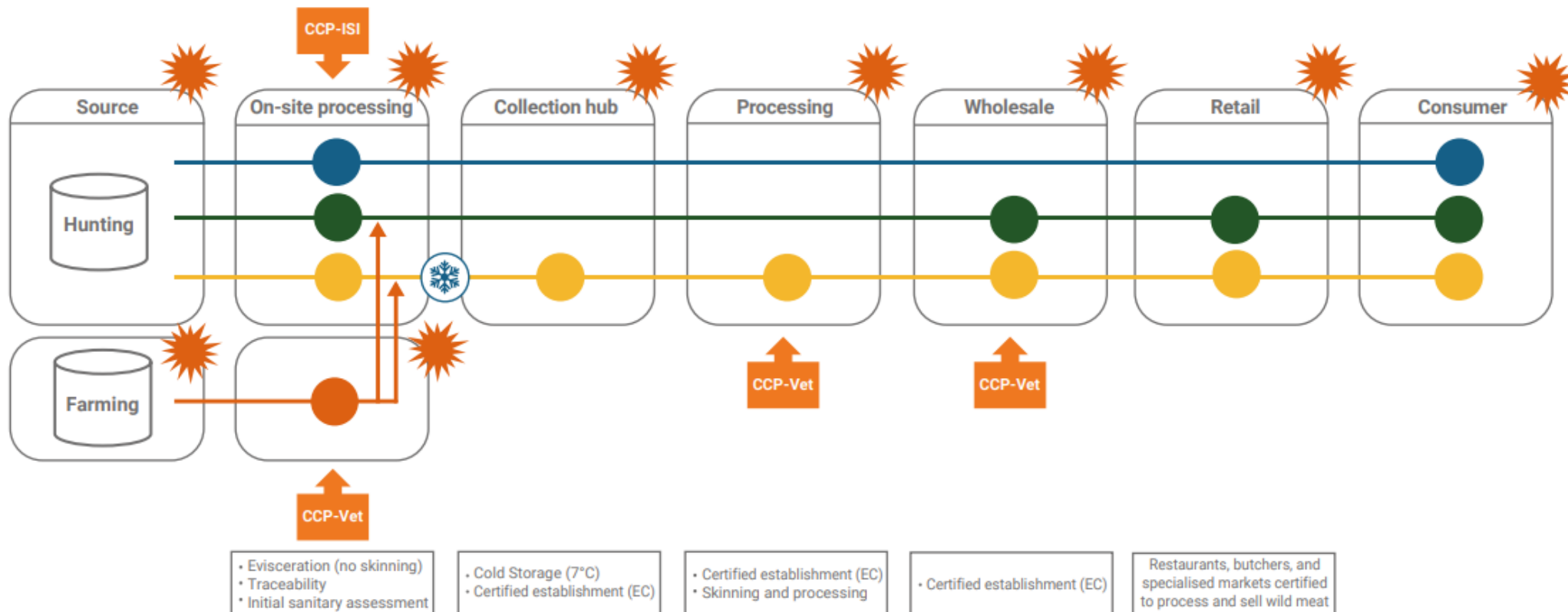
- Mix of wild harvest and farming
- Role of hunting associations in harvest/trade management and implementation of sanitation measures
- Traceability system still paper-based



TAGGING BRACELET AND SPECIMEN FORM REQUIRED FOR HUNTING

Source: Fédération Nationale des Chasseurs, France

VENISON SUPPLY CHAINS IN FRANCE



KEY



Indicates a Critical Control Point: On-site initial sanitary inspection



Indicates a Critical Control Point: By a certified veterinarian



Hazard Point



The carcass can be put in cold storage (7°C) on-site in case of delays

The Short-Direct circuit

- Meat sold or consumed within 80 km from the hunting site (à vol d'oiseau)
- It refers to the consumption of game meat by local hunting association during events, donations or direct conferment, and direct sell by the hunting association or other certified body
- The maximum quantity is the same as the total number of hunted animals during the hunting session (i.e., a day).

The Short-Professional circuit

- Only one intermediary between the initial provider and the consumer.
- The intermediary has to be located less than 80 km from the hunting location in a straight line (à vol d'oiseau). It also needs to be certified to process (i.e., skin and cut) and sale wild meat. Usually butchers, charcutier, specialised supermarkets, among others.
- The maximum quantity is the same as the total number of hunted animals during the hunting session (i.e., a day).

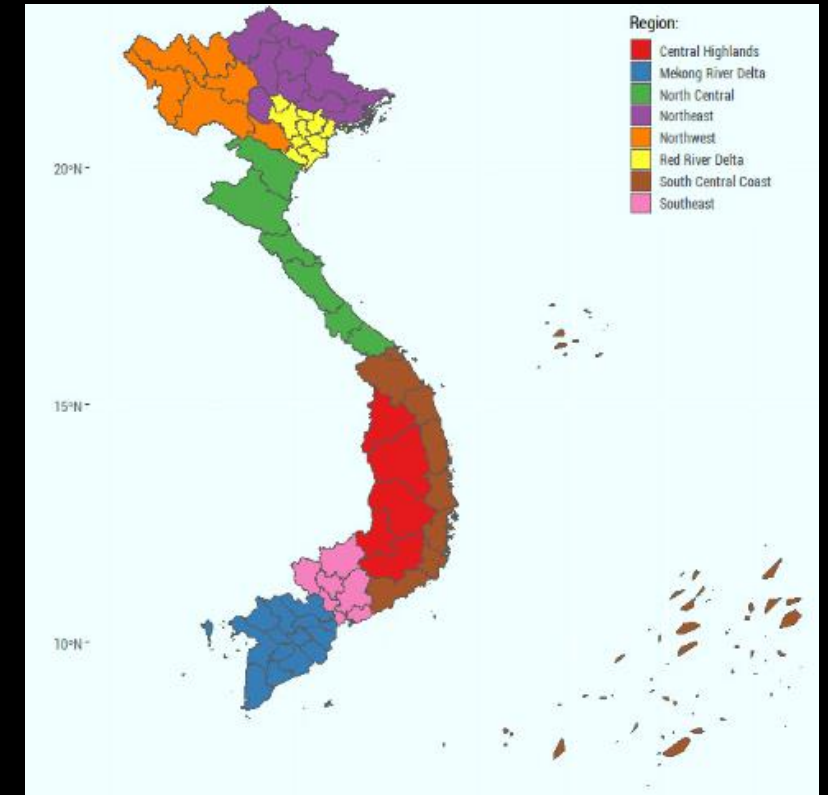
The Long circuit

- Several intermediaries between the initial provider and the consumer.
- No distance or quantity limitations
- The intermediaries are certified to process (i.e., skin and cut) and sale wild meat. Usually regional abattoirs and food processing plants.

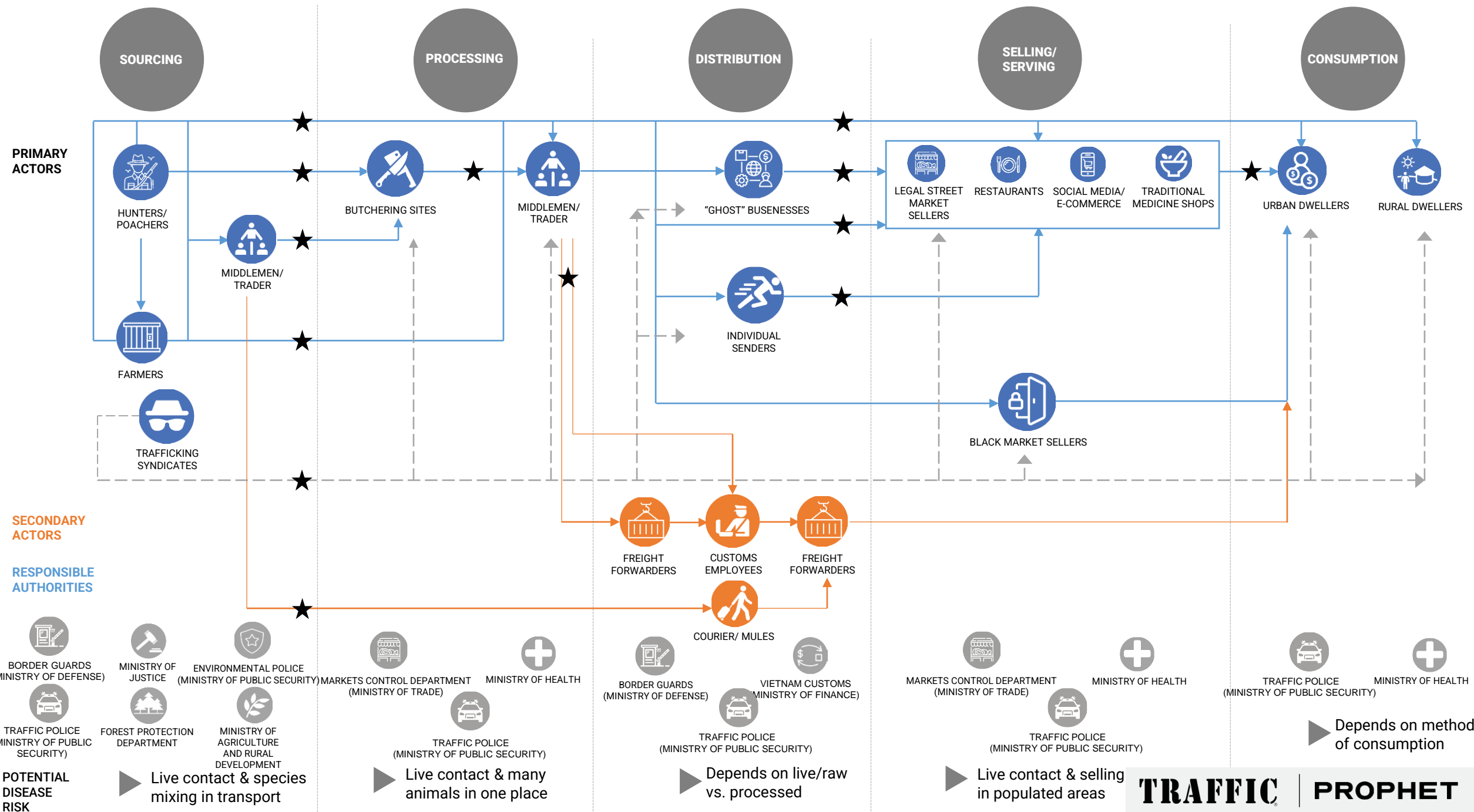
EXPERT ELICITATION TO MAP POTENTIAL RISK POINTS IN VIET NAM WILD ANIMAL TRADE CHAINS

USE OF WILD ANIMALS FOR PERCEIVED HEALTH BENEFITS:







FOOD, INFORMAL TONICS, FORMAL
TRADITIONAL MEDICINE PREPARATIONS



TRAFFIC | **PROPHET**



SUMMARY OF POTENTIAL INTERVENTION OPPORTUNITIES IN VIET NAM

 SOURCING	 PROCESSING	 DISTRIBUTION	 SELLING / SERVING	 CONSUMPTION	 ONLINE AWARENESS
<ul style="list-style-type: none"> 1. Suspend high-risk live wild animal trade until effective regulations and risk assessments are in place 2. Improve biosecurity practices for legal wildlife farms 3. Clearly define criteria for species that can be legally farmed 4. Provide alternative livelihoods or compensation for stakeholders whose work is unsafe 	<ul style="list-style-type: none"> 5. Enforce stricter laws & penalties to regulate transport routes 6. Define and monitor processing / butchering sites and basic standards of hygiene to reduce risk and change processing practices 7. Inform consumers of potential product risks if processing is unmanaged 	<ul style="list-style-type: none"> 8. Updated wildlife trade intelligence and regular training for officers 9. Greater cooperation between relevant government authorities and private sector / civil society organizations 	<ul style="list-style-type: none"> 10. Focus efforts on monitoring & informing market sellers and management of market locations (e.g., separate sections within a physical market) 11. Strictly enforce laws and prosecute illegal retail sellers 12. Shift / reform slaughtering and processing practices (including with restaurants) and improve legal supply chain compliance 	<ul style="list-style-type: none"> 13. Engage responsible government agencies to build cross-sectoral understanding of wildlife trade risk management 14. Promote alternative consumption options for wild animal products 15. Educate young people & tailor wildlife education for urban vs. rural 	<ul style="list-style-type: none"> 16. Create targeted social media messaging campaigns 17. Partner with credible KOLs to amplify reach 18. Optimize wildlife content and keywords in search engines

MULTI-SECTORAL COLLABORATIONS

At national level e.g., in Viet Nam

- Pandemic Prevention Task Force (IGOs, NGOs, bilateral missions)
- One Health Partnership (Government, inter-ministerial)
- Technical Working Group on Wildlife and Pandemic Prevention (Government and non-government partners)



CONCLUSIONS

(Policy and Regulation)

Farms

Transportation

Markets

Reducing Zoonotic Disease Risks in Wildlife Trade

Understanding of risk-based priorities

- **Taxa** – including mixing of species and trade magnitude, as well as type of specimen (live, raw meat/body parts, processed)
- **Pathogens** present, and association with different taxa (wild/domestic)
- **Human behaviour** – practices at human-animal interfaces
- **Context** – socio-political, economic, cultural, ecological, governance

Multi-sectoral action (including One Health collaboration)

- Incorporating wildlife trade management needs as part of One Health collaborative approaches
- Integrating One Health and zoonotic disease risk into existing wildlife trade management systems
 - e.g., > biosecurity requirements for farms + markets
- Reinforcing compliance with legal and sustainability requirements
- Concurrent intelligence-led LE support for reduction in illicit practices
- Social and behavioural change (SBC) messaging to support positive shifts

Thank You

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