

Application of Zoning in Practice

DR. CHUO HOCK TIENG

Principal Assistant Director,
Head of Veterinary Health Division,
Department of Veterinary Services Sarawak

DR. NIECCORITA WONG

Principal Assistant Director,
Head of Veterinary Health Division,
Department of Veterinary Services Sabah

Sub -regional training workshop on zoning and compartmentalisation
in the facilitation of safe trade, 28-30 April 2026



Presentation covers

- How WOAHA recognised FMD free zone without vaccination is actually ***achieved, maintain, and used*** to facilitate safe trade.
- *FMD free zone achieved – history, background, rationale, design, processes, geography, risk base approaches etc.*
- *Maintenance of the zone- risk analysis, Surveillance, animal movement control, Animal identification and traceability, biosecurity and ,laboratory other measures as per WOAHA Terrestrial Code.*
- *Emergency preparedness and response, contingency planning*
- *Use of technology, communication and other measures or systems to maintain the zone, Stakeholder engagement Public Private Sector (PPP)*
- *Using zone to facilitate safe trade- experience sharing how zones are used to facilitate safe trade, market*
- *Practical challenges*
- *Summary*



OVERVIEW OF SABAH AND SARAWAK FMD STATUS



Historical Freedom: No clinical or serological evidence of FMD for over 25 years.

Official Recognition: Recognized by the World Organisation for Animal Health (WOAH) as an FMD-free zone without vaccination since 2004

Strategic Goal: Protecting the state's multi-species livestock industry and ensuring international market access



RATIONALE AND DESIGN OF THE ZONE

Zone Delineation: The entire state of Sabah and Sarawak acts as a single, contiguous FMD-free zone

Rationale: Leveraging geography and strict veterinary oversight to maintain freedom without the costs or trade restrictions associated with vaccination

Process: Achieved through rigorous self-declaration and official recognition processes following the WOAHP Terrestrial Code



SABAH & SARAWAK: FMD FREE ZONE WITHOUT VACCINATION

Rationale & Design of a Contiguous, Risk-Based, and WOA-Recognised Free Zone

DVS

DEPARTMENT OF
VETERINARY SERVICES
SABAH



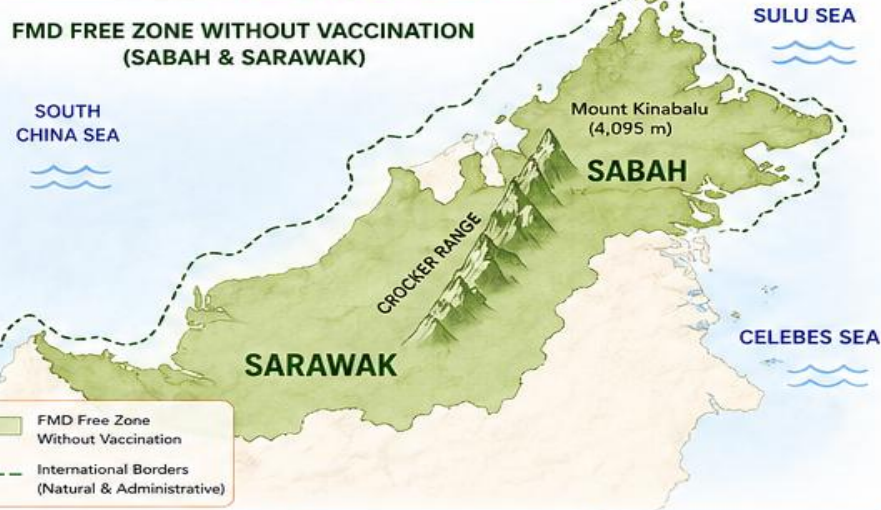
Sabah and Sarawak are officially recognised by WOA- as FMD-free zones without vaccination since 2004.

1

ZONE DELINEATION: A CONTIGUOUS ENCLAVE

The entire states of Sabah and Sarawak are designated as a single, **contiguous FMD-free zone**.

FMD FREE ZONE WITHOUT VACCINATION (SABAH & SARAWAK)



GEOGRAPHIC BOUNDARIES



The zone is naturally isolated by the South China Sea (west), the Sulu Sea (northeast) and the Celebes Sea (southeast), which act as natural buffers against disease incursion.

LAND & MARITIME BORDERS

Boundaries are strictly managed through:

- Land border checkpoints (e.g. Sebatik Island, Sindumin)
- Gazetted seaports & airports
- Maritime enforcement zones

INTERNAL BARRIERS



Internal topography, including the Crocker Range and Mount Kinabalu, creates natural physical barriers that restrict the movement of livestock and help contain potential disease spread.



These natural and administrative features together create a well-defined, secure and manageable contiguous free zone across Sabah and Sarawak.

2

RATIONALE: STRATEGIC TRADE & ECONOMIC EFFICIENCY



AVOIDING TRADE RESTRICTIONS

Maintaining "free without vaccination" status enables Sabah and Sarawak to access premium international and domestic markets that often restrict or impose additional testing on vaccinated regions.



COST MINIMISATION

Avoids the massive recurring costs of vaccine purchase, cold chain maintenance and labour-intensive, state-wide inoculation programmes.



LEVERAGING OVERSIGHT OVER VACCINATION

Relies on strict veterinary oversight—rigorous import controls, quarantine and continuous serological surveillance—to mitigate the risk of virus incursion.



SUPPORTING NICHE INDUSTRIES

Essential for the growth of niche industries such as dairy and deer farming, providing the official assurance needed for these products to enter competitive markets.



This strategic approach maximises economic opportunities while minimising costs and maintaining the highest biosecurity standards.

3

PROCESS: WOA- ALIGNMENT & RECOGNITION



SELF-DECLARATION & RECOGNITION

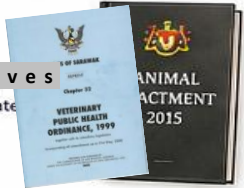
Sabah and Sarawak followed the formal procedures for self-declaration to the World Organisation for Animal Health (WOAH) and have been officially recognised as FMD-free without vaccination since 2004.

FMD-FREE
WITHOUT
VACCINATION
SINCE
2004



REGULATORY FRAMEWORK

Supported by state legislation, primarily **State Legislatives** which empowers authorities to mandate reporting, restrict movement and implement quarantine.



ANNUAL RECONFIRMATION

Maintenance is a continuous process. Sabah and Sarawak submit annual surveillance reports for reconfirmation of their status in accordance with Article 1.4.6 of the WOA- Terrestrial Code.



EVIDENCE-BASED COMPLIANCE

Freedom is demonstrated through annual serological and clinical surveys (following WOA- Articles 8.8.40–8.8.42) and a comprehensive dossier proving no occurrence of FMD infection for over 25 years.



A SCIENTIFICALLY DESIGNED, RISK-BASED AND INTERNATIONALLY RECOGNISED FREE ZONE

Sabah and Sarawak's FMD free zone design leverages natural geography, strong governance and robust surveillance to protect livestock health, support trade and safeguard livelihoods for future generations.



Protecting
Animal Health



Enabling
Trade Access



Driving
Economic Growth



Safeguarding
Livelihoods



Ensuring
Biosecurity
Sustainability



SABAH & SARAWAK: FMD FREE ZONE WITHOUT VACCINATION

Rationale & Design of a Contiguous, Risk-Based, and WOA-Recognised Free Zone

DVS

DEPARTMENT OF
VETERINARY SERVICES
SABAH



Sabah and Sarawak are officially recognised by WOA- as FMD-free zones without vaccination since 2004.

1

ZONE DELINEATION: A CONTIGUOUS ENCLAVE

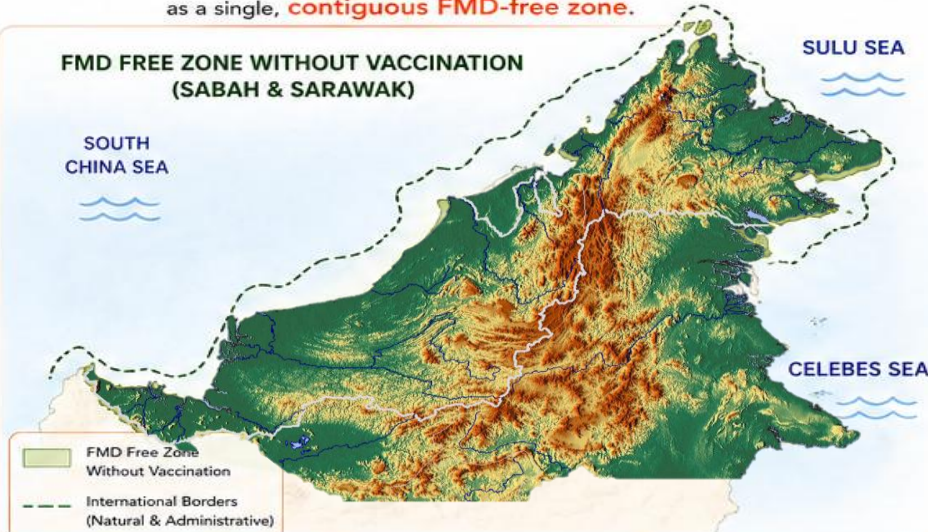
The entire states of Sabah and Sarawak are designated as a single, **contiguous FMD-free zone**.

FMD FREE ZONE WITHOUT VACCINATION (SABAH & SARAWAK)

SOUTH
CHINA SEA

SULU SEA

CELEBES SEA



GEOGRAPHIC BOUNDARIES



The zone is naturally isolated by the South China Sea (west), the Sulu Sea (northeast) and the Celebes Sea (southeast), which act as natural buffers against disease incursion.

LAND & MARITIME BORDERS

Boundaries are strictly managed through:

- Land border checkpoints (e.g. Sebatik Island, Sindumin)
- Gazetted seaports & airports
- Maritime enforcement zones

INTERNAL BARRIERS



Internal topography, including the Crocker Range and Mount Kinabalu, creates natural physical barriers that restrict the movement of livestock and help contain potential disease spread.



These natural and administrative features together create a well-defined, secure and manageable contiguous free zone across Sabah and Sarawak.

2

RATIONALE: STRATEGIC TRADE & ECONOMIC EFFICIENCY



AVOIDING TRADE RESTRICTIONS

Maintaining "free without vaccination" status enables Sabah and Sarawak to access premium international and domestic markets that often restrict or impose additional testing on vaccinated regions.



COST MINIMISATION

Avoids the massive recurring costs of vaccine purchase, cold chain maintenance and labour-intensive, state-wide inoculation programmes.



LEVERAGING OVERSIGHT OVER VACCINATION

Relies on strict veterinary oversight—rigorous import controls, quarantine and continuous serological surveillance—to mitigate the risk of virus incursion.



SUPPORTING NICHE INDUSTRIES

Essential for the growth of niche industries such as dairy and deer farming, providing the official assurance needed for these products to enter competitive markets.



This strategic approach maximises economic opportunities while minimising costs and maintaining the highest biosecurity standards.

3

PROCESS: WOA- ALIGNMENT & RECOGNITION



WOAH

SELF-DECLARATION & RECOGNITION

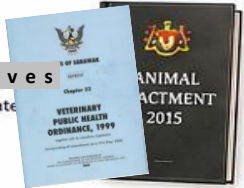
Sabah and Sarawak followed the formal procedures for self-declaration to the World Organisation for Animal Health (WOAH) and have been officially recognised as FMD-free without vaccination since 2004.

FMD-FREE
WITHOUT
VACCINATION
SINCE
2004



REGULATORY FRAMEWORK

Supported by state legislation, primarily **State Legislatives** which empowers authorities to mandate reporting, restrict movement and implement quarantine.



ANNUAL RECONFIRMATION

Maintenance is a continuous process. Sabah and Sarawak submit annual surveillance reports for reconfirmation of their status in accordance with Article 1.4.6 of the WOA- Terrestrial Code.



EVIDENCE-BASED COMPLIANCE

Freedom is demonstrated through annual serological and clinical surveys (following WOA- Articles 8.8.40–8.8.42) and a comprehensive dossier proving no occurrence of FMD infection for over 25 years.



A SCIENTIFICALLY DESIGNED, RISK-BASED AND INTERNATIONALLY RECOGNISED FREE ZONE

Sabah and Sarawak's FMD free zone design leverages natural geography, strong governance and robust surveillance to protect livestock health, support trade and safeguard livelihoods for future generations.



Protecting
Animal Health



Enabling
Trade Access



Driving
Economic Growth



Safeguarding
Livelihoods



Ensuring
Biosecurity
Sustainability



SABAH & SARAWAK: FMD FREE ZONE WITHOUT VACCINATION

Rationale & Design of a Contiguous, Risk-Based, and WOA-Recognised Free Zone

DVS

DEPARTMENT OF
VETERINARY SERVICES
SABAH



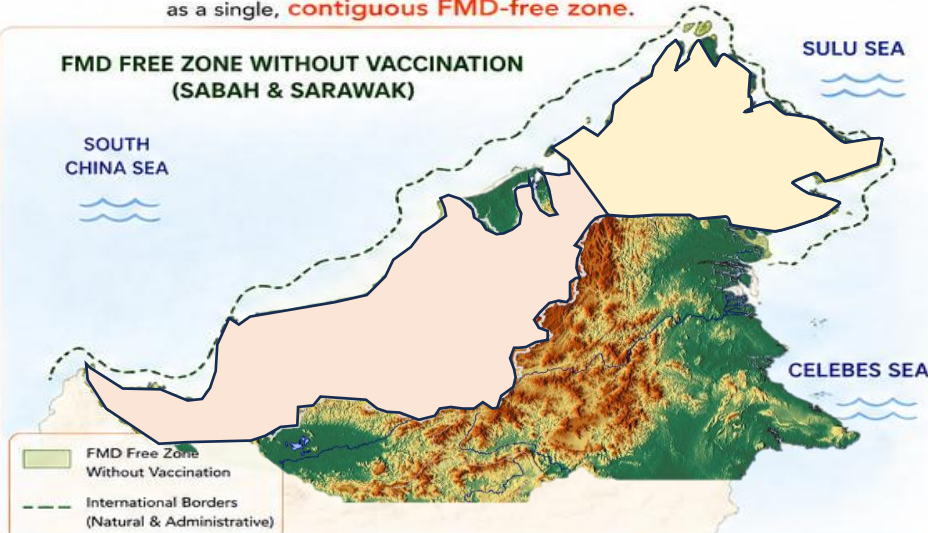
Sabah and Sarawak are officially recognised by WOA- as FMD-free zones without vaccination since 2004.

1

ZONE DELINEATION: A CONTIGUOUS ENCLAVE

The entire states of Sabah and Sarawak are designated as a single, **contiguous FMD-free zone**.

FMD FREE ZONE WITHOUT VACCINATION (SABAH & SARAWAK)



GEOGRAPHIC BOUNDARIES



The zone is naturally isolated by the South China Sea (west), the Sulu Sea (northeast) and the Celebes Sea (southeast), which act as natural buffers against disease incursion.

LAND & MARITIME BORDERS

Boundaries are strictly managed through:

- Land border checkpoints (e.g. Sebatik Island, Sindumin)
- Gazetted seaports & airports
- Maritime enforcement zones

INTERNAL BARRIERS



Internal topography, including the Crocker Range and Mount Kinabalu, creates natural physical barriers that restrict the movement of livestock and help contain potential disease spread.



These natural and administrative features together create a well-defined, secure and manageable contiguous free zone across Sabah and Sarawak.

2

RATIONALE: STRATEGIC TRADE & ECONOMIC EFFICIENCY



AVOIDING TRADE RESTRICTIONS

Maintaining "free without vaccination" status enables Sabah and Sarawak to access premium international and domestic markets that often restrict or impose additional testing on vaccinated regions.



COST MINIMISATION

Avoids the massive recurring costs of vaccine purchase, cold chain maintenance and labour-intensive, state-wide inoculation programmes.



LEVERAGING OVERSIGHT OVER VACCINATION

Relies on strict veterinary oversight—rigorous import controls, quarantine and continuous serological surveillance—to mitigate the risk of virus incursion.



SUPPORTING NICHE INDUSTRIES

Essential for the growth of niche industries such as dairy and deer farming, providing the official assurance needed for these products to enter competitive markets.



This strategic approach maximises economic opportunities while minimising costs and maintaining the highest biosecurity standards.

3

PROCESS: WOA- ALIGNMENT & RECOGNITION



SELF-DECLARATION & RECOGNITION

Sabah and Sarawak followed the formal

FMD-FREE
WITHOUT

Annual reconfirmation of WOA- officially recognised animal health status - MALAYSIA



World
Organisation
for Animal
Health
Founded in 1924

Organisation
mondiale
de la santé
animale
Fondée en 1924

Organización
Mundial
de Sanidad
Animal
Fundada como OIE

This form has been Validated : 2026-03-11 16:24:08

Form for the annual reconfirmation of the foot and mouth disease (FMD) status of WOA-
Members: FMD free zone where vaccination is not practised.
(submit during the month of November each year)

FMD free zone without vaccination

Year: 2025

Country: MALAYSIA

Zone: Zone covering the provinces of Sabah and Sarawak as designated by the Delegate of Malaysia in a document addressed to the Director General in December 2003

In accordance with Resolution No. 15 of the 2020 Adapted Procedure and other relevant Resolutions previously adopted, Members having an officially recognised animal health or risk status should reconfirm every year, during the month of November, that their status has remained unchanged.

[Reference to the relevant chapter of the Terrestrial Animal Health Code](#)

comprehensive dossier proving no occurrence of FMD infection for over 25 years.



A SCIENTIFICALLY DESIGNED, RISK-BASED AND INTERNATIONALLY RECOGNISED FREE ZONE

Sabah and Sarawak's FMD free zone design leverages natural geography, strong governance and robust surveillance to protect livestock health, support trade and safeguard livelihoods for future generations.



Protecting
Animal Health



Enabling
Trade Access



Driving
Economic Growth



Safeguarding
Livelihoods



Ensuring
Biosecurity
Sustainability



GEOGRAPHY AND NATURAL BARRIERS



Maritime Boundaries: Surrounded by the South China, Sulu and Celebes Seas, which act as a buffer against transboundary movement.



Topography: Sabah - The Crocker Range and Mount Kinabalu serve as natural barriers restricting internal livestock movement



Key Risk Points: Sabah - Sebatik Island (shared border with Indonesia) and maritime proximity to Kalimantan and the Philippines.

APPLICATION OF ZONING IN PRACTICE

GEOGRAPHY AND NATURAL BARRIERS



MARITIME BOUNDARIES

Surrounded by the South China, Sulu, and Celebes Seas, which act as a buffer against transboundary movement.



TOPOGRAPHY

The Crocker Range and Mount Kinabalu serve as natural physical barriers restricting internal livestock movement.

NATURAL BARRIERS



- ✓ Mountain ranges
- ✓ Dense forests
- ✓ Rugged terrain
- ➔ Limit easy movement of livestock and people.



KEY RISK POINTS



SEBATIK ISLAND

Shared land border with Indonesia. Close proximity poses highest risk for animal and product movement.



MARITIME PROXIMITY TO KALIMANTAN

Short sea distance to Kalimantan, increasing the risk of illegal livestock and product movement.



MARITIME PROXIMITY TO THE PHILIPPINES

Maritime proximity to Palawan, Philippines (~50 km at closest point – Balabac Strait) poses risk for cross-border movement of animals and animal products.



**STRONG GEOGRAPHY.
STRONGER BIOSECURITY.**



Natural barriers complement strong veterinary oversight and surveillance.



Targeted control at key risk points strengthens the FMD-free status of Sabah.



Integrated border management and cross-agency collaboration reduce risks.



Protecting Sabah's geographical advantages sustains its FMD-free zone without vaccination.

APPLICATION OF ZONING IN PRACTICE

GEOGRAPHY AND NATURAL BARRIERS



MARITIME BOUNDARIES

Surrounded by the South China, Sulu, and Celebes Seas, which act as a buffer against transboundary movement.



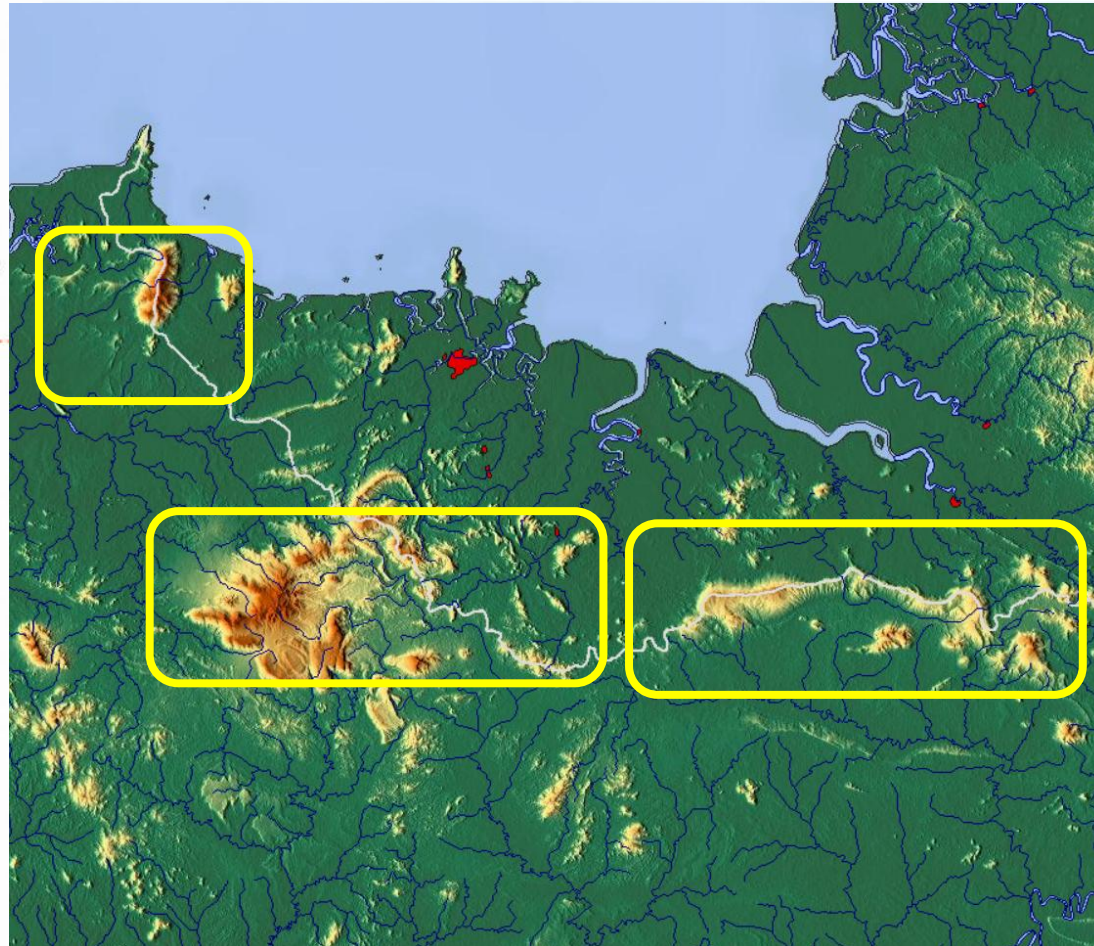
TOPOGRAPHY

The Crocker Range and Mount Kinabalu serve as natural physical barriers restricting internal livestock movement.

NATURAL BARRIERS



- ✓ Mountain ranges
- ✓ Dense forests
- ✓ Rugged terrain
- ➔ Limit easy movement of livestock and people.



KEY RISK POINTS



SEBATIK ISLAND

Shared land border with Indonesia. Close proximity poses highest risk for animal and product movement.



MARITIME PROXIMITY TO KALIMANTAN

Short sea distance to Kalimantan, increasing the risk of illegal livestock and product movement.



MARITIME PROXIMITY TO THE PHILIPPINES

Maritime proximity to Palawan, Philippines (~50 km at closest point – Balabac Strait) poses risk for cross-border movement of animals and animal products.



**STRONG GEOGRAPHY.
STRONGER BIOSECURITY.**



Natural barriers complement strong veterinary oversight and surveillance.



Targeted control at key risk points strengthens the FMD-free status of Sabah.



Integrated border management and cross-agency collaboration reduce risks.



Protecting Sabah's geographical advantages sustains its FMD-free zone without vaccination.



RISK-BASED MAINTENANCE APPROCHES



Risk Analysis Committee (RAC): Vets all applications for importing animals and products to ensure they originate from safe, FMD-free sources.



Targeted Surveillance Annual surveys use 0.5% design prevalence in high-risk buffer zones (e.g., Tawau and Beaufort) to ensure early detection



Strategic Vetting: Audits of foreign establishments to verify compliance with local biosecurity standards.



Border Control & Enforcement: 100% document verification and physical inspection at 13 strategic entry points, supported by **inter-agency collaboration** to detect and seize non-compliant transboundary products

APPLICATION OF ZONING IN PRACTICE

RISK-BASED MAINTENANCE APPROACHES



A risk-based approach ensures the continued protection and maintenance of Sabah's FMD-free status through science, compliance and strong veterinary oversight.



1

RISK ANALYSIS COMMITTEE (RAC)

Vets all applications for importing animals and products to ensure they originate from safe, FMD-free sources.



Import application submitted



Risk assessment of country and product origin



Veterinary evaluation by RAC



Approval for import (safe, FMD-free sources only)

2

TARGETED SURVEILLANCE (HIGH-RISK BUFFER ZONES)

Annual surveys use 0.5% design prevalence in high-risk buffer zones (e.g., Tawau and Beaufort) to ensure early detection.



0.5% design prevalence in high-risk buffer zones



Stratified sampling and risk-based targeting



Early detection for rapid response and protection

3

STRATEGIC VETTING

Mandatory audits of foreign establishments to verify compliance with local biosecurity and sanitary standards before approval is granted.



- ✓ Pre-audit assessment
- ✓ On-site audit by veterinary officers
- ✓ Verification of biosecurity & disease control
- ✓ Corrective actions (if required)
- ✓ Approval for import (if compliant)

4

BORDER CONTROL & ENFORCEMENT

100% document verification and physical inspection at 13 strategic entry points, supported by inter-agency collaboration to detect and seize non-compliant transboundary products.



100% document verification



Physical inspection of consignments



13 strategic entry points across Sabah



Inter-agency collaboration



Detection and seizure of non-compliant products

RISK-BASED MAINTENANCE DELIVERS STRONGER PROTECTION



Prevents the introduction of FMD through high-risk pathways



Enables early detection and rapid response



Ensures compliance through audits and enforcement



Strengthens collaboration across agencies and borders



Protects livestock health, livelihoods and trade



Science-led. Risk-based. Collaboration-driven. **Safeguarding Sabah's FMD-free status, today and for the future.**



APPLICATION OF ZONING IN PRACTICE

RISK-BASED MAINTENANCE APPROACHES



A risk-based approach ensures the continued protection and maintenance of Sabah's FMD-free status through science, compliance and strong veterinary oversight.



1

RISK ANALYSIS COMMITTEE (RAC)

Vets all applications for importing animals and products to ensure they originate from safe, FMD-free sources.



Import application submitted



Risk assessment of country and product origin



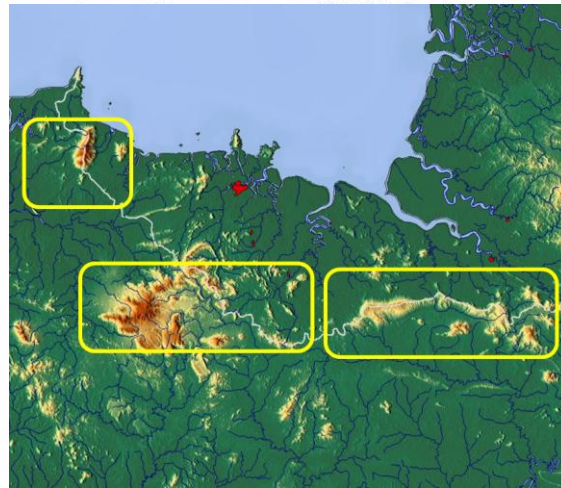
Veterinary evaluation by RAC



Approval for import (safe, FMD-free sources only)

2

TARGETED SURVEILLANCE (HIGH-RISK BUFFER ZONES)



0.5% design prevalence in high-risk buffer zones



Stratified sampling and risk-based targeting



Early detection for rapid response and protection

3

STRATEGIC VETTING

Mandatory audits of foreign establishments to verify compliance with local biosecurity and sanitary standards before approval is granted.



- ✓ Pre-audit assessment
- ✓ On-site audit by veterinary officers
- ✓ Verification of biosecurity & disease control
- ✓ Corrective actions (if required)
- ✓ Approval for import (if compliant)

4

BORDER CONTROL & ENFORCEMENT

100% document verification and physical inspection at 13 strategic entry points, supported by inter-agency collaboration to detect and seize non-compliant transboundary products.



100% document verification



Physical inspection of consignments



13 strategic entry points across Sabah



Inter-agency collaboration



Detection and seizure of non-compliant products

RISK-BASED MAINTENANCE DELIVERS STRONGER PROTECTION



Prevents the introduction of FMD through high-risk pathways



Enables early detection and rapid response



Ensures compliance through audits and enforcement



Strengthens collaboration across agencies and borders



Protects livestock health, livelihoods and trade



Science-led. Risk-based. Collaboration-driven. **Safeguarding Sabah's FMD-free status, today and for the future.**





BORDER CONTROL



13 STRATEGIC ENTRY POINTS ACROSS SABAH

Land, Air & Sea ports monitored for the protection of Sabah's FMD-free status.



AIRPORTS

3



SEA PORTS

6



LAND BORDER POSTS

4

LEGEND



Airports



Sea Ports



Land Border Posts



District Boundary



International Boundary



Major Roads

AIRPORTS (3)

1. DVS Kudat
2. Kota Kinabalu International Airport (KKIA)
3. Sandakan Airport (SDK Airport)
4. Tawau Airport

SEA PORTS (6)

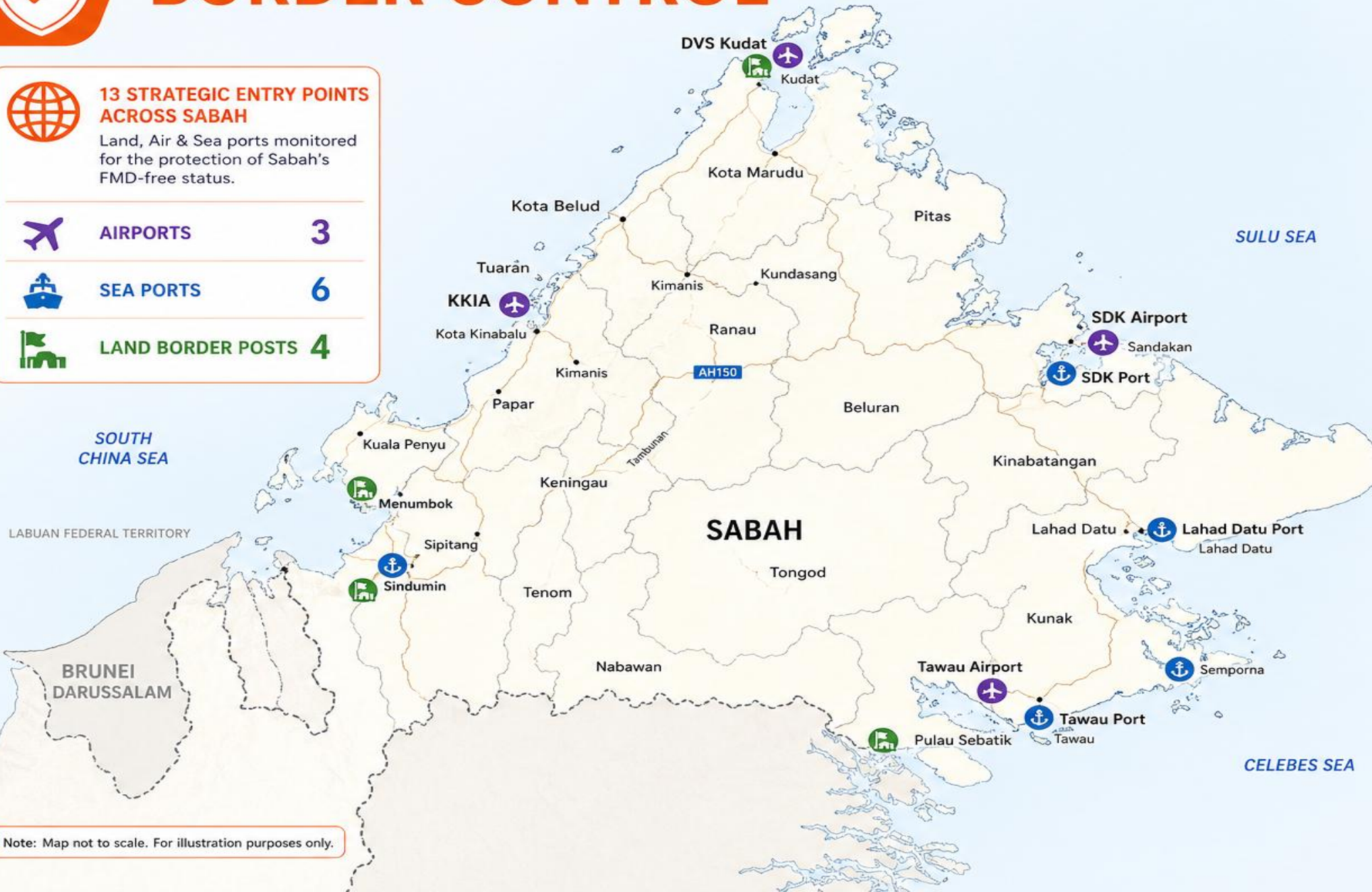
1. Sandakan Port (SDK Port)
2. Lahad Datu Port
3. Tawau Port
4. Kunak Port
5. Semporna Port
6. Menumbok Port

LAND BORDER POSTS (4)

1. Kudat (Entry Point)
2. Menumbok (Entry Point)
3. Sindumin (Entry Point)
4. Pulau Sebatik (Entry Point)

TOTAL ENTRY POINTS

13



Note: Map not to scale. For illustration purposes only.



APPLICATION OF ZONING IN PRACTICE - RISK-BASED MAINTENANCE APPROACH IN SARAWAK

FOR BORDER CONTROL & ENFORCEMENT

OUR APPROACH

Zoning enables a risk-based maintenance approach for border control and enforcement operations.



FOCUS RESOURCES

Deploy where risk is highest and impact is greatest.



ENHANCE READINESS

Regular engagement keeps teams prepared and vigilant.



MAXIMISE IMPACT

Optimise efforts for better outcomes and safer borders.

KEY OUTCOMES

- ✓ Stronger border security
- ✓ Early detection of disease risk
- ✓ Efficient use of enforcement resources
- ✓ Improved coordination & collaboration
- ✓ Safer trade and movement

ANGKATAN TENTERA MALAYSIA (MALAYSIAN ARMED FORCES)



OUR COMMITMENT



With a risk-based and coordinated approach, Sarawak strengthens its borders, protects animal health and supports safe trade and economic growth.

PASUKAN GERAKAN AM (GENERAL OPERATION FORCE)



KUCHING



SIBU



MIRI



SRI AMAN



MIRI

BORDER ENFORCEMENT ENGAGEMENT SESSIONS – SUMMARY



AGENCIES
ENGAGED

2

ATM, PGA



DIVISIONS
COVERED

5

HQ/KCH, SAMARAHAN,
SIBU, MIRI, SRI AMAN



ENGAGEMENT
SESSIONS
CONDUCTED

15

April – May 2026



ESTIMATED
PARTICIPANTS

805

Personnel



ACTUAL
PARTICIPANTS

345

Personnel

STRATEGIC BENEFITS



Strengthens disease prevention and border biosecurity



Improves inter-agency collaboration and information sharing



Targets enforcement where risk is highest and impact is greatest



Enhances operational efficiency and effectiveness



Supports safe trade, regional connectivity and economic growth

TOGETHER, WE PROTECT SARAWAK



Smart zoning. Targeted actions. Stronger borders. Safer future.

Working together for a secure and prosperous Sarawak.



ZONING TODAY. PROTECTING TOMORROW. SECURING SARAWAK.





SURVEILLANCE SYSTEMS



Clinical Surveillance: Ongoing active inspections and passive reporting by farmers and veterinary staff.



Serological Surveys: Annual stratified sampling with a 95% confidence level



Recent Performance : 7000 samples tested in 2025 with zero positive FMD results.

APPLICATION OF ZONING IN PRACTICE

SAFEGUARDING FMD-FREE STATUS THROUGH VIGILANCE & SCIENCE



A strong surveillance system enables early detection, rapid response and continued protection of FMD-free zone without vaccination.

1 CLINICAL SURVEILLANCE

Ongoing active inspections and passive reporting by farmers and veterinary staff.



ACTIVE INSPECTIONS

- ✓ Routine farm visits
- ✓ Market monitoring
- ✓ Abattoir inspections
- ✓ Border & road surveillance



PASSIVE REPORTING

- ✓ Farmers and industry report any suspect cases immediately.
- ✓ Veterinary staff investigate and take appropriate action.



Early detection saves lives and protects our livestock industry.

2 SEROLOGICAL SURVEYS

Annual stratified sampling with a 95% confidence level.



STRATIFIED SAMPLING

Farms and herds are selected based on risk factors (species, location, production system).



LABORATORY TESTING

Samples are tested using NSP-ELISA to detect FMD virus exposure.



SCIENTIFIC CONFIDENCE

Surveys are designed to achieve a 95% confidence level, ensuring reliable detection if present.



Science-based surveillance for a safe and secure zone.

3 RECENT PERFORMANCE

Strong results that reaffirm our FMD-free status.

2025 SURVEILLANCE RESULT

7000

SAMPLES TESTED



0 POSITIVE

FMD RESULTS



Healthy animals. Safe trade.
Stronger livelihoods.

EFFECTIVE SURVEILLANCE. STRONGER PROTECTION.



Reduces risk of FMD introduction



Ensures early detection



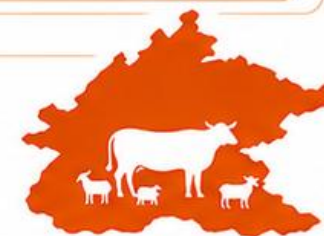
Supports science-based decision making



Facilitates safe trade with FMD-free partners



Protects livestock health and livelihoods





ANIMAL MOVEMENT CONTROL

Inter-District Control: Mandatory Sijil Pergerakan Ternakan (Movement Permit) and health inspections prior to any transport.

Import Restrictions: Entry is limited to live animals and meat from officially recognized FMD-free countries (primarily Australia and New Zealand)

Enforcement: Roadside checks and border patrols conducted by the DVS Enforcement Unit in collaboration with state security agencies.

APPLICATION OF ZONING IN PRACTICE

ANIMAL MOVEMENT CONTROL



Strict control of animal and animal product movement is essential to maintain FMD-free status.

1 INTER-DISTRICT CONTROL

Mandatory Sijil Pergerakan Ternakan (Movement Permit) and health inspections prior to any transport.



1. MOVEMENT PERMIT
Application for Sijil Pergerakan Ternakan



2. HEALTH INSPECTION
Veterinary officer inspects animals and verifies health status



3. APPROVED TRANSPORT
Animals may only be transported with a valid movement permit

REQUIREMENTS

- ✓ Valid Movement Permit
- ✓ Animals clinically healthy
- ✓ From premises free from notifiable diseases
- ✓ Compliance with biosecurity measures



SIJIL PERGERAKAN TERNAKAN
(MOVEMENT PERMIT)



Helps prevent the spread of FMD and other diseases within the country.

2 IMPORT RESTRICTIONS

Entry is limited to live animals and meat from officially recognized FMD-free countries (primarily: Australia and New Zealand).



IMPORT CONDITIONS

- ✓ From WOAH-recognised FMD-free countries
- ✓ Accompanied by official veterinary certification
- ✓ Complies with import requirements
- ✓ Subject to approval by Department of Veterinary Services (DVS)



Only safe, low-risk animals and animal products are allowed into the country.

3 ENFORCEMENT

Roadside checks and border patrols conducted by the DVS Enforcement Unit in collaboration with state security agencies.



ENFORCEMENT ACTIVITIES



Roadside checks



Border patrols



Verification of permits & health documents



Seizure and actions on non-compliance



Strong enforcement ensures compliance and deters illegal movement of animals and animal products.



Protects FMD-free status



Supports animal health



Safeguards livelihoods



Strengthens national biosecurity



ANIMAL IDENTIFICATION AND TRACEABILITY



Method: Exclusively utilizes Ear Tags for cattle, buffalo, goats, sheep, and pigs.



Identification: Each tag contains a unique number linked to the animal's farm of origin and health history



System: Operates on a manual documentation framework, supported by administrative registration of all herds and flocks with DVS

APPLICATION OF ZONING IN PRACTICE

ANIMAL IDENTIFICATION AND TRACEABILITY



Reliable animal identification and traceability are key to effective disease control, rapid response and maintaining FMD-free status.



1 METHOD: EAR TAGS

Uses ear tags for reliable identification of cattle, buffalo, goats, sheep and pigs.



CATTLE BUFFALO GOATS SHEEP PIGS



- ✓ Durable and tamper-resistant
- ✓ Unique identification for each animal
- ✓ Visible and easy to read
- ✓ Applied by trained veterinary officers

2 IDENTIFICATION: UNIQUE AND LINKED

Each ear tag contains a unique number linked to the animal's farm of origin and health history.



FARM OF ORIGIN

Linked to the registered premises in DAVETSA (DVS system).



HEALTH HISTORY

Vaccination, disease tests and treatments



MOVEMENT HISTORY

Movement permits, dates and destinations



Enables animal traceability from farm to market and back.

3 SYSTEM: MANUAL AND ADMINISTRATIVE

Operates on a manual documentation framework, supported by administrative registration of all premises in the DVS system – DAVETSA (primarily implemented in Sabah).



1. PREMISES REGISTRATION
DVS Sabah registers premises (farms) in DAVETSA.



2. TAGGING
Animals are tagged with unique ear tags.



3. RECORD KEEPING
Manual records maintained at farm and submitted to DVS.



4. DATABASE
DVS maintains premises and animal data in DAVETSA.

MANUAL DOCUMENTATION INCLUDES



Animal inventory records



Movement permits



Health and treatment records



Mortality and disposal records



Other relevant information

**GOOD IDENTIFICATION.
STRONG TRACEABILITY.
BETTER BIOSECURITY.**



Supports rapid disease response and control



Enhances surveillance and risk-based decision making



Facilitates safe trade and market access



Protects animal health, livelihoods and food security



**ONE ANIMAL.
ONE TAG.
ONE RECORD.**

Building a traceable and disease-free zoiah.



Farmer cooperation is key



DVS commitment to animal health



Together for a FMD-free future

DVS

DEPARTMENT OF VETERINARY SERVICES



BIOSECURITY AND MARKET OVERSIGHT



Farm Level: Fencing, closed-house systems, and visitor restrictions protect commercial populations.



Swill Management: Advice for farmers to boil swill for at least 45 minutes to destroy potential pathogens.



Marketing Nodes: Supervised slaughter at licensed abattoirs with mandatory antemortem inspections.

APPLICATION OF ZONING IN PRACTICE

BIOSECURITY AND MARKET OVERSIGHT – SLAUGHTERING ACTIVITIES



Slaughtering in the FMD-free zone is strictly regulated in both permanent licensed facilities and designated temporary sites during religious events, with strong oversight to ensure food safety, disease surveillance and biosecurity.

1 LICENSED ABATTOIRS AND SLAUGHTERHOUSES

There are 14 licensed slaughtering premises in the country that form the backbone of regulated meat processing.

SABAH

PUBLIC SLAUGHTERHOUSES

9 facilities operated by Department of Veterinary Services (DVS) Sabah



PRIVATE ABATTOIRS

5 certified private facilities



SPECIES BREAKDOWN

Type	Swine	Ruminant	Small Ruminant
Public	3	5	1
Private	2	2	1

SARAWAK SLAUGHTERHOUSES

2 PRIVATE SLAUGHTERHOUSES FOR SWINE

2 PRIVATE SLAUGHTERHOUSES FOR RUMINANT (cattle, buffalo, goats, sheep)



These facilities are concentrated in major districts including Kota Kinabalu, Keningau, Sandakan, Tawau, Kudat, Lahad Datu, Beaufort, and Semporna.

4 CONTROLS DURING FMD OUTBREAKS



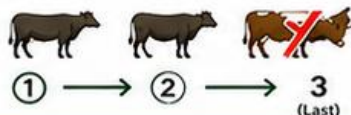
SUPERVISED SLAUGHTER

Slaughter is only permitted at licensed facilities under direct DVS supervision.



PRIORITIZATION

Infected animals must be slaughtered last to prevent cross-contamination.



PRODUCT RESTRICTIONS

Meat from these zones is generally restricted to the same area unless it undergoes specific processing, such as being deboned, denoted, and matured to a pH level below 6.



WASTE MANAGEMENT

Slaughterhouse waste during an outbreak must be disposed of via burning or burial, followed by thorough cleaning and disinfection of the facility.



These measures reduce the risk of disease spread and protect animal and public health during outbreaks.



SLAUGHTERHOUSES IN SARAWAK

PRIVATE SLAUGHTERHOUSES FOR SWINE

• 2 private slaughterhouses for swine

PRIVATE SLAUGHTERHOUSES FOR RUMINANT

• 2 private slaughterhouses for ruminant (cattle, buffalo, goats, sheep)

All slaughterhouses are registered and supervised by the Veterinary Services Department Sarawak.



**SAFE SLAUGHTERING.
SAFE FOOD.
STRONG BIOSECURITY.**



Licensed facilities and approved procedures



Veterinary supervision and inspection



Surveillance and disease monitoring



Community cooperation and responsible practices



Protecting Sabah's FMD-free status and food safety.

APPLICATION OF ZONING IN PRACTICE

BIOSECURITY AND MARKET OVERSIGHT – SLAUGHTERING ACTIVITIES



Slaughtering in the FMD-free zone is strictly regulated in both permanent licensed facilities and designated temporary sites during religious events, with strong oversight to ensure food safety, disease surveillance and biosecurity.

1 LICENSED ABATTOIRS AND SLAUGHTERHOUSES

There are 14 licensed slaughtering premises in the country that form the backbone of regulated meat processing.

SABAH PUBLIC SLAUGHTERHOUSES

9 facilities operated by Department of Veterinary Services (DVS) Sabah



PRIVATE ABATTOIRS

5 certified private facilities



SPECIES BREAKDOWN

Type	Swine	Ruminant	Small Ruminant
Public	3	5	1
Private	2	2	1

SARAWAK SLAUGHTERHOUSES

2 PRIVATE SLAUGHTERHOUSES FOR SWINE



2 PRIVATE SLAUGHTERHOUSES FOR RUMINANT (cattle, buffalo, goats, sheep)



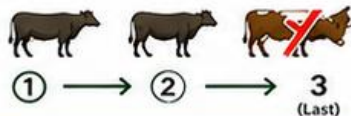
These facilities are concentrated in major districts including Kota Kinabalu, Keningau, Sandakan, Tawau, Kudat, Lahad Datu, Beaufort, and Semporna.

4 CONTROLS DURING FMD OUTBREAKS

SUPERVISED SLAUGHTER
Slaughter is only permitted at licensed facilities under direct DVS supervision.



PRIORITIZATION
Infected animals must be slaughtered last to prevent cross-contamination.



**SAFE SLAUGHTERING.
SAFE FOOD.
STRONG BIOSECURITY.**



Licensed facilities and approved procedures



supervision and inspection



surveillance and disease monitoring



Community cooperation and responsible practices



Protecting Sabah's FMD-free status and food safety.

2 SLAUGHTERING AT "OTHER PLACES"



STANDARD PROSEDUR KERJA PENGECHALIAN LESEN RUMAH SEMBELIH BAGI TUJUAN KEAGAMAAN

Prosedur ini khas dibuat untuk pengecualian lesen rumah sembelih di luar rumah sembelih yang berdaftar dengan Jabatan Perkhidmatan Veterinar Sarawak untuk tujuan keagamaan seperti ibadah Hari Raya Aidiladha dan Aikah di bawah Seksyen 60(4), Ordinan Kesihatan Awam Veterinar 1999. (sila rujuk Carta Alir Pengecualian Rumah Sembelih)

Prosedur:

- Pejabat Perkhidmatan Veterinar Bahagian menerima permohonan daripada pemohon untuk pengecualian lesen rumah sembelih bagi tujuan keagamaan.
 - Ketua Perkhidmatan Veterinar Bahagian atau wakil hendaklah buat pengesahan permohonan berkenaan adalah untuk tujuan keagamaan dengan menemuduga secara ringkas pemohon berkenaan (sekiranya berkesempatan) dan melalui dokumen sokongan yang disertakan.
 - Permohonan hendaklah dihantar sekurang-kurangnya seminggu sebelum tarikh penyembelihan dan disertakan salinan dokumen sokongan yang diakui sah untuk mengesahkan aktiviti penyembelihan untuk tujuan keagamaan
- Sekiranya Ketua Perkhidmatan Veterinar Bahagian atau wakil berpuas hati dengan permohonan, Ketua Perkhidmatan Veterinar Bahagian hendaklah mengeluarkan surat pengecualian lesen rumah sembelih. Sekiranya Ketua Perkhidmatan Veterinar Bahagian atau wakil tidak berpuas hati dengan permohonan, permohonan dapat ditolak dan Ketua Perkhidmatan Veterinar Bahagian hendaklah mengeluarkan surat permohonan tidak berjaya.
- Laporan mengenai pengeluaran surat pengecualian lesen rumah sembelih hendaklah dihantar kepada Penguasa Veterinar Negeri setiap 10hb pada bulan berikutnya (sekiranya ada surat pengecualian lesen rumah sembelih dikeluarkan) menggunakan format di Lampiran A.

Arahan:

Penguasa Veterinar Negeri
Jabatan Perkhidmatan Veterinar Sarawak
8 Jun 2022

3 REGULATORY OVERSIGHT AND PROCEDURES



MANDATORY LICENSING

Under the Slaughterhouses Rules 2003, slaughtering must be conducted exclusively in licensed or officially approved facilities under the supervision of authorized veterinary personnel.



SYSTEMATIC INSPECTIONS

The Meat Inspection Rules 2003 mandate both ante-mortem and post-mortem inspections. Animals are held in lairage for these checks before slaughter.



EPIDEMIOLOGICAL MONITORING

These inspections serve as a surveillance tool, providing data on animal diseases and zoonoses (such as tuberculosis and brucellosis) which is shared with public health authorities.



HYGIENE STANDARDS

Facilities must adhere to the Veterinary Inspection Legend (VIL) program, which enforces Good Manufacturing Practices (GMP). For export eligibility, they must obtain the Veterinary Health Mark (VHM).



**VETERINARY
INSPECTION LEGEND
(GMP)**



**VETERINARY
HEALTH MARK**



These measures reduce the risk of disease spread and protect animal and public health during outbreaks.

an
f via
ction



SLAUGHTERHOUSES IN SARAWAK

PRIVATE SLAUGHTERHOUSES FOR SWINE



- 2 private slaughterhouses for swine

PRIVATE SLAUGHTERHOUSES FOR RUMINANT



- 2 private slaughterhouses for ruminant (cattle, buffalo, goats, sheep)

All slaughterhouses are registered and supervised by the Veterinary Services Department Sarawak.



LABORATORY INFRASTRUCTURE



Primary Screening: Veterinary Diagnostic Laboratory Kota Kinabalu in Sabah and Sarawak Veterinary Diagnostic Laboratory in Sarawak



Test Methods: Utilizes NSP-ELISA for antibody screening and nested RT-PCR for molecular detection.



Confirmatory Testing: Any seropositive results are sent to the National Reference Laboratory (Kota Bharu) for the Virus Neutralization Test (VNT).

APPLICATION OF ZONING IN PRACTICE

LABORATORY INFRASTRUCTURE



Reliable laboratory diagnostics are essential for early detection, accurate surveillance and maintaining FMD-free status.

1 PRIMARY SCREENING

IN SABAH

**Veterinary Diagnostic Laboratory
Kota Kinabalu (MDVKK)**
Accredited to MS ISO/IEC 17025



IN SARAWAK

**Sarawak Veterinary
Diagnostic Laboratory (SVDL)**



Main diagnostic laboratories for FMD surveillance and investigation.



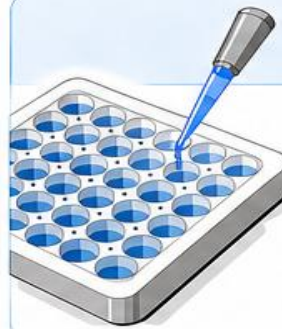
Primary point for all FMD sample screening in their respective zones.



Laboratories operate in accordance with ISO/IEC 17025 requirements.

2 TEST METHODS

Tests are performed using validated and internationally accepted methods.



NSP-ELISA (Antibody Screening)

- Detects antibodies against FMD non-structural proteins (NSP).
- Used for surveillance to identify animals exposed to FMD virus.
- High throughput, sensitive and reliable.



NESTED RT-PCR (Molecular Detection)

- Detects FMD viral RNA with high sensitivity and specificity.
- Confirms active infection in suspect samples.
- Gold standard for molecular diagnosis.



Both laboratories utilize NSP-ELISA for antibody screening and nested RT-PCR for molecular detection to ensure comprehensive and accurate FMD testing.

3 CONFIRMATORY TESTING

Any seropositive results are sent to the National Reference Laboratory (Kota Bharu) for confirmatory testing.

NATIONAL REFERENCE LABORATORY KOTA BHARU



VIRUS NEUTRALIZATION TEST (VNT)

- Seropositive samples are sent to the National Reference Laboratory (Kota Bharu).
- Confirmed using the Virus Neutralization Test (VNT), the internationally recognised confirmatory test for FMD.
- Provides definitive confirmation of FMD infection status.



Ensures accuracy and integrity of FMD surveillance and diagnostic results.



Strong laboratory infrastructure and internationally recognized testing ensure early detection, accurate surveillance and sustainable maintenance of FMD-free status.

APPLICATION OF ZONING IN PRACTICE

LABORATORY INFRASTRUCTURE



Reliable laboratory diagnostics are essential for early detection, accurate surveillance and maintaining FMD-free status.

1 PRIMARY SCREENING

IN SABAH

**Veterinary Diagnostic Laboratory
Kota Kinabalu (MDVKK)**
Accredited to MS ISO/IEC 17025



IN SARAWAK

**Sarawak Veterinary
Diagnostic Laboratory (SVDL)**



- Main diagnostic laboratories for FMD surveillance and investigation.
- Primary point for all FMD sample screening in their respective zones.
- Laboratories operate in accordance with ISO/IEC 17025 requirements.

2 TEST METHODS

 SARAWAK VETERINARY DIAGNOSTIC LABORATORY	SVDL CONTINGENCY PLAN	Document No	: DVSS/SVDL/G002
		Issue No	: 1
		Revision No	:
		Revision Date	:
	FOOT AND MOUTH DISEASE	Page No	: 1
		Issued by	: VOIC

This document describes the Contingency Plan for Foot-and-Mouth Disease (FMD) at Sarawak Veterinary Diagnostic Laboratory (SVDL) to ensure effective FMD testing during outbreaks/sample surges.

1.0 Purpose and Scope

To maintain diagnostic capabilities, minimize disruptions, and manage increased sample volume.

2.0 Key Stakeholders

Laboratory staff, Divisional staff and DVSS HQ.

3.0 Outbreak Scenarios and Risk Assessment

Identify potential FMD outbreak scenarios and assess the potential impact on laboratory resources and personnel:

- Potential outbreak: FMD outbreak will increase the number of samples to be tested at SVDL.
- Impact on laboratory:
 - Resources: Extra reagents, test kits and equipment will be needed for testing.
 - Personnel: Extra personnel will be required to test the sample surge.

4.0 Capacity Assessment

Evaluate current laboratory capacity and identify limitations.

- Current laboratory capacity:
 - Currently, SVDL has two (2) dedicated personnel for FMD NSP ELISA testing and two (2) dedicated personnel for FMD PCR testing.
- Limitations:
 - Delay of sample testing might occur in the event of FMD outbreaks/sample surges
 - NSP ELISA testing is conducted manually.

5.0 Surge Capacity Planning and Additional Resources

Identify requirements for personnel, diagnostic equipment, and reagents.

- Training:
 - In the event of an outbreak/sample surge, extra/trained laboratory personnel from other laboratory sections are available to assist in the NSP ELISA test and FMD PCR test.
- Diagnostic equipment:
 - In the event of an outbreak/sample surge, the availability of automated machines will increase the capacity of the testing.
 - o High-throughput sample homogeniser (1 unit)
 - o Automated DNA extraction machines (2 units)

3 CONFIRMATORY TESTING

Any seropositive results are sent to the National Reference Laboratory (Kota Bharu) for confirmatory testing.

NATIONAL REFERENCE LABORATORY KOTA BHARU



VIRUS NEUTRALIZATION TEST (VNT)

- Seropositive samples are sent to the National Reference Laboratory (Kota Bharu).
- Confirmed using the Virus Neutralization Test (VNT), the internationally recognised confirmatory test for FMD.
- Provides definitive confirmation of FMD infection status.



Ensures accuracy and integrity of FMD surveillance and diagnostic results.



Strong laboratory infrastructure and internationally recognized testing ensure early detection, accurate surveillance and sustainable maintenance of FMD-free status.



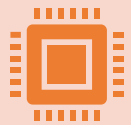
EMERGENCY PREPAREDNESS AND RESPONSE



Framework: Guided by the FMD Management and Guidelines Policy



Rapid Action Team (RAT): Utilizes NSP-ELISA for antibody screening and nested RT-PCR for molecular detection.



Simulation Exercises: Regular tabletop and field simulations (e.g., Tawau 2022 and 2024) to test coordination and response readiness

APPLICATION OF ZONING IN PRACTICE

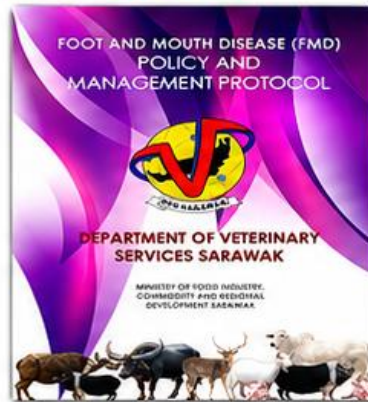
EMERGENCY PREPAREDNESS AND RESPONSE



A proactive, well-coordinated and tested response system ensures rapid detection, effective control and protection of FMD-free status.

1 FRAMEWORK

Guided by the **FMD Management and Guidelines Policy (2022)**



Provides a clear framework for preparedness, response and recovery.



Defines roles, responsibilities and coordination mechanisms.



Aligned with national regulations and international standards (WOAH).



A strong policy foundation for effective FMD control and emergency response.

2 RAPID ACTION TEAM (RAT)

Activated immediately for field investigation of suspected cases.



RAT FUNCTIONS



Rapid investigation and case verification



Sample collection and submission



On-site risk assessment and control measures



Immediate reporting and communication



Coordination with relevant agencies



Trained personnel. Rapid deployment. Swift action. Effective containment.

3 SIMULATION EXERCISES

Regular tabletop and field simulations to test coordination and response readiness.

TAWAU 2022



TABLETOP EXERCISE

Tested planning, decision-making and inter-agency coordination.

TAWAU 2024



FIELD SIMULATION

Evaluated operational readiness, response procedures and resource deployment.



Learning from simulation. Strengthening readiness. Saving livelihoods.

KEY BENEFITS



Ensures rapid detection and response.



Minimises the spread of FMD and the economic impact.



Strengthens coordination among DVS, agencies and stakeholders.



Builds capacity and confidence of responders.



Protects FMD-free status and supports trade.



PREPARED TODAY, PROTECTED TOMORROW.

TOGETHER, WE DEFEND FMD-FREE STATUS.

DVS

DEPARTMENT OF
VETERINARY SERVICES



USE OF TECHNOLOGY SYSTEMS

IT Management: EXIM Davetsa 2.0 and eVet Permit manage digital permits and provide supply chain traceability

Reporting Tools: MADIC (Malaysian Animal Disease Information Centre) used for early notification (Epis 01) and investigation reporting.

Analytical Tools: Epitools calculator used for scientific sample size determination for surveillance



APPLICATION OF ZONING IN PRACTICE

USE OF TECHNOLOGY AND SYSTEMS

The Department of Veterinary Services (DVS) utilizes a variety of digital platforms, analytical tools, and advanced diagnostic technologies to maintain its FMD-free status and ensure the safety of animal product trade.

1 INFORMATION AND REPORTING SYSTEMS

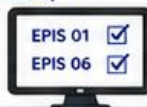
Interconnected digital systems for real-time monitoring, official reporting and trade assurance.



MADIC

Malaysian Animal Disease Information Centre (MADIC)

- National system for disease notifications.
- Epis 01:** Early notification of suspected cases.
- Epis 06:** Complete investigative reports after confirmation.



EXIM DAVETSA 2.0

EXIM DAVetsa 2.0

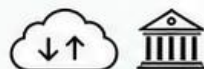
- Portal for managing import and export permits.
- Authorizes trade only from establishments with recognized quality programs.
- Provides full forward and backward traceability across the supply chain.



eVet PERMIT

eVet Permit System

- Integrated with EXIM 2.0 for seamless federal-state data exchange between DVS Malaysia and DVS Sabah.



WAHIS OMSA • WOA

WAHIS (World Animal Health Information System)

- Used for submitting weekly case reports and maintaining international transparency.



4 ADVANCED LABORATORY TECHNOLOGY

Accredited laboratory infrastructure with advanced diagnostic technologies ensures accurate and reliable testing.



Serology

NSP-ELISA (Non-Structural Protein) test is the primary screening tool to detect evidence of FMD infection in unvaccinated populations.



Molecular Testing

MDVKK utilizes nested RT-PCR, real-time RT-PCR, and endpoint RT-PCR. Nested RT-PCR was specifically chosen for its high diagnostic specificity, ideal for confirming freedom in an FMD-free population.



Confirmatory Tests

Seropositive results are verified using the Virus Neutralization Test (VNT) at the National Reference Laboratory.



Veterinary Diagnostic Laboratory Kota Kinabalu (MDVKK)
Accredited to MS ISO/IEC 17025

2 EPIDEMIOLOGICAL AND ANALYTICAL TOOLS

Specialized tools ensure surveillance is scientifically robust and targeted.

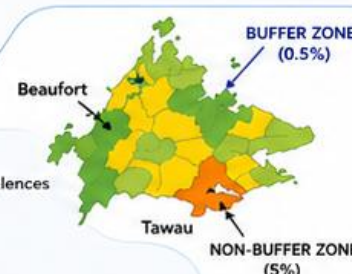
EpiTools Epidemiological Calculator

- Online tool used to calculate precise sample sizes for annual serological and clinical surveillance.



Stratified Sampling Design

- Tools allow setting of specific design prevalences (e.g., 0.5% for buffer zones vs. 5% for non-buffer zones).
- Helps prioritize high-risk areas such as Tawau and Beaufort.



3 MAPPING AND VISUALIZATION

Digitized, geo-referenced maps to visualize risk, livestock distribution and zone boundaries.

Gradient Heatmaps

- Illustrate livestock and wildlife population densities.
- Identify interface areas between domestic animals and wildlife (e.g., Bornean banteng, bearded pigs).



Delineation of Zones

- Precisely define zone boundaries.
- Include natural barriers and land border checkpoints.

- Zone Boundary
- ▲ Natural Barrier
- 📍 Border Checkpoint



5 COMMUNICATION TECHNOLOGY

Rapid communication and shared platforms for real-time coordination and verification.



Instant Messaging

Secured WhatsApp and Telegram groups used for "rapid alerts" among border officers and central authorities to report illegal imports or sanitary emergencies immediately.



Shared Databases

Shared access to EXIM 2.0 allows different border posts to verify permits and movement certificates consistently.



6 IDENTIFICATION TECHNOLOGY

Physical identification methods support traceability within a largely manual documentation system.



Ear Tags (Primary Method)

Ear tags are the most common method of identification for all livestock species in Sabah.



Unique Numbering

Every identification marker is linked to a unique number within the DVS administrative records to ensure herd-level and individual traceability.

Animal Record			
Tag No:	12345	Sex:	Female
Species:	Bovine	Breed:	Brahman
Farm:	Seri Majo	Date of Birth:	12/03/2020
District:	Tawau	Owner:	Ahmad Bin Ali

BENEFITS OF TECHNOLOGY AND SYSTEMS



Early detection and rapid response



End-to-end traceability and trade assurance



Data-driven decision making and risk prioritization



Stronger coordination across agencies and border points



Maintaining Sabah's FMD-free status and protecting animal trade

DVS DEPARTMENT OF VETERINARY SERVICES SABAH



APPLICATION OF ZONING IN PRACTICE

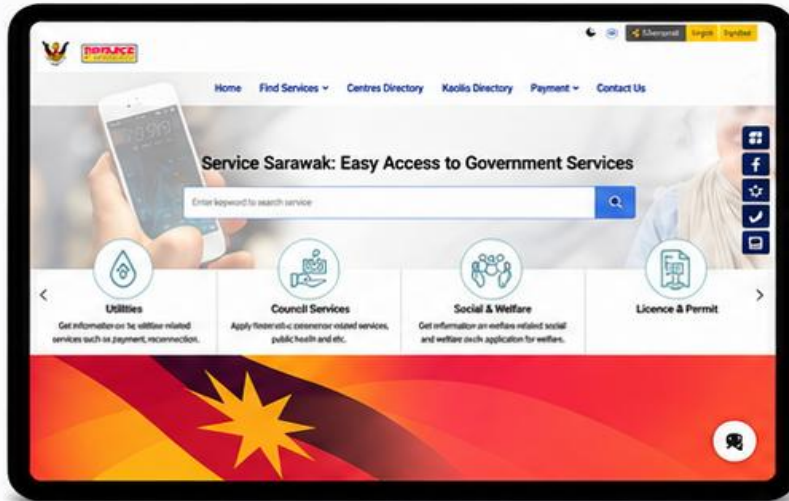
USE OF TECHNOLOGY AND SYSTEMS IN SARAWAK



Sarawak leverages digital platforms, integrated systems and advanced technologies to support zoning, surveillance, traceability and efficient service delivery.

1 INFORMATION AND SERVICES PORTAL

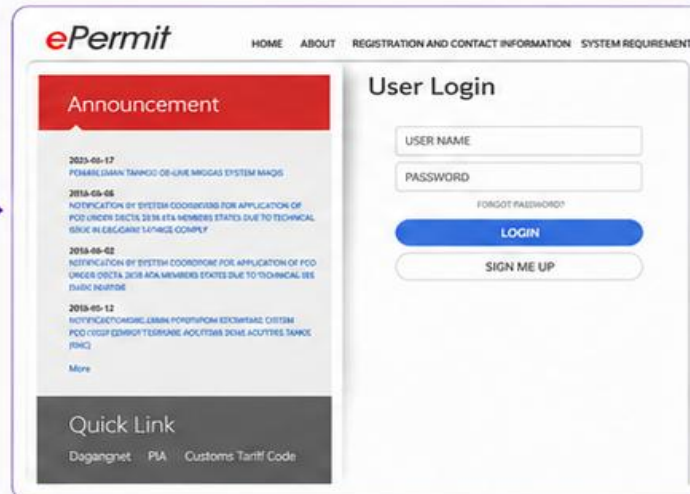
Central access point for farmers, stakeholders and the public to obtain information and apply for services online.



URL: <https://www.sarawak.gov.my>

2 ePERMIT SYSTEM

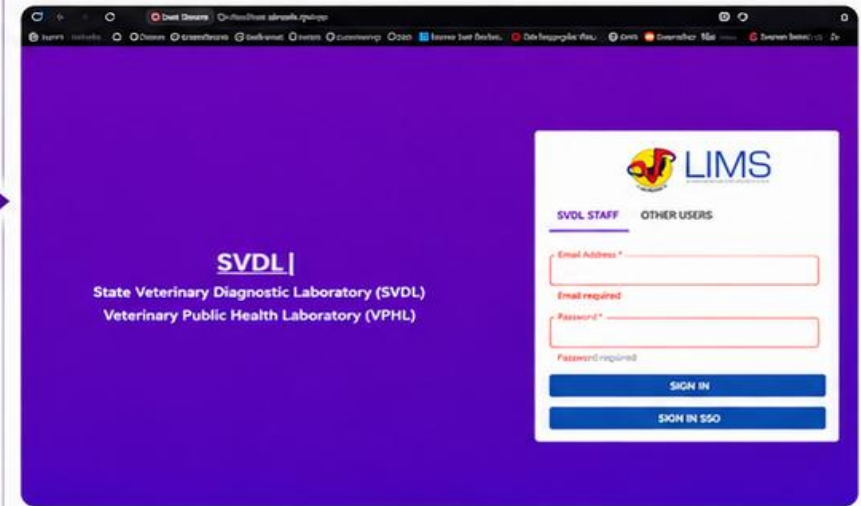
Online application and management of import/export permits for animals and animal products.



URL: <https://epermit.dagangnet.com.my>

3 LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)

Digital system for laboratory operations, data management and reporting to support rapid decision-making.



URL: <http://svdlam.sarawak.gov.my:9091>

HOW TECHNOLOGY SUPPORTS ZONING IN SARAWAK



EARLY DETECTION AND RAPID RESPONSE
Real-time data and reporting enable quicker identification of disease risks.



END-TO-END TRACEABILITY
Trace movement of animals and products to support zoning and control measures.



DATA-DRIVEN DECISION MAKING
Analytics and surveillance tools inform risk assessment and zoning decisions.



STRONGER COORDINATION ACROSS AGENCIES
Integrated systems facilitate information sharing among stakeholders.



MAINTAINING SARAWAK'S FMD-FREE STATUS
Technology and systems strengthen biosecurity and protect animal product trade.



SMART TECHNOLOGY. STRONGER BIOSECURITY. SUSTAINABLE LIVELIHOODS.

DVS DEPARTMENT OF VETERINARY SERVICES SARAWAK



STAKEHOLDER ENGAGEMENT (PUBLIC-PRIVATE SECTOR)



Frontline Observers: Engagement with smallholders through village meetings and "meet-the-client" days



Industry Collaboration: Commercial producers maintain strict on-farm records and biosecurity protocols



Capacity Building: Continuous professional development for veterinarians and paraprofessionals.

APPLICATION OF ZONING IN PRACTICE



STAKEHOLDER ENGAGEMENT (PUBLIC-PRIVATE SECTOR)

A whole-of-community, multi-stakeholder approach coordinated by the Department of Veterinary Services (DVS) to ensure early detection, responsive surveillance and sustained FMD-free status.

1

ENGAGEMENT WITH PRODUCERS AND FARMERS

Differentiated engagement for different production systems and farming communities.



SMALLHOLDERS & SUBSISTENCE FARMERS

- Frontline observers in rural and interior areas.
- Regular village meetings, awareness campaigns and "Meet-the-client" days.
- Educate on disease recognition and the need for immediate reporting.



COMMERCIAL PRODUCERS

- Active partners in surveillance and disease control.
- Implement on-farm biosecurity and maintain detailed animal health records.
- Swine sector: cooperatives formed to enhance disease monitoring and supply chain management.



INTEGRATED PRODUCTION SYSTEMS

- Cattle production on the east coast is integrated with oil palm plantations.
- Facilitates organized herd management and effective disease monitoring.



2

ROLE OF VETERINARY PARAPROFESSIONALS AND NGOS

VETERINARY PARAPROFESSIONALS



- Integral to the surveillance network in remote and hard-to-reach areas.
- Assist in farm visits, sample collection and reporting clinical signs.
- Proximity to local livestock keepers fosters trust and improves monitoring efficiency.



NGOS & COMMUNITY ORGANIZATIONS

- Contribute to grassroots engagement and public awareness.
- DVS collaborates with NGOs such as SPCA Kinarut and Monfort Youth Training Centre.
- Support safe distribution of non-FMD risk commodities (e.g., daig, eggs) from confiscated products under veterinary supervision.



3

COMMUNICATION AND TRANSPARENCY MECHANISMS

Multiple channels ensure timely information sharing, transparency and trust.



RAPID REPORTING TOOLS

Farmers and field staff use WhatsApp hotlines and community focal persons for near-instant communication.



REGULAR COORDINATION MEETINGS

DVS holds scheduled meetings with farmers, industry representatives and local authorities to discuss regulatory updates and disease control.



INFORMATION DISSEMINATION

Digital platforms, social media and physical materials (posters, circulars) are used to widely broadcast policy changes, disease alerts and control measures.



4

COLLABORATIVE READINESS AND TRAINING

Stakeholders are actively involved in building capacity and strengthening readiness.



SIMULATION EXERCISES

- DVS involves the private sector in readiness drills.
- 2022 Tawau simulation included smallholder goat farmers.
- 2024 exercise conducted in collaboration with an integrated cattle farm.



TECHNICAL SUPPORT & TRAINING

DVS provides continuous training and technical assistance to farmers, industry, paraprofessionals and other stakeholders to ensure a cohesive and effective response network.



FEEDBACK LOOPS

In compliance with MS ISO 9001:2015, DVS conducts an annual customer feedback survey to evaluate satisfaction and identify areas for improvement in our partnership with the private sector.



TOGETHER WITH OUR STAKEHOLDERS



Farmers & Smallholders
Frontline observers and key partners in early detection



Commercial Industry
Implement biosecurity and support surveillance programmes



Paraprofessionals
Extend DVS reach to remote areas and strengthen surveillance



NGOs & Community Groups
Support engagement, awareness and safe community practices



Local Authorities
Collaborate in coordination, enforcement and emergency response



Together, we protect
animal health, livelihoods and Sabah's FMD-free status



**STRONG PARTNERSHIPS,
STRONGER PROTECTION**



**Early detection and
rapid response**



**Strengthened
biosecurity and
compliance**



**Resilient livestock
industries and
supply chains**



**Informed communities
and empowered
stakeholders**



**Sustained FMD-free
status for Sabah**



FACILITATING SAFE TRADE



Export Markets: Facilitates the safe movement of live animals and meat/meat products.



Official Assurance: The Veterinary Health Mark (VHM) provides certified assurance of biosecurity and food safety standards for exported products



Supply Chain Integrity: Traceability managed via the digital portal to ensure only "safe commodities" enter trade routes.



APPLICATION OF ZONING IN PRACTICE

Sabah leverages its WOAH-recognized FMD-free status without vaccination to enable safe trade, protect public health and support the livestock industry through strong assurances, digital traceability and rigorous import vetting.

WOAH RECOGNIZED
FMD-FREE ZONE
WITHOUT VACCINATION
SINCE 2004

1 OFFICIAL ASSURANCE AND CERTIFICATION

Establishes confidence of trading partners through stringent certification frameworks.



VETERINARY HEALTH MARK (VHM)

- Signifies establishment compliance with national and international requirements for veterinary public health, food safety and biosecurity.
- Prerequisite for export certification.



VETERINARY HEALTH CERTIFICATES (VHC)

- Official sanitary assurance for all trade in animals and animal products issued by the Department of Veterinary Services (DVS) Sabah.



VETERINARY INSPECTION LEGEND (VIL)

- Ensures processing facilities comply with Good Manufacturing Practices (GMP) and the Food Act 1983.



These certifications ensure high standards of biosecurity, food safety and animal health for safe trade.

2 DIGITAL TRACEABILITY AND TRADE PORTALS

Integrated digital systems ensure only "safe commodities" enter trade routes with full chain traceability.



EXIM DAVETSA 2.0

- Primary platform for managing import and export permits.
- Authorizes trade only for establishments with recognized quality assurance programs such as HACCP or VHM.



FULL CHAIN TRACEABILITY

- Permit system and veterinary certification provide full forward and backward traceability across the entire supply chain.
- Enables rapid identification and containment if a safety issue is detected.



EVET PERMIT INTEGRATION

- Integration with the national eVet Permit 3.0 platform ensures seamless federal-state data exchange and harmonized enforcement across Malaysia.

TRACEABILITY ACROSS THE SUPPLY CHAIN



3 RIGOROUS IMPORT VETTING

A "two-way street" approach to ensure no pathogens enter the FMD-free zone.



STRATEGIC VETTING

- All import applications are reviewed by a Risk Analysis Committee (RAC) and an Export and Import (EXIM) Committee.



AUTHORIZED ORIGINS

- Imports are limited to live animals and meat from officially FMD-free countries (Australia and New Zealand).
- Specific commodities from certified facilities, e.g., buffalo meat from India.



AUDITS AND VERIFICATION

Exporting establishments must be audited by DVS Sabah to verify compliance with local biosecurity and sanitary requirements.

4 INTERNAL AND INTER-REGIONAL TRADE EXPERIENCE

Sabah's strong trade track record demonstrates effective use of its FMD-free status.

MARKET ACCESS (24 MONTHS PRECEDING JULY 2025)



~600,000 kg
Frozen beef and beef products

Exported to
Sarawak, Labuan and Brunei



4,264 head
Live animals
(cattle, deer, sheep,
goats and buffalo)

Moved to
Sarawak, Labuan and West Malaysia

REGULATORY COMPLIANCE



- All movements facilitated by the Sijil Pergerakan Ternakan (Animal Movement Permit) system.
- Requires veterinary inspection and ensures traceability for every animal transported within or out of the state.

5 ENFORCEMENT AND CONFISCATION

Strong enforcement actions protect Sabah's FMD-free status.

CONFISCATED NON-COMPLIANT PRODUCTS (2023 - 2024)



>21,000 kg
Beef products



>16,000 kg
Pork products



Preventing the introduction of FMD and other transboundary diseases.



ACTIONS TAKEN

Subjected to court action under relevant laws.



Safe disposal via incineration or deep burial.

SAFE TRADE.
STRONGER SABAH.



Protects Sabah's
FMD-free status



Supports livestock
industry growth



Ensures food safety
and public health



Maintains market access
and trade opportunities



Builds confidence with
trading partners



Through assurance, technology, collaboration and enforcement, Sabah enables safe trade while protecting its livestock and livelihoods.



PRACTICAL CHALLENGES

Non-Digitized Traceability: Reliance on manual documentation for inter-district movement verification.

Technical Mapping: Gaps in comprehensive population estimates for some wildlife species (e.g., sambar and mouse deer).

Legislative Triggers: Strict emergency movement controls are primarily enforced under outbreak-specific sections of the Animal Enactment 2015.



APPLICATION OF ZONING IN PRACTICE PRACTICAL CHALLENGES

Several practical challenges affect the efficiency and robustness of surveillance, traceability and emergency response in maintaining Sabah's FMD-free status.

1

HUMAN AND FINANCIAL RESOURCE CONSTRAINTS



Limited manpower:
Sabah – 24 veterinary officers and 162 paraprofessionals serve the entire state.



Several veterinary positions are currently vacant.



Impacts consistent delivery of field operations, surveillance and oversight.

STATEWIDE COVERAGE



Large geography, limited resources

2

MANUAL TRACEABILITY AND DOCUMENTATION



Animal traceability still relies on manual documentation for inter-district movements.



Relies on physical issuance and verification of the *Sijil Pergerakan Ternakan* (Animal Certificate of Movement).



Makes real-time data analysis and rapid tracking more difficult compared to digitized systems.

PAPER-BASED PROCESS



- ✓ Movement verification by physical documents
- ✓ Manual record-keeping across districts

3

TECHNICAL GAPS IN WILDLIFE AND POPULATION MAPPING



No formal or comprehensive population estimates for sambar deer, mouse deer and Bornean yellow muntjac.



Serological surveys on wild boars were unsuccessful due to the severe impact of African Swine Fever (ASF) on their populations.



Limits risk assessment of the wildlife-livestock interface.

DATA GAPS



Sambar Deer



Mouse Deer



Bornean Yellow Muntjac

CONSEQUENCES

- Incomplete risk mapping
- Difficult to prioritise high-risk areas
- Challenges in targeted surveillance and resource allocation

4

LEGISLATIVE AND ERADICATION LIMITATIONS



No specific legislation dedicated to an active FMD eradication campaign, as Sabah & Sarawak has been FMD-free for over 25 years.



No stamping-out (culling) policy in place.



No provision for compensation to owners if animals are slaughtered for disease control.

IMPLICATIONS



Limits legal tools for rapid eradication if an outbreak occurs.



May affect stakeholder cooperation in extreme control measures.



Relies on movement control and surveillance as primary defence.

5

DIAGNOSTIC AND FIELD SAMPLING ISSUES



1. In Sabah while the laboratory is accredited to MS ISO/IEC 17025, specific tests for detecting FMD agent and its immune response are not yet officially accredited.



2. Sarawak is yet to be accredited to MS ISO/IEC 17025:2017.

IMPACT

- ✓ Limits confirmatory testing capacity
- ✓ May delay result confirmation and decision-making
- ✓ Extension of scope for accreditation is being pursued



6

BIOSECURITY AND COMMUNITY PRACTICES CHALLENGES



Swill feeding is common in small-scale and backyard piggery.



Farmers are advised to boil swill for 45 minutes, but consistent enforcement across rural areas is difficult.



No specific physical measures to restrict domestic or wild animals from accessing animal-origin waste products.



High-risk interface on Sebatik Island (shared with Indonesia) remains a constant challenge for illegal or informal cross-border movements.

CONSTANT RISKS



Introduction of FMD and other transboundary diseases



Difficult monitoring and enforcement in remote areas



Community awareness and compliance vary across areas



Smuggling and illegal trade persist

OVERALL IMPACT



Delays in detection and response



Increased risk of disease incursion and spread



Challenges in maintaining WOA-recognized FMD-free status without vaccination



Higher operational costs and resource demands

WAY FORWARD



Strengthen staffing and capacity building



Accelerate digital traceability and data integration



Enhance wildlife data collection and mapping



Review legal and policy frameworks



Promote community engagement and biosecurity practices



Addressing these challenges through innovation, collaboration and strong partnerships is essential to sustain Sabah's FMD-free status and protect animal health, public health and safe trade.



Protect Animal Health



Safeguard Public Health



Ensure Safe Trade



Strengthen Resilience

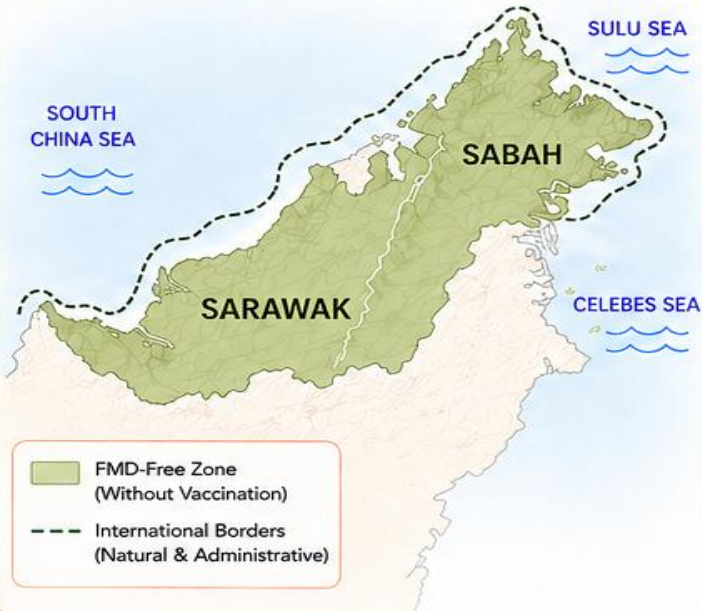
SUMMARY OF THE SABAH & SARAWAK FMD-FREE ZONE STATUS



Since **2004**, it has been officially recognized by the World Organisation for Animal Health (WOAH) as an FMD-free zone where **vaccination is strictly prohibited**.



This status is supported by the following key pillars:



1

ROBUST VETERINARY OVERSIGHT



The Department of Veterinary Services (DVS) operates under a comprehensive legal framework which provides the authority for disease surveillance, quarantine, and movement control.



Disease Surveillance



Quarantine



Movement Control

2

SCIENTIFIC SURVEILLANCE



The state conducts annual, risk-based serological and clinical surveys.



Risk-Based Approach



Serological Surveys



Clinical Surveys

3

STRICT PREVENTION AND BIOSECURITY



Prevention is achieved through rigorous import controls, limiting live animal and meat imports almost exclusively to officially FMD-free countries like Australia and New Zealand.



Rigorous Import Controls



Imports from Officially FMD-Free Countries (Australia & New Zealand)



Physical biosecurity, including fencing and closed-house systems, is used to separate domestic livestock from susceptible wildlife.

4

IDENTIFICATION AND TRACEABILITY



- While the internal system currently relies on manual documentation, all susceptible livestock are identified via ear tags linked to farm records.



- Inter-district movement is tightly regulated through mandatory Animal Certificates of Movement.

5

TRADE FACILITATION



Sabah leverages its free status to participate in safe trade, successfully moving over **4,200** live animals and nearly **600,000 kg** of meat products to Sarawak, Labuan, Brunei, and West Malaysia in the past 24 months.

6

SUSTAINED COMMITMENT, PROVEN RESULTS



- ✓ Strong governance and legal backing
- ✓ Science-based surveillance and risk management
- ✓ Continuous improvement in biosecurity and trade facilitation
- ✓ Protecting livestock health and supporting economic growth

PROVEN STATUS, REAL IMPACT



SINCE 2004

Officially recognised by WOAH as an FMD-free zone where vaccination is strictly prohibited.



4,200+

Live animals moved safely in the past 24 months



~600,000 kg

Meat products traded safely in the past 24 months



4 DESTINATIONS

Sarawak, Labuan, Brunei, and West Malaysia



**A SAFE ZONE
A STRONG FUTURE**

Protecting animal health. Enabling trade. Strengthening livelihoods.



SUMMARY AND CONCLUSION

Sustained Success: 22 years of official WOAHP recognition and 25+ years of clinical freedom.

Robust Framework: Success driven by a combination of natural geography, strict risk management, and multi-agency cooperation.

Commitment: Ongoing modernization and surveillance ensure Sabah & Sarawak remains a secure, trade-ready FMD-free zone.



Thank you

**Sub -regional training workshop on zoning and compartmentalisation
in the facilitation of safe trade**