







SEACHMOLEPIDEMOLOGY NETWORK MEETING

COUNTRY REPORT: FMD in-depth RA Malaysia

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13-15 April 2025, Qingdao, People's Republic of China



Introduction

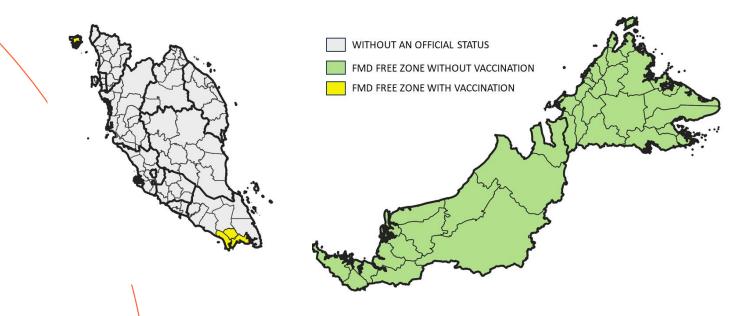
Malaysia is divided into two FMD status zones:

- o FMD-free without vaccination: Sabah and Sarawak
- o FMD-endemic: Peninsular Malaysia

With support from the World Organisation for Animal Health (WOAH), Malaysia is exploring the expansion of FMD-free zones (with vaccination) into *Peninsular Malaysia*, specifically targeting **Johor and Langkawi**. **This aims** to improve FMD control and subsequently boost trade opportunities.

A comprehensive Risk Assessment (RA) was conducted, which included:

- Quantitative Risk Assessment (QRA)
- O Systematic literature review
- o FMD data analysis
- Value Chain Analysis (VCA),
 based on field missions and
 stakeholder consultations





Objectives of in-dept risk assessment of FMD in P. Malaysia

General objectives

- To identify risk nodes in livestock value chains.
- To understand and quantify the risks posed by animal movements, plus their socioeconomic impact.
- To consider risk mitigation measures to reduce the impact of FMD incursions.

Specific objectives

- To conduct qualitative and quantitative FMD risk assessments in Johor and Langkawi.
- To assess the socio-economic impacts of FMD incursions in Johor and Langkawi.
- To provide recommendations to DVS.

Led by the consultants:

- o Dr. Daan Vink,
- o Dr. John Grewar,





Methodology of in-dept risk assessment of FMD in P. Malaysia





Methodology: Data source

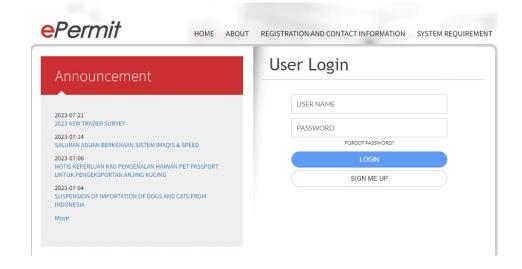


Section 6 to 8 of the Animals Act 1953 MAQIS Act 2011

SOP:

Risk Analysis

Animal Quarantine Procedure



Pre-border risk assessment Import- procedure:

Country risk assessment (Risk assessment committee)

Import protocol (specific for a country)

ePermit System
Import permit issuance
Health Certificate from exporting
country

Border control:
MAQIS
PDRM & PGA



Methodology: Data source



Process Flow for The Interstate Movement of Animals and Animal Products

Legislation: Section 79 of the Animal act 1953

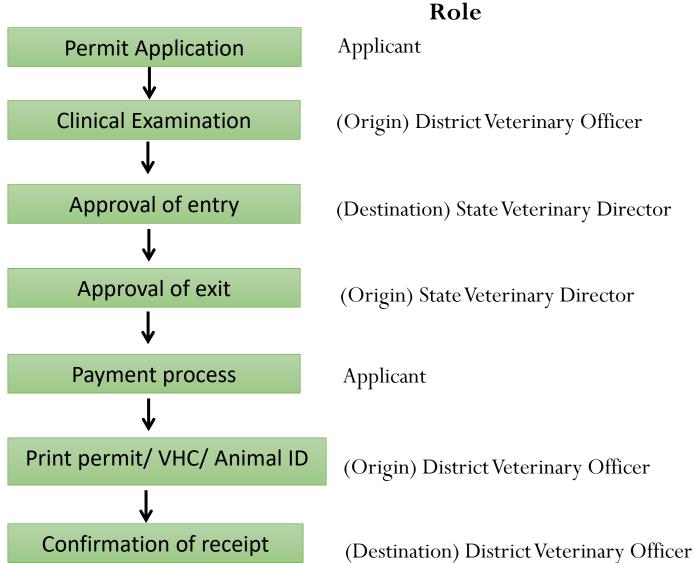
SOP:

Animal Traceability and Premise Registration

Animal identification and registration Interstate Animal and product movement management

Intrastate Animal and product movement management

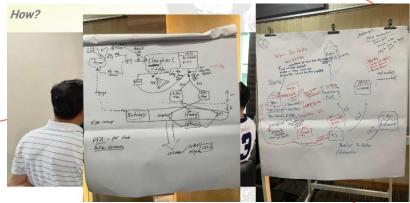






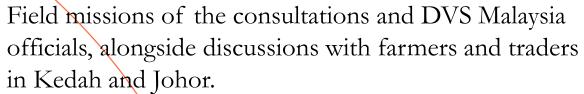
Methodology: data source











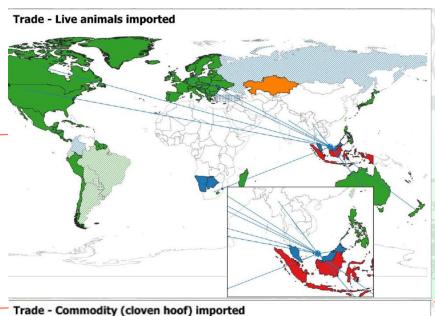




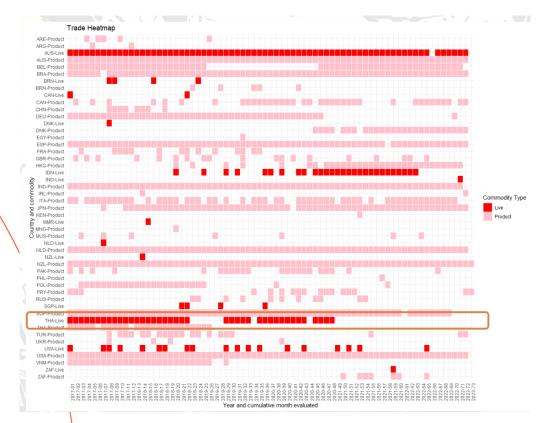




Result of in-dept risk assessment of FMD in P. Malaysia

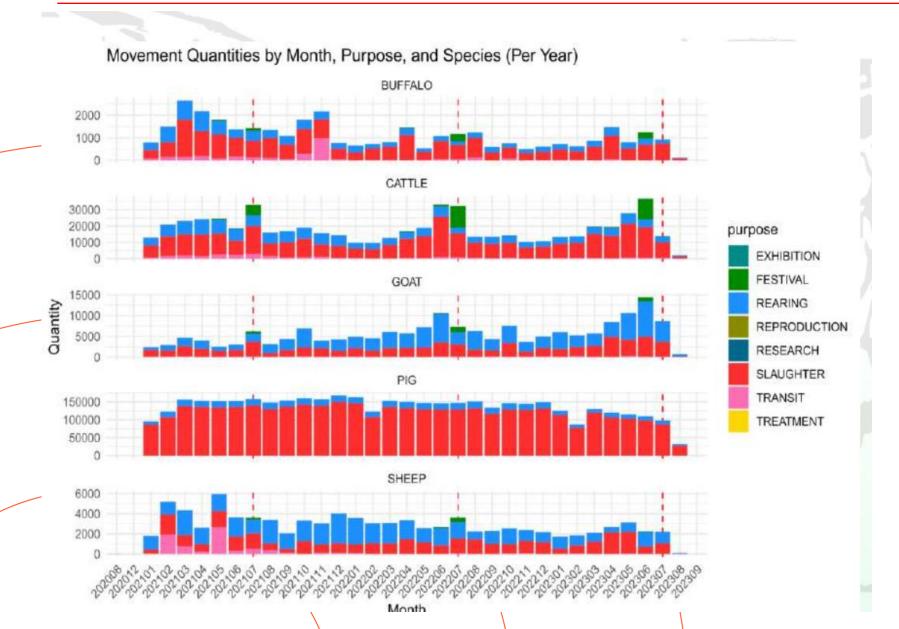


- O Malaysia is dependent on imports for ruminant livestock and related products.
- O Live ruminant imports to Malaysia primarily come from Australia and Thailand.
- O Malaysia imports ruminant livestock-related products from countries around the world.





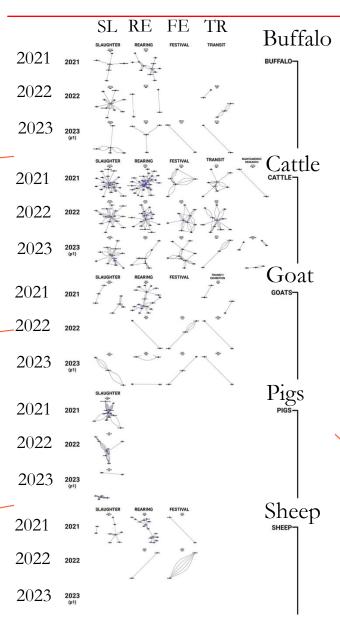
Result: susceptible animal movement network

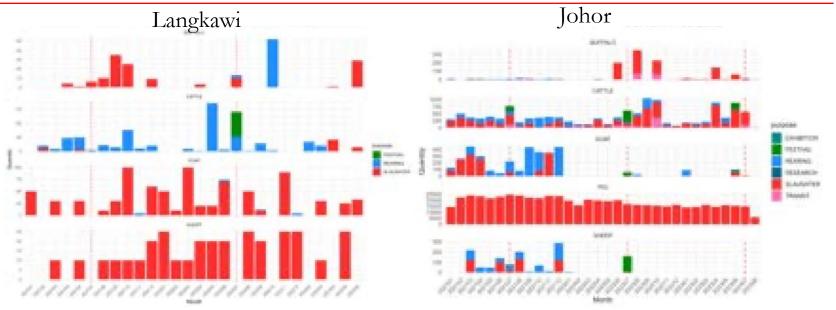


Unlike goats and sheep, majority of cattle, pig, and buffalo movements are primarily for slaughter purposes.



Result: susceptible animal movement network





Monthly movements of buffalo, cattle, goat, sheep and pig within and between P. Malaysian states movement occurred into Johor and Langkawi .

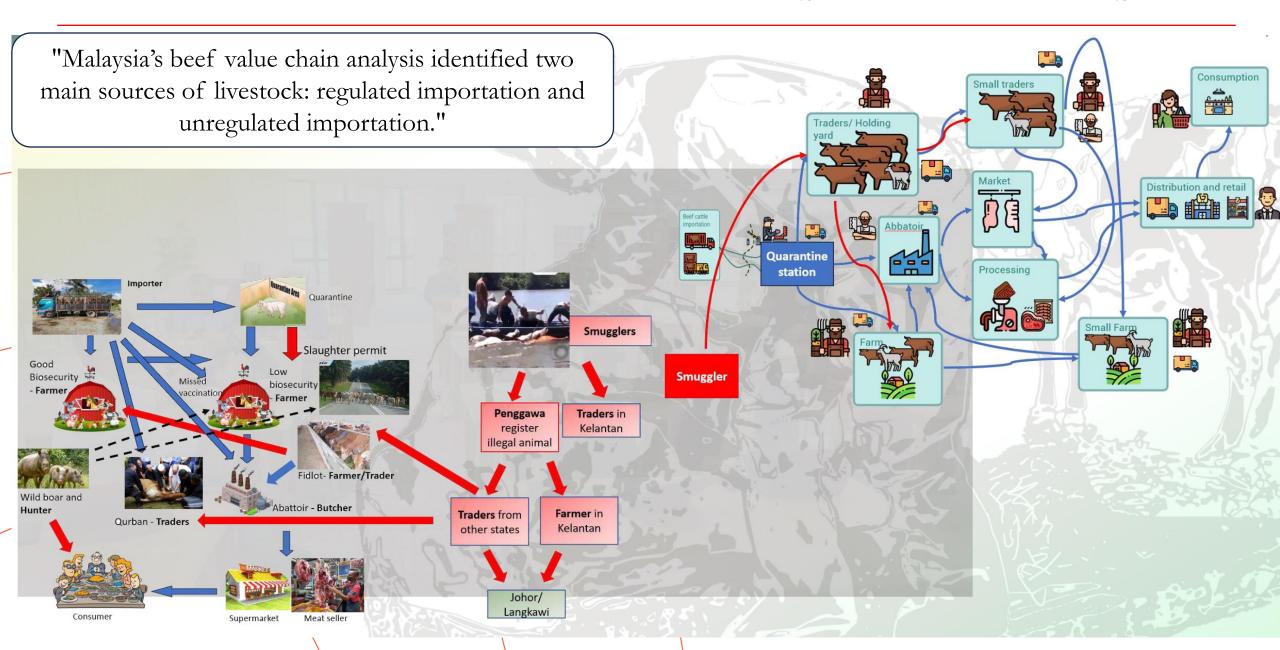
- O Langkawi: No live pigs move to this island 2021-2023
- Majority of live cattle, buffalo and sheep were moved for slaughter purpose. Goat for rearing

- Johor: live pigs move into Johor only for slaughter
- o Majority of live buffalo were moved for slaughter purpose.
- Cattle, goat and sheep move for rearing and slaughter from other states

Networks of animal movements into the Johor FMD free zone by year, movement purpose and species. Nodes depict district of origin, edges depict a movement event consisting of one or more animals.

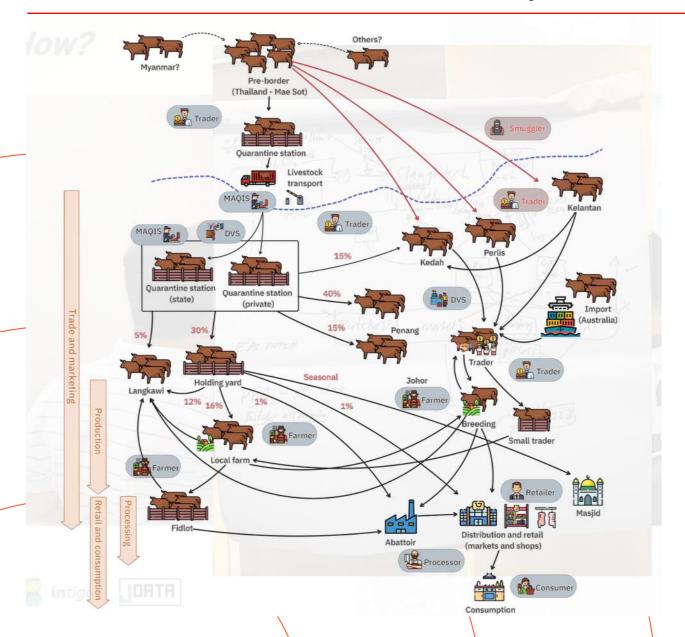


Result the value chain analysis of FMD susceptible livestock and products





Result: value chain Analysis of beef in Peninsular Malaysia



- The cattle trade network is highly connected and regulated but remains vulnerable to illegal beef cattle movements both into and within the country.
- Addressing illegal imports will require significant investment in management and enforcement.
- Without intervention, FMD will continue to occur in P. Malaysia, putting the FMD-free zone in Johor at greater risk due to its shared land border with the other states in P. Malaysia.



Key points of value chain analysis of beef in P. Malaysia

- O Effective engagement between the Department of Veterinary Services (DVS), the public sector, and other stakeholders is crucial to foster mutual understanding and address key issues.
- O This collaboration between DVS official, farmers and traders has supported the visualization and parameterization of risk points along the value chain.
- O The FMD susceptible livestock network is highly connected and regulated but remains vulnerable to illegal ruminant movements, both into and within the country.
- O Reducing illegal importation will require substantial investment in management and enforcement efforts.
- O Without action, foot-and-mouth disease (FMD) will continue to affect Peninsular Malaysia.



Specific recommendations of FMD in-dept risk assessment in P. Malaysia

- Perform epidemiological investigation to clarify the FMD situation, especially in intended free zones and adjacent areas.
- Better understanding of risk activities such as smuggling e.g. through more formal and rigorous value chain analysis.
- Review the FMD surveillance system and perform modelling of FMD vaccination options and scenarios, to optimise resource effectiveness.
- Enhance training and capacity development.
- More detailed economic planning / feasibility calculations of the FMD free zone of Langkawi Kedah and Johor.
- Explore options such as PPPs for cost sharing and recovery.



