

What do we need to know about Foot and Mouth Disease?

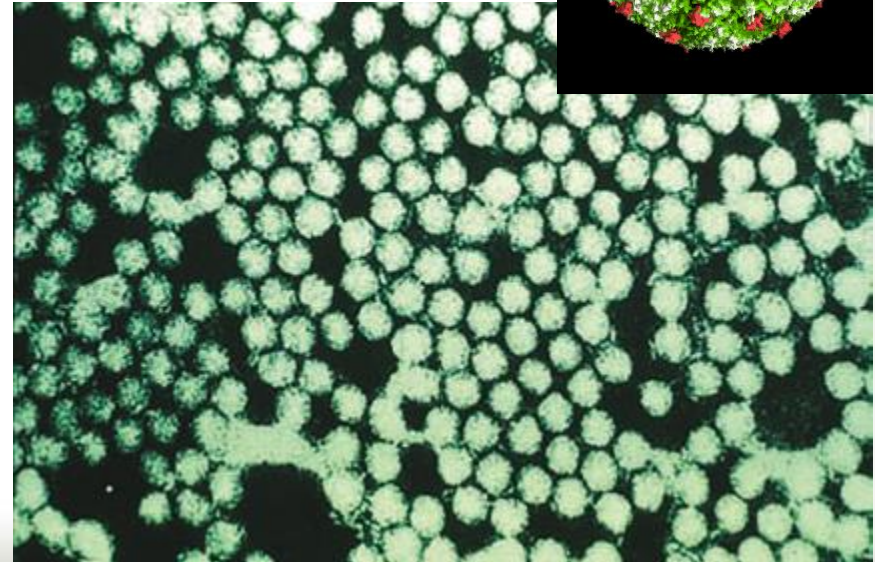
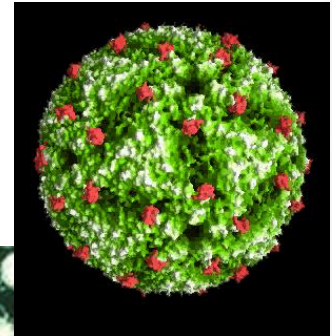
Dr Ronello Abila

OIE Sub-Regional Representative for SE Asia

- ❖ **What is FMD**
- ❖ **Global and Regional FMD Situation
and recent epidemiological
changes**
- ❖ **SEACFMD Campaign**

FMD

- The most infectious disease currently known to man
- Affects cloven-hooved animals – domestic and wild species



Global FMD

- Hugely important Global Threat to livelihoods and economies
 - Extreme economic/social/environmental impacts via severe productivity losses
 - disruptions in a wide range of agricultural, industrial and social activities
 - major threat to food supply/
food security



Global Status



- Most of Europe, North and Central America, Australia, New Zealand, and Maritime Southeast Asia considered FMD-free
 - 65 countries worldwide officially FMD-free without vaccination
 - 1 country officially FMD-free with vaccination
- Most parts of Southern Asia, Middle East, Africa, mainland Southeast Asia and some parts of South America are considered to have endemic FMD.

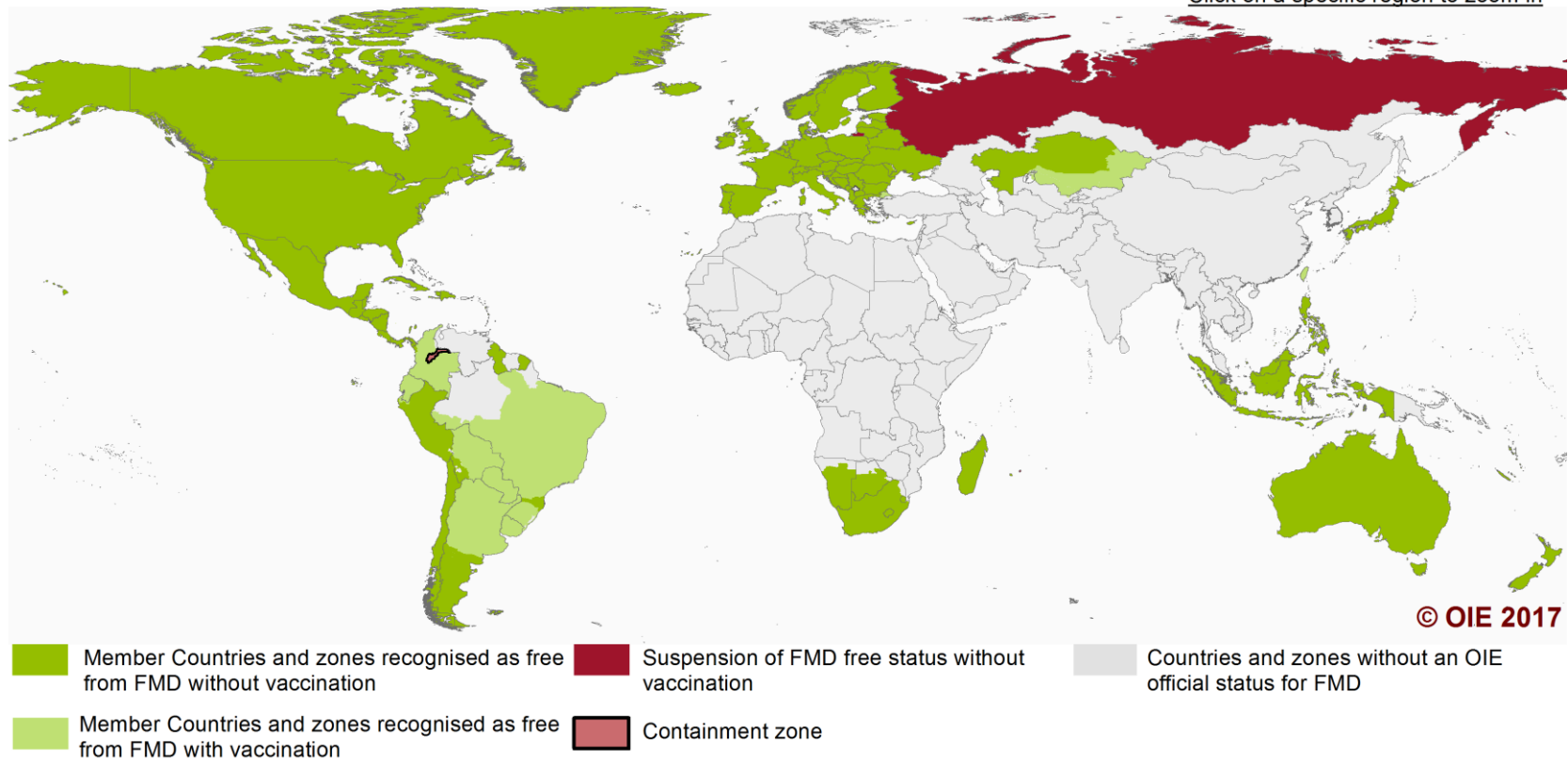
Official Disease Status (2017)



OIE Member Countries' official FMD status map

Last update December 2017

[Click on a specific region to zoom in](#)



- Devastating animal welfare and livelihood effects
 - Destruction of affected and healthy suspect animals brings out animal welfare concerns and is naturally economically and emotionally significant for farmers and communities



Economic Impacts

- Trade disadvantage for infected countries due to restrictions on importation into free countries
 - Not only for animal products
- 2010 Japan Outbreak
 - 300,000 cattle slaughtered → 3 billion USD cost
- 2010-2011 Outbreak in S. Korea
 - More than 3 million animals culled → Estimated 3 billion USD economic cost
- 2001 Outbreak in UK and Europe
 - 6.5 billion animals culled in UK
 - 8-9 Billion UKP cost to economy due to:
 - Culling
 - Lost Trade
 - Lost Tourism

How does FMD Spread?



- Cloven-hooved animals
 - More than 70 animal species affected
 - Most common affected species:
 - Cattle, Buffalo, Pigs, Sheep and Goats
 - ✓ Cattle considered sentinel animals due to high sensitivity
 - ✓ Pigs considered amplifiers
 - ✓ Sheep considered maintenance hosts and frequently are carriers
 - Feral pigs, wild boar & deer

FMD Spread



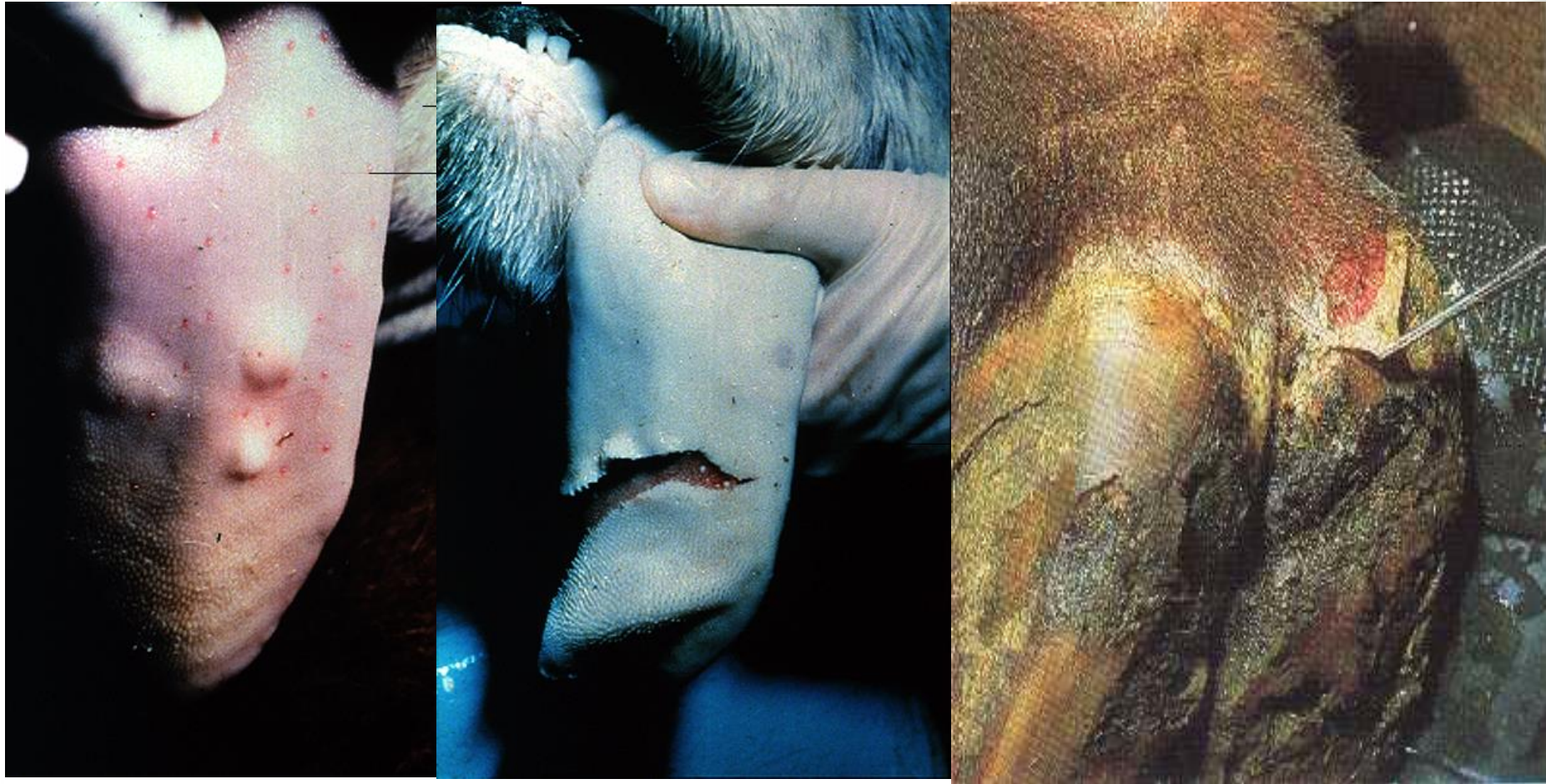
- FMD is primarily spread via contact between an infected and susceptible animal
 - Is in all secretions from infected animals
 - Aerosols important consideration – cattle and sheep especially susceptible
 - Enters susceptible animal via damaged epithelium or oral epithelium
 - Oral ingestion of contaminated products important factor
 - Is often present in meat from infected animals that has not been treated appropriately

Signs

- Typically present with vesicular lesions of feet, oral mucosae, mammary glands in female – these frequently rupture and cause lameness
 - Can lead to foamy saliva and drooling at first
- (Transient) fever
- Signs can range from mild to severe
- Fatalities (often due to myocarditis), may occur, especially in young
- Weight loss (persistent for several months)
- Decrease in milk production (temporary or permanent)
- Disease self-resolving (usually 2-3 weeks), but carrier state can be seen



Signs



Diagnosis

- Diagnosis
 - Based on clinical signs, epidemiology, and laboratory tests
- Several lab tests
 - ELISA (Antibody and Antigen)
 - RT-PCR
 - VNTs
 - Anti-NSP tests

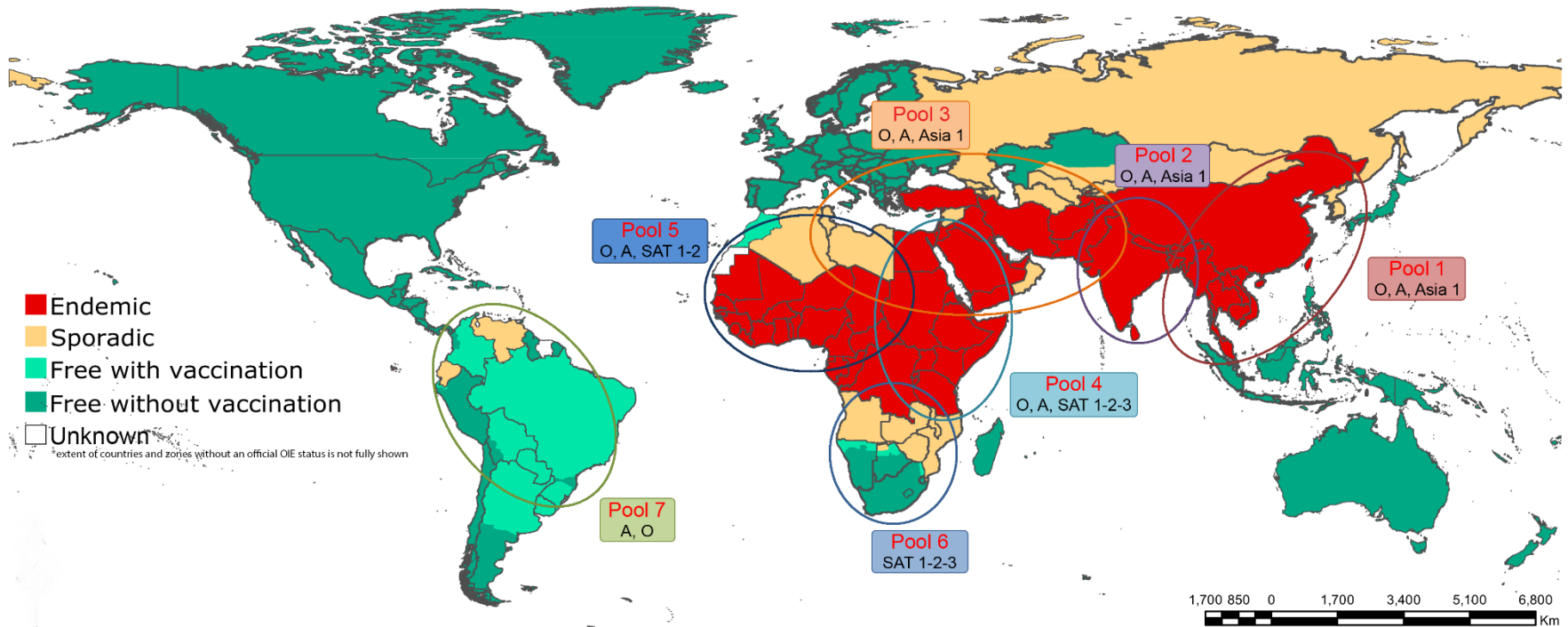


Various Prevention and Control measures

- Passive/Active surveillance
- Strategic, Ring, and emergency vaccination
- Animal movement regulation and quarantine
 - Traceability via animal identification essential component
- Culling of infected +/- Animals in contact
- Disinfection of premises - Both suspect and infected
 - High-use premises especially important

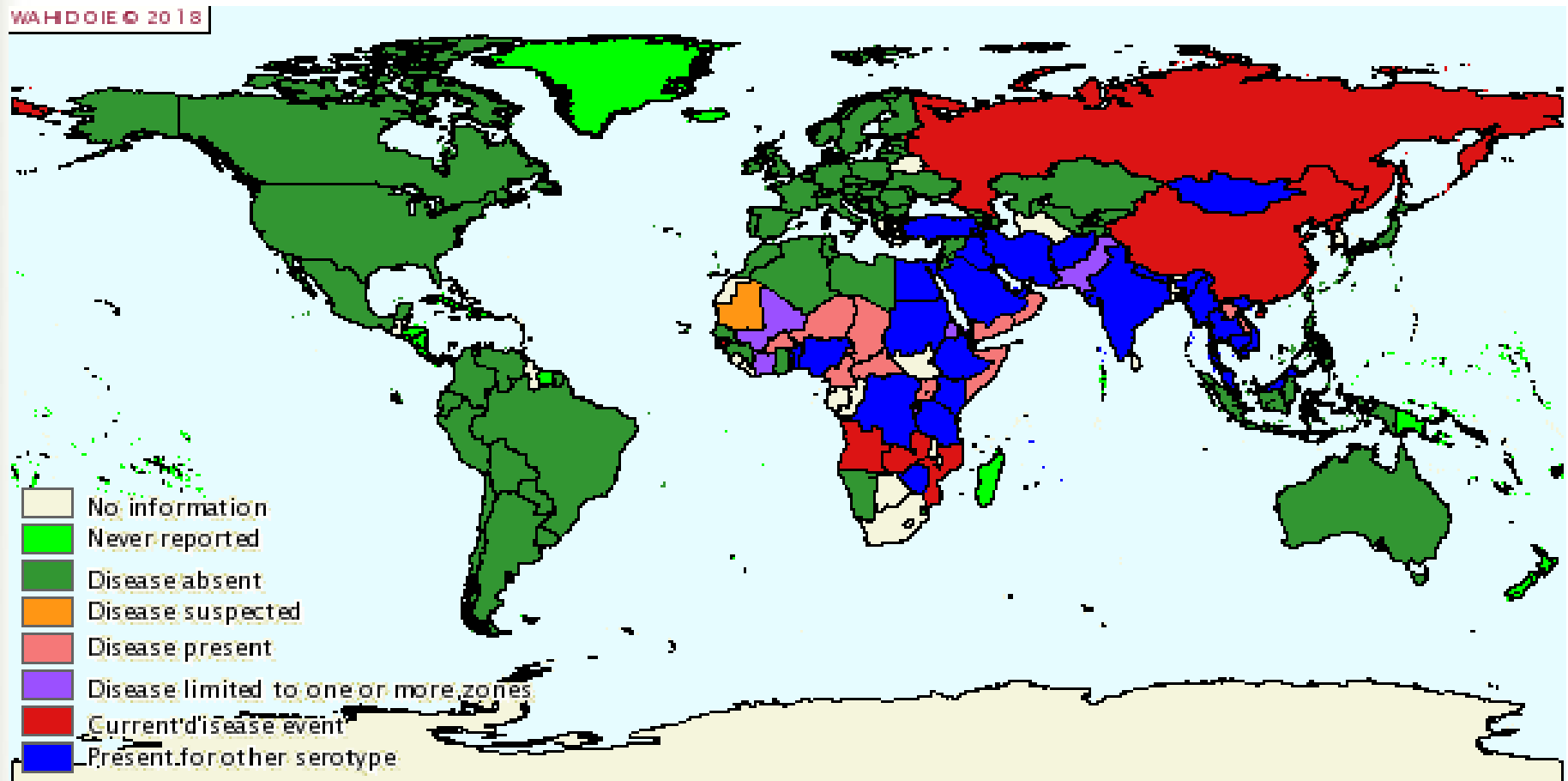
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FMD Pool



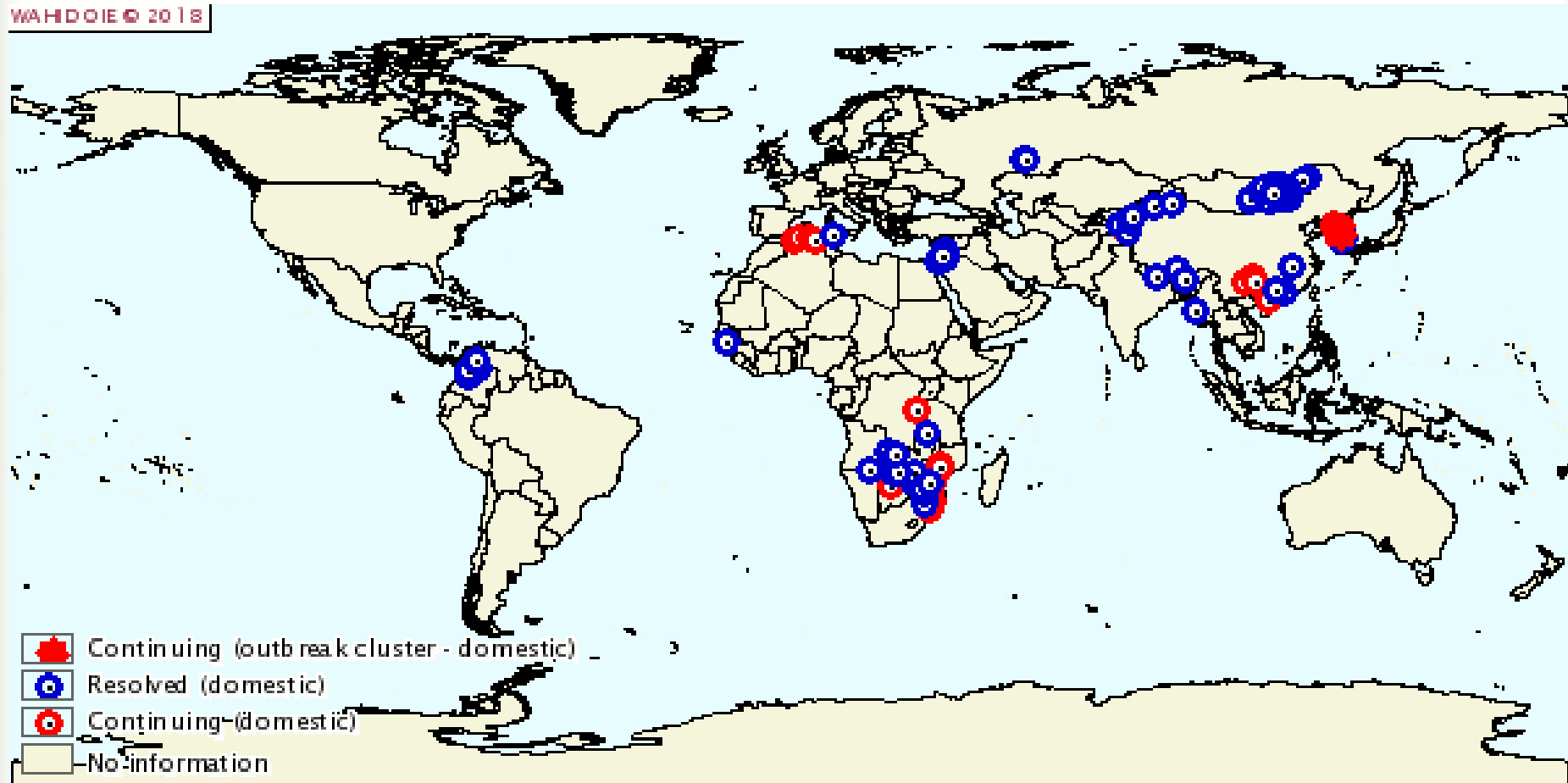
FMD Distribution 2017

WHD01E © 2018

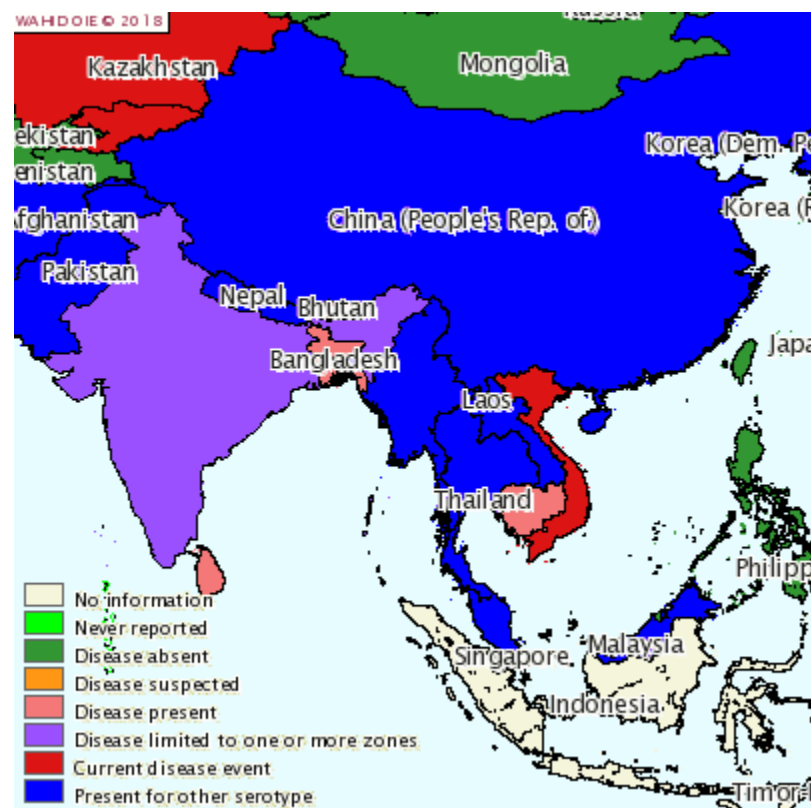


FMD Outbreaks 2017

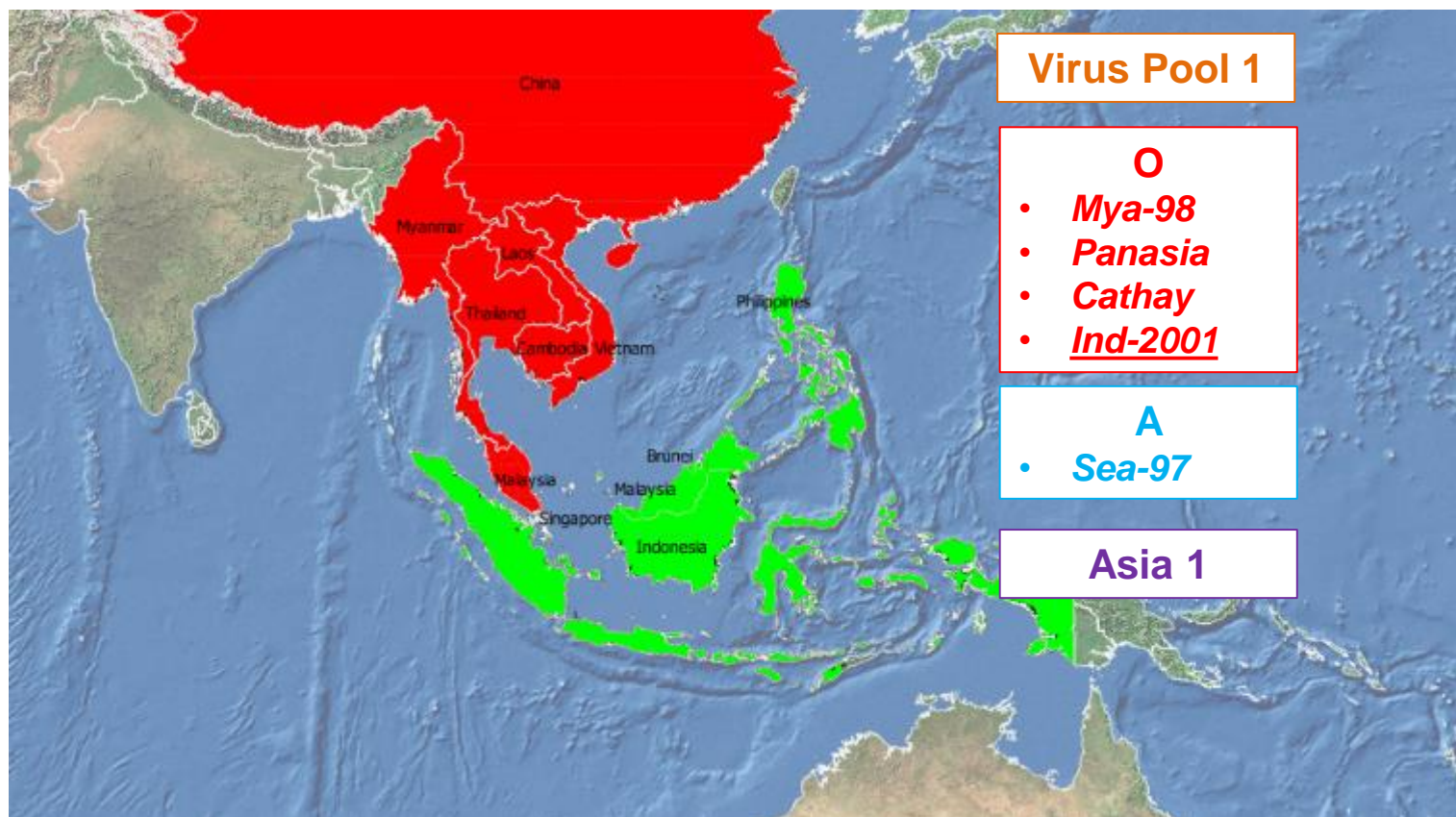
WHD01E © 2018



FMD Outbreaks 2017



FMD in the region



FMD outbreaks, 2016

518 outbreaks

FMD outbreaks_serotype

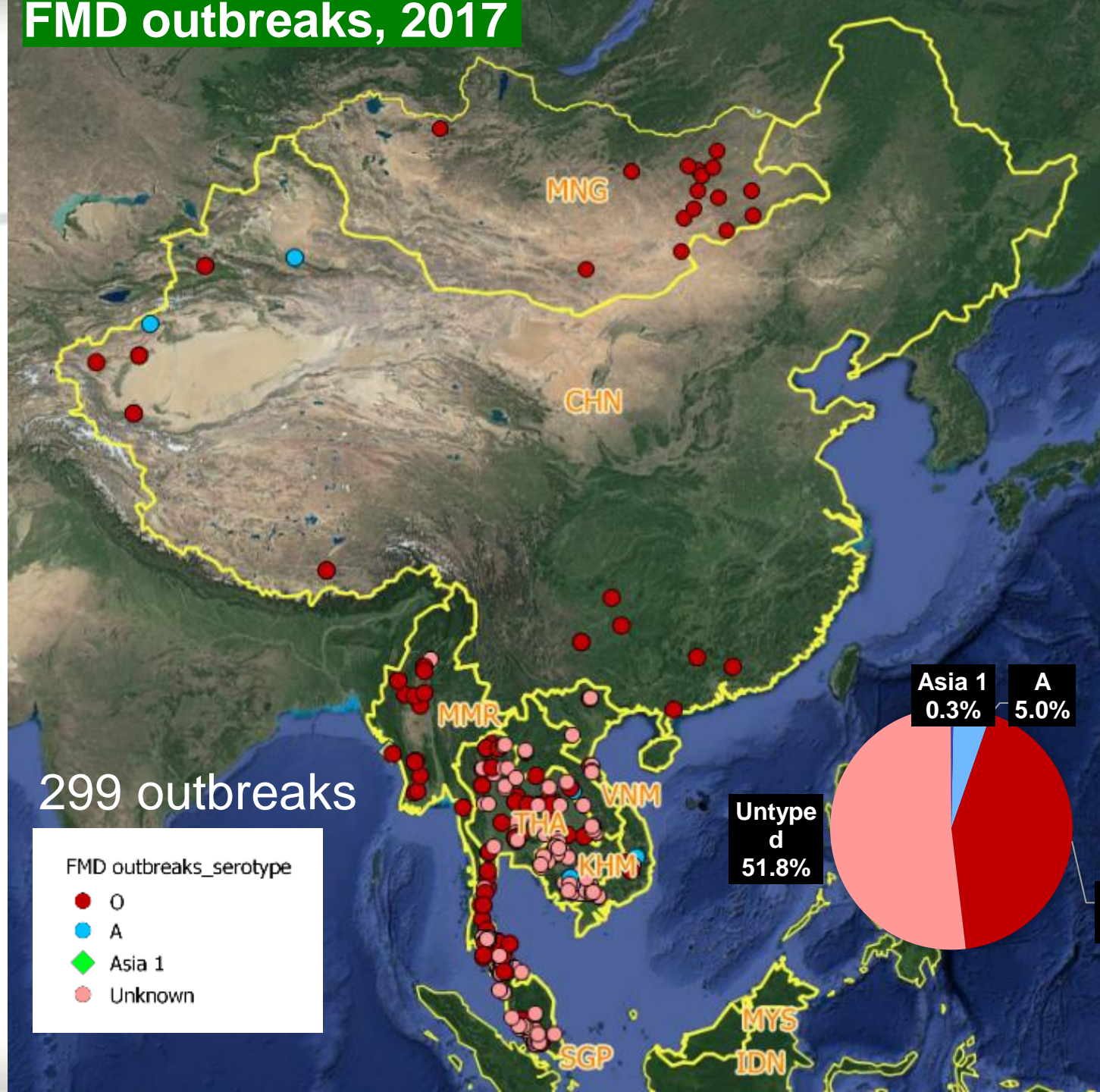
- O
- A
- ◆ Asia 1
- Unknown

Untyped
61%

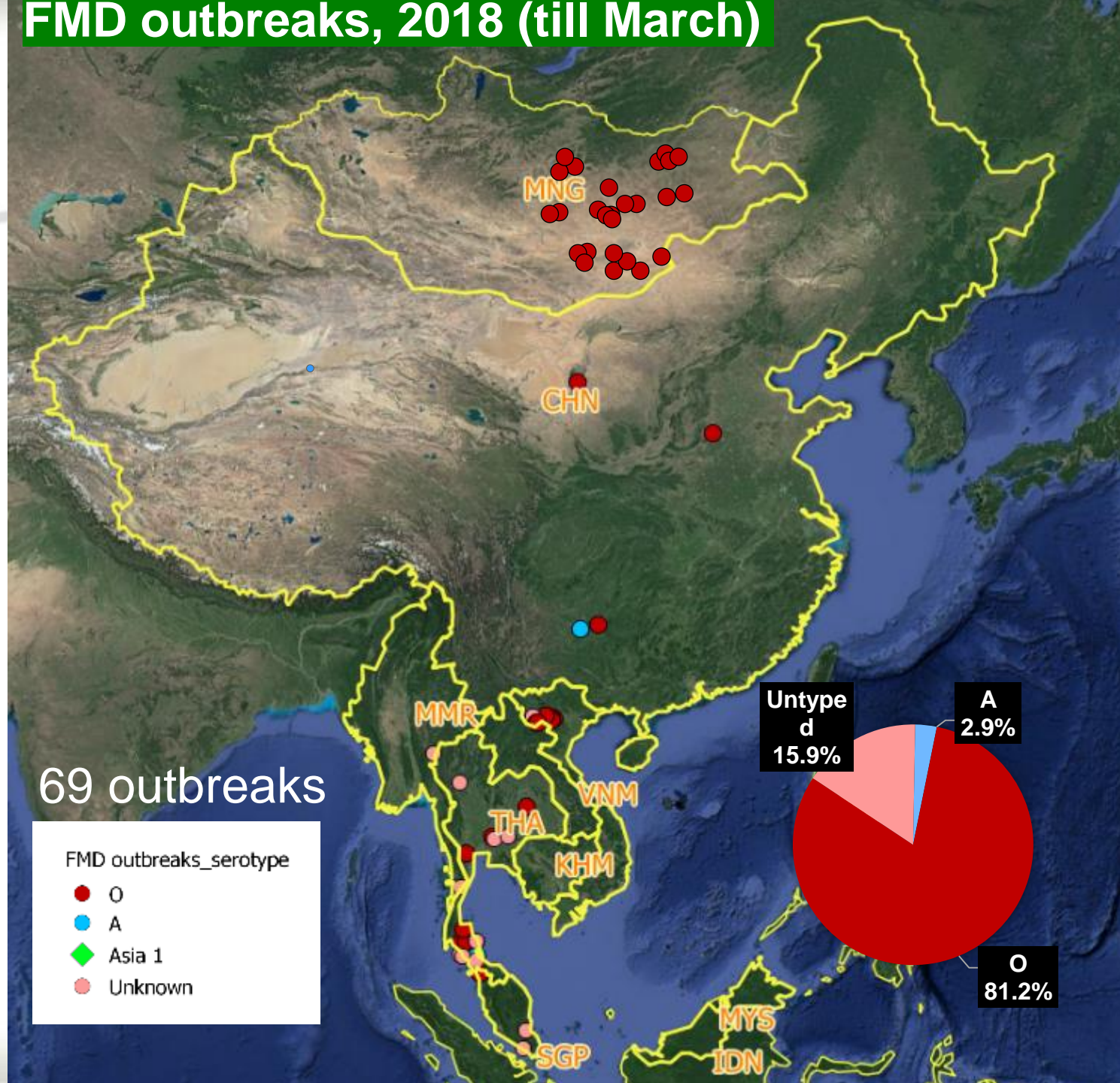
A
5%

O
34%

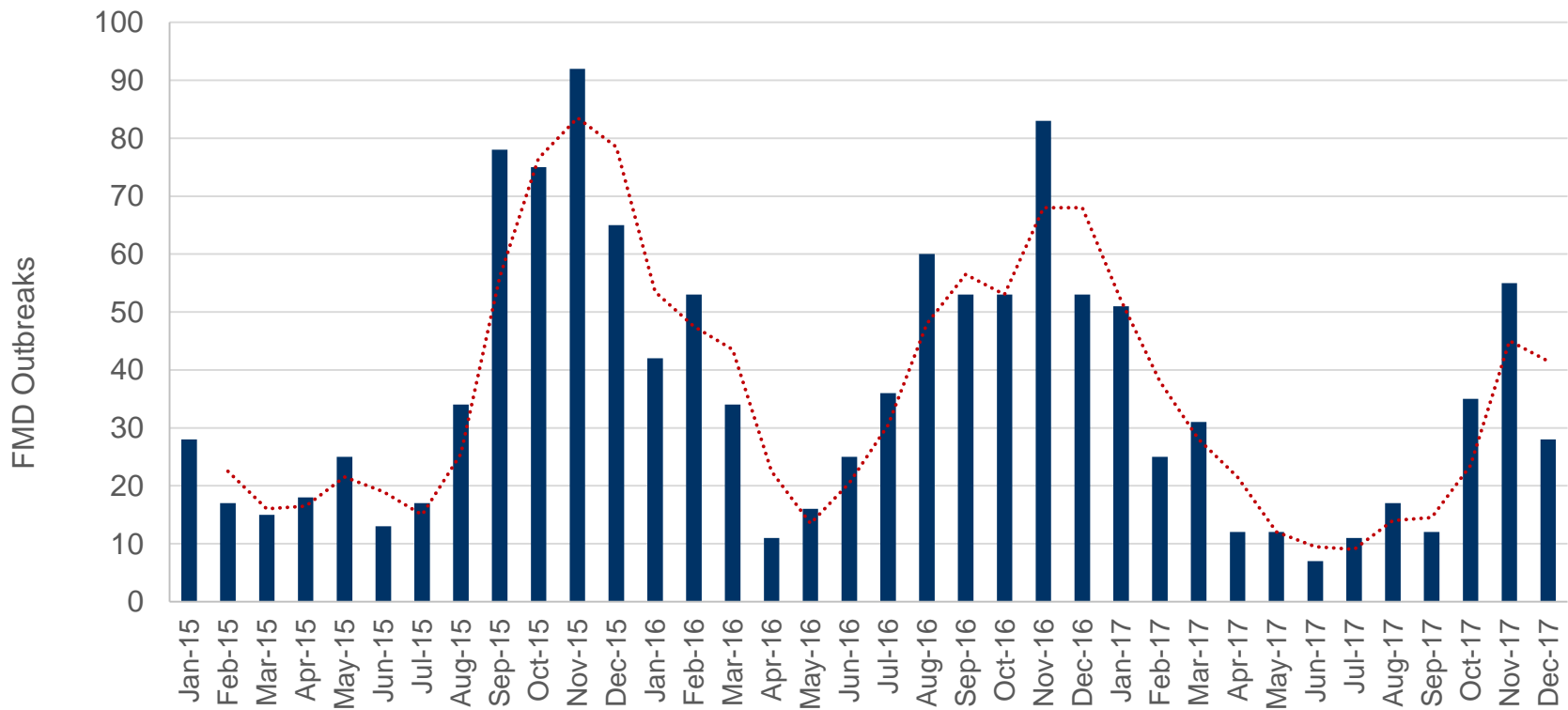
FMD outbreaks, 2017



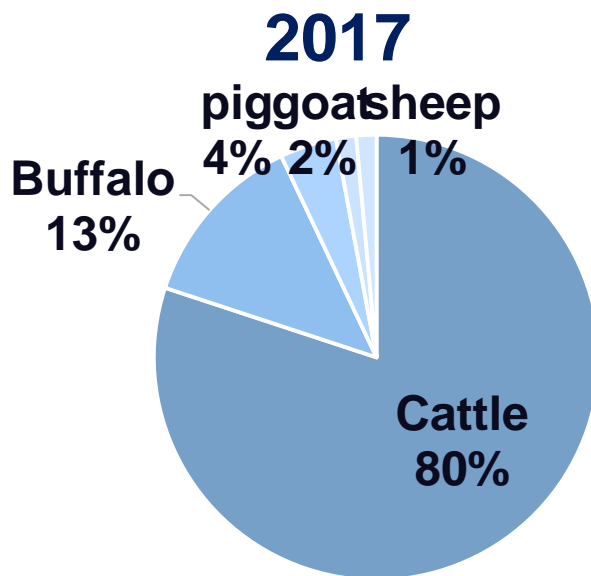
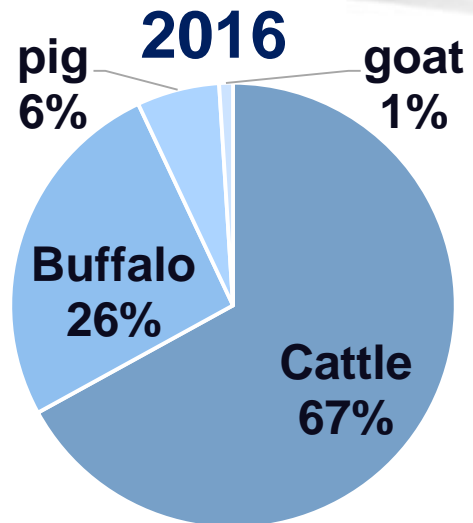
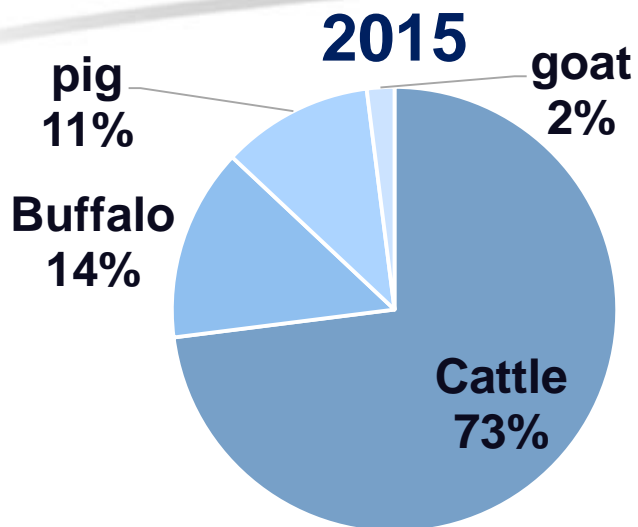
FMD outbreaks, 2018 (till March)



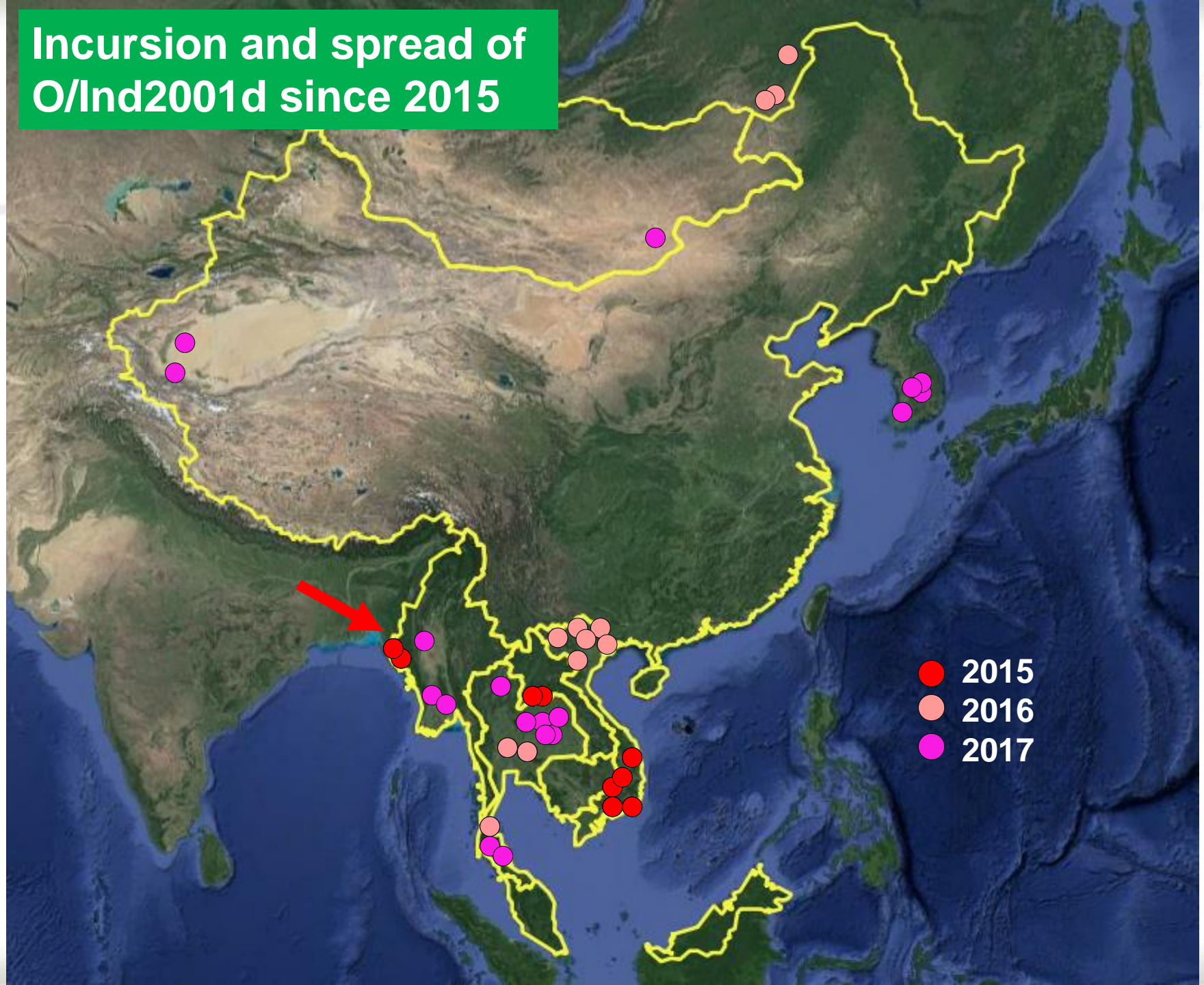
Temporal distribution of FMD outbreaks



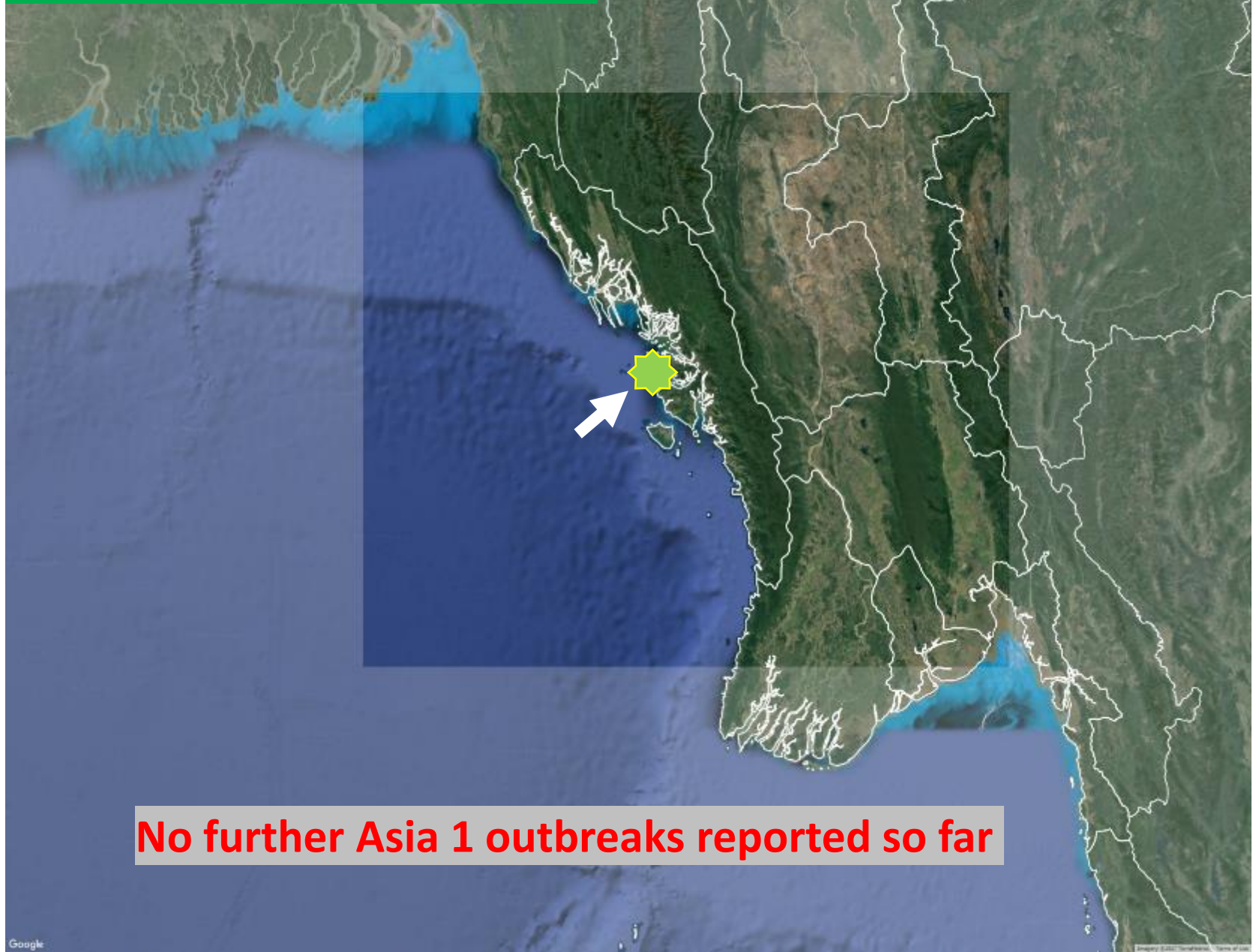
Species distribution of FMD outbreaks



Incursion and spread of O/Ind2001d since 2015

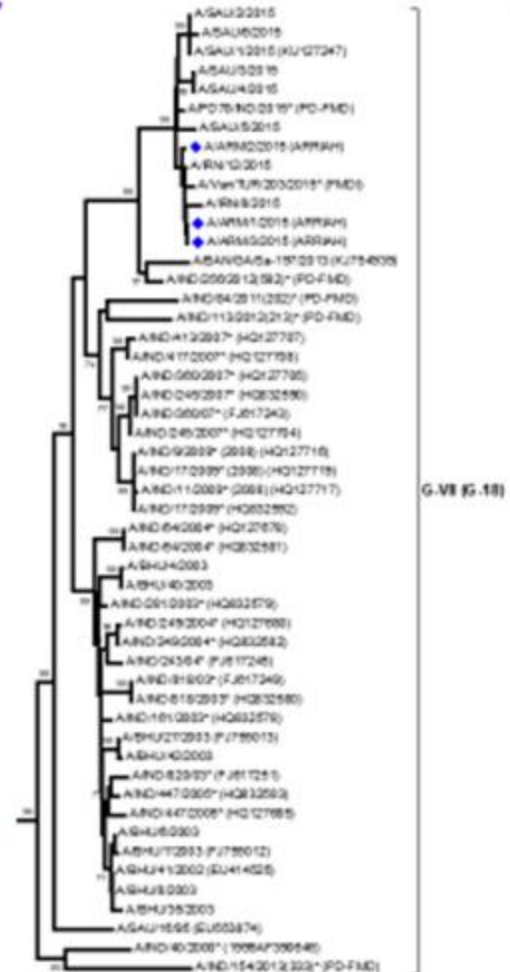
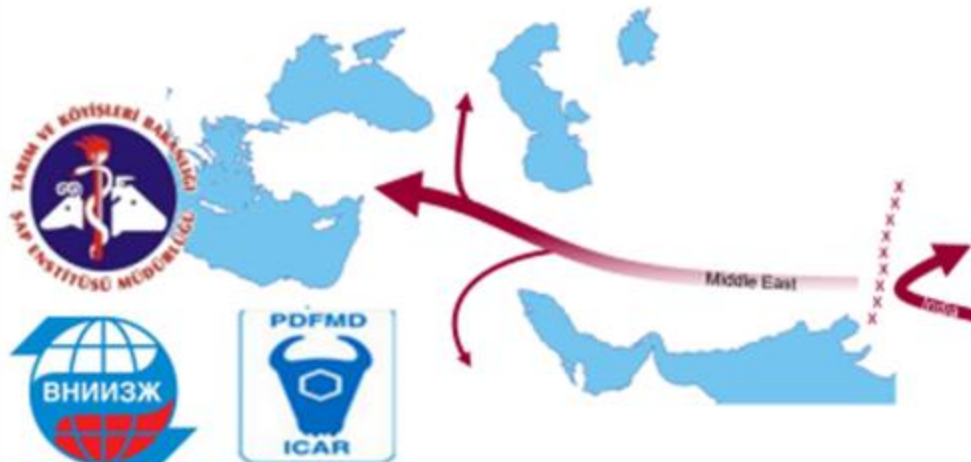


Serotype Asia 1 in Myanmar in January 2017

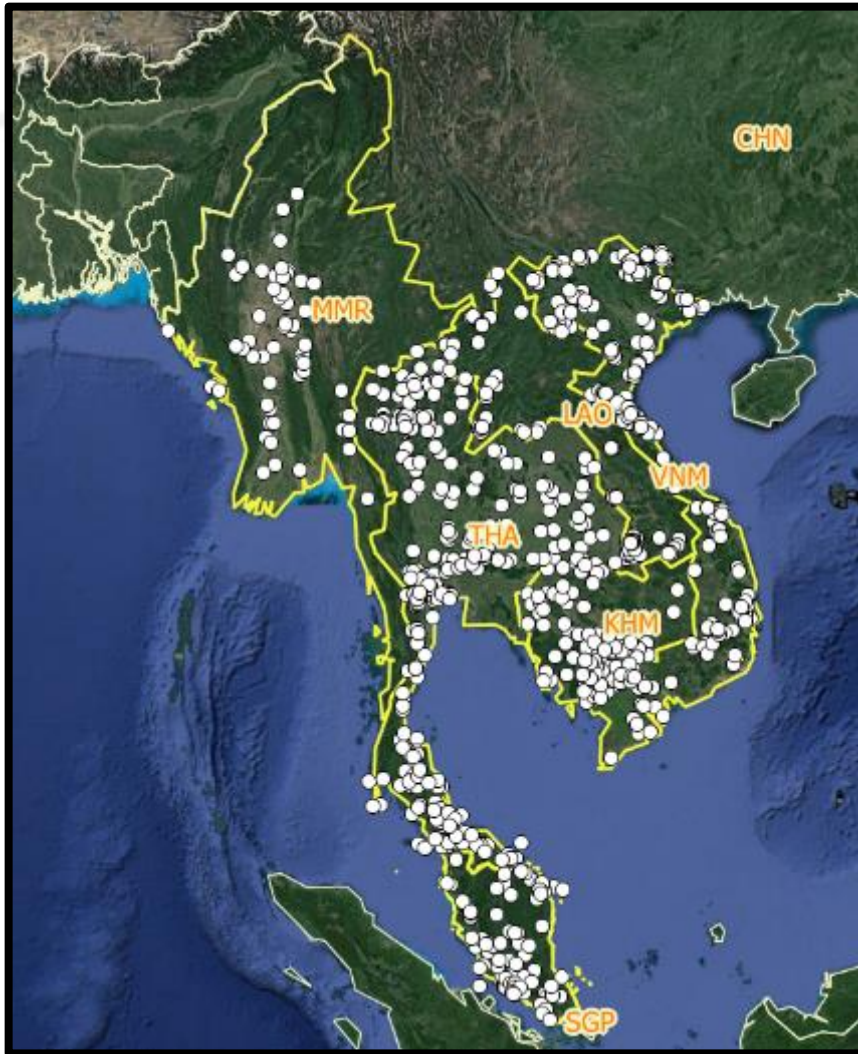


No further Asia 1 outbreaks reported so far

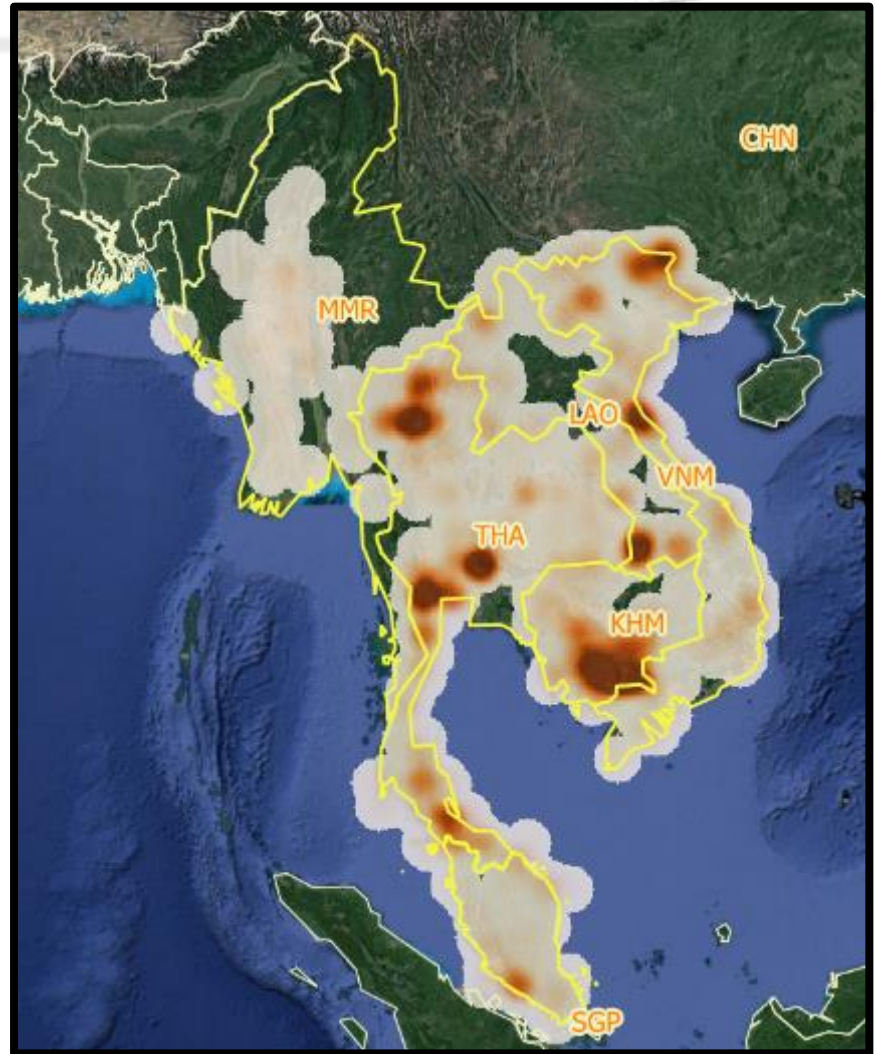
- Initial reports September 2015
- **Saudi Arabia, Turkey, Iran, Armenia**
- Originating from the Indian sub-continent
- Impact upon vaccination?



Risk Pathway: Cattle/Buffalo movement



**FMD outbreaks 2011-
2017**

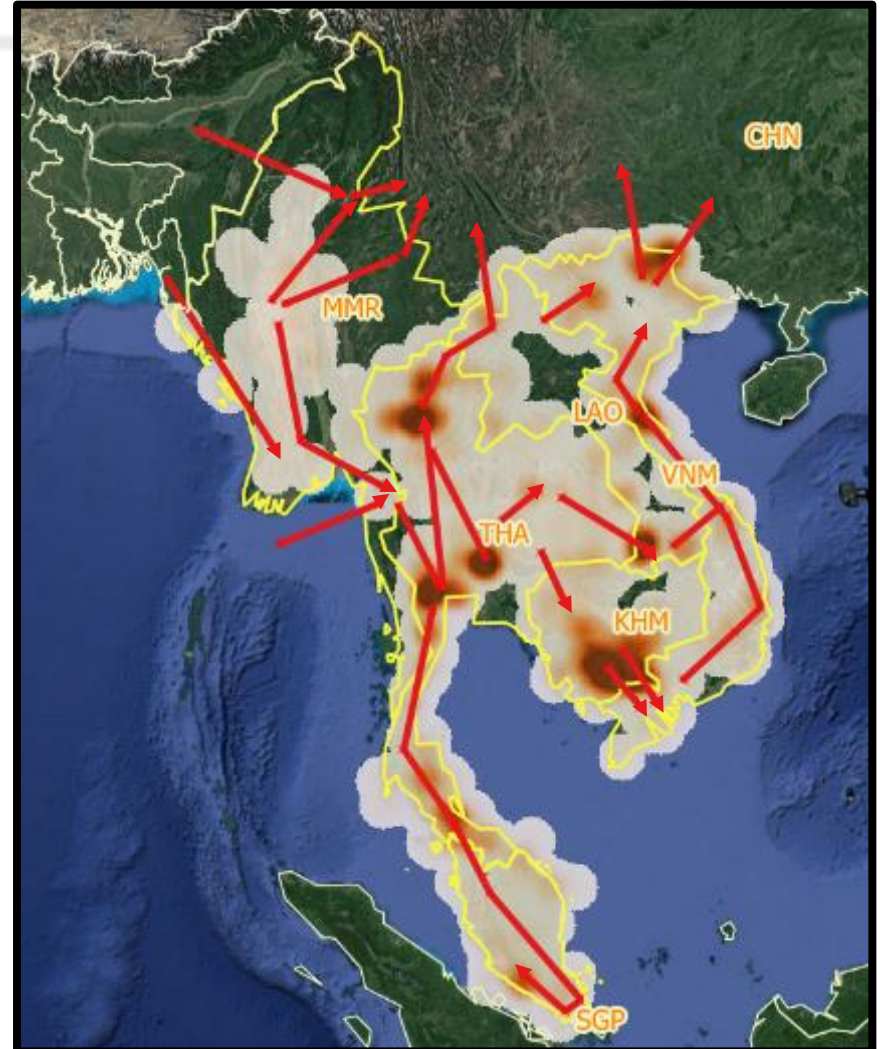


FMD hot-spots

Risk Pathway: Cattle/Buffalo movement

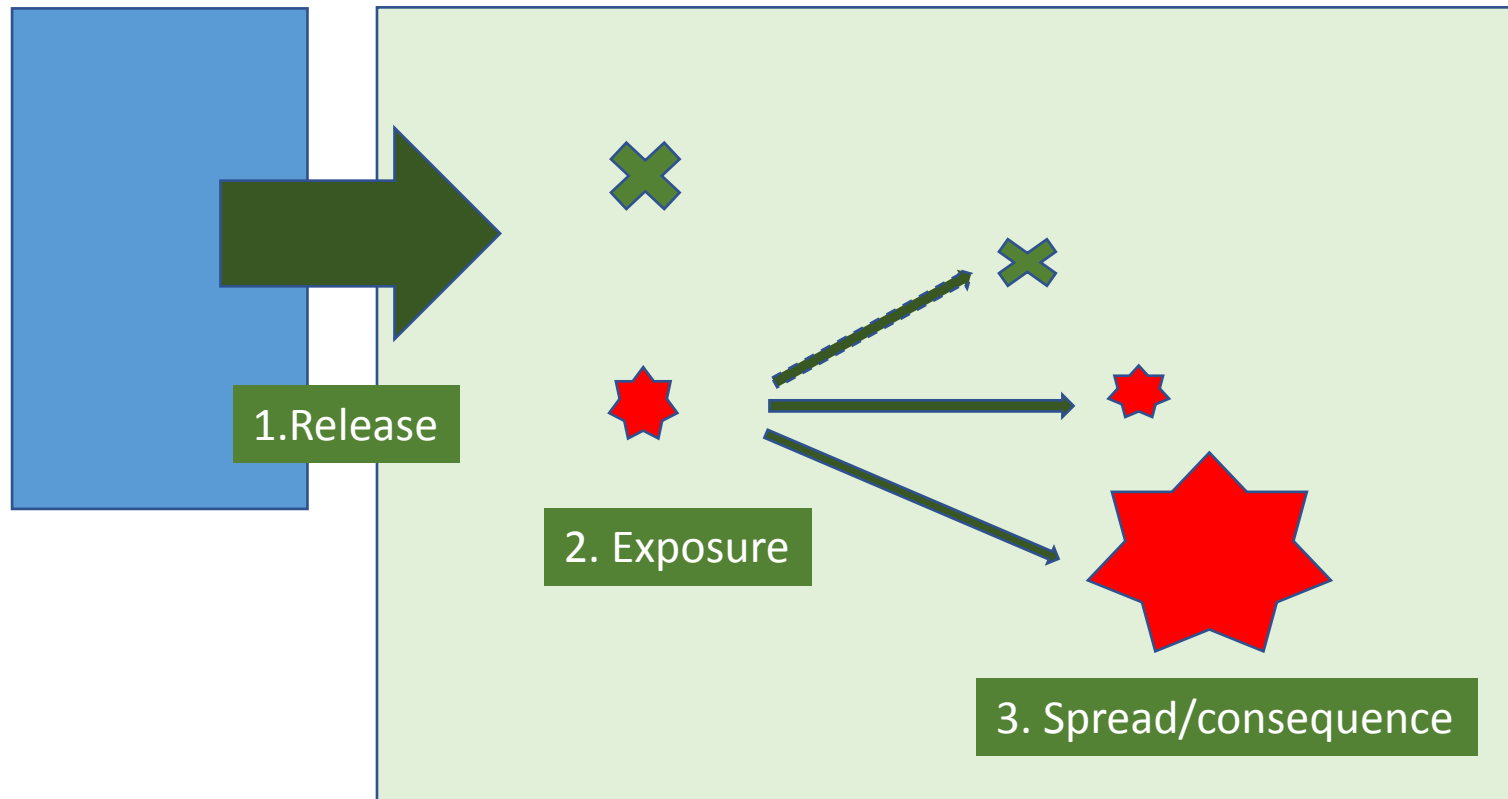


Major gathering points



Major movement routes

Risk assessment of incursions of exotic FMD strains into SEA

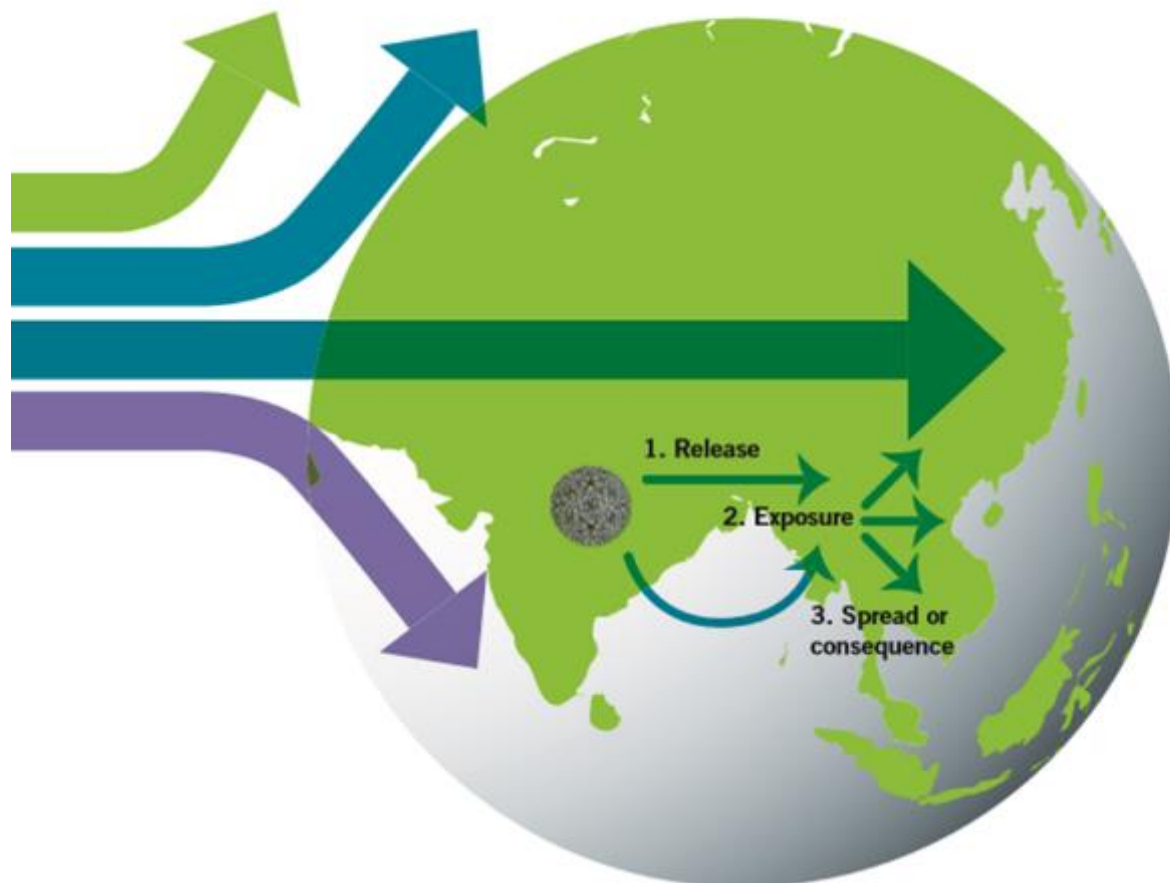


Qualitative assessment

- Country visits
- Data collection
- Risk-assessment workshop
Bangkok



Risk analysis on incursion of exotic FMD viruses into Southeast Asia



The risk of further incursions of exotic FMDVs into SEA is not a matter of “if” but rather of “when” !

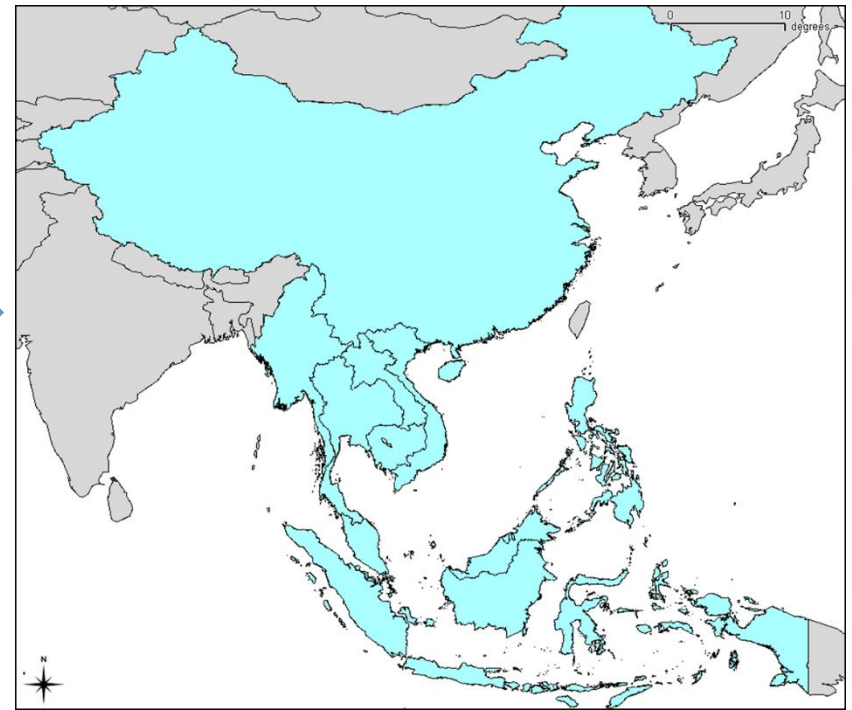
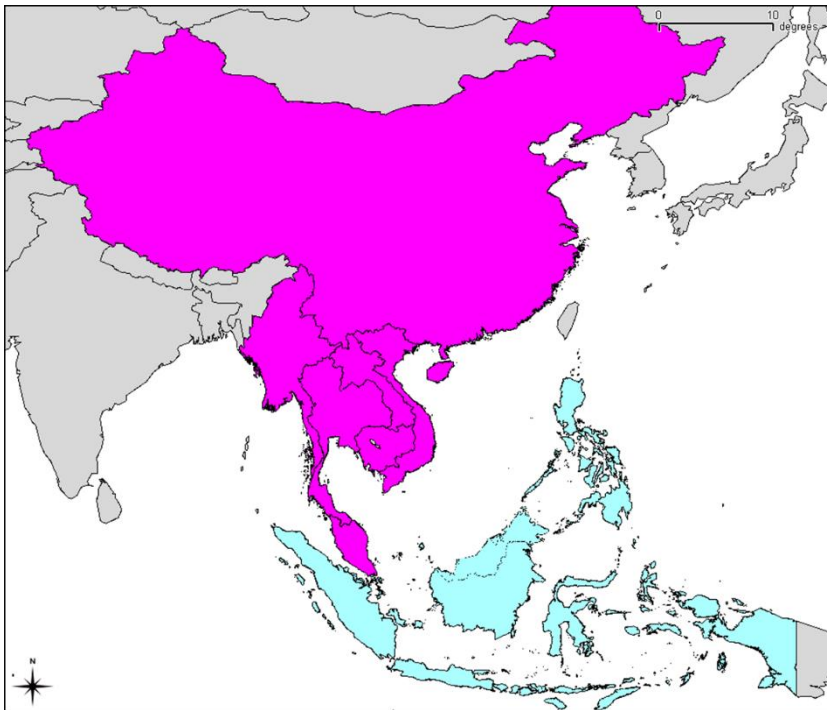
Report available online: <http://www.rr-asia.oie.int/fileadmin/FMDbook-v5.pdf>

Outline

- ❖ What is FMD
- ❖ Global and Regional FMD Situation and recent epidemiological changes
- ❖ **SEACFMD Campaign**

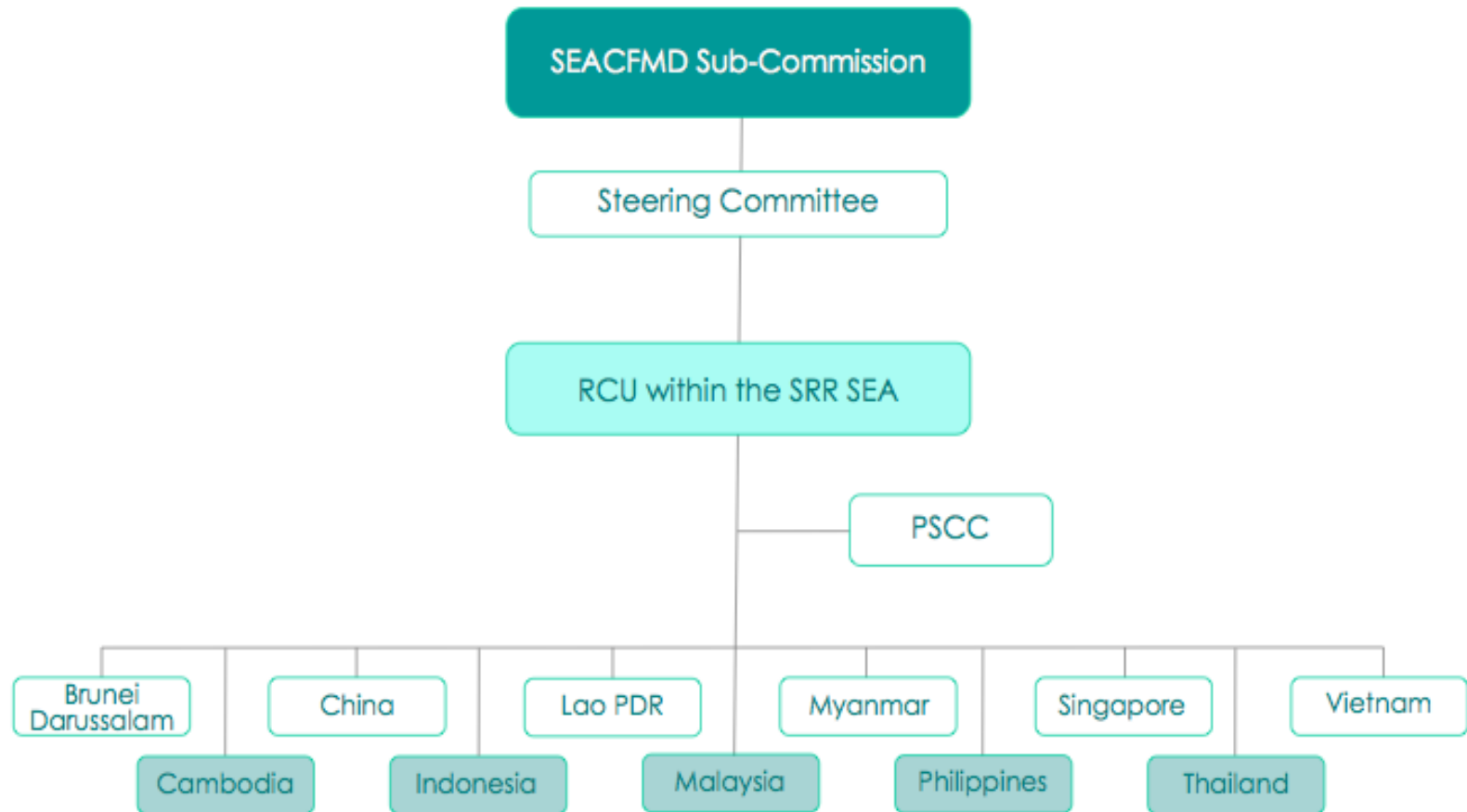
SEACFMD Campaign

Ultimate goal -> FMD Freedom !



SEACFMD Campaign

SEACFMD Campaign institutional arrangement



OIE Sub-Commission for Foot-and-Mouth Disease in South-East Asia and China (SEACFMD)



- Platform for regional cooperation to control FMD in the region
- Provide strategic direction for the prevention, control and eradication of FMD
- Enhance political commitment and country ownership to support the SEACFMD campaign
- Technical and policy support



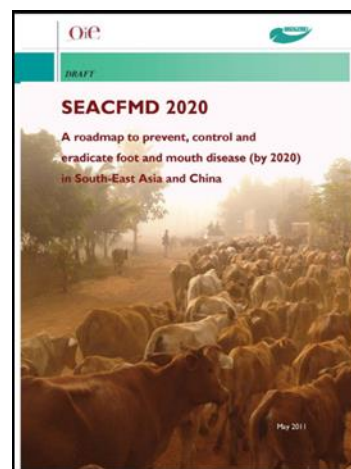
SEACFMD Roadmap

- Provide Strategic Framework for the SEACFMD Campaign , aligned with OIE/FAO Global FMD Control Strategy
- Apply OIE standards in the prevention, control and eradication of FMD
- Describe the technical, governance, policy, coordination and advocacy aspects inn FMD control;

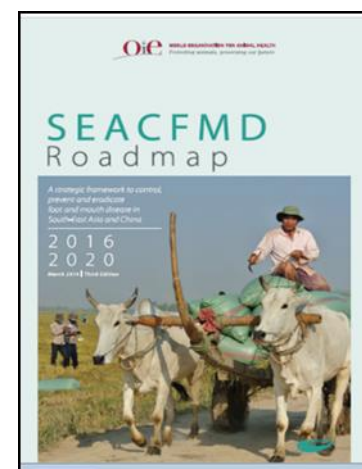
2007



2011

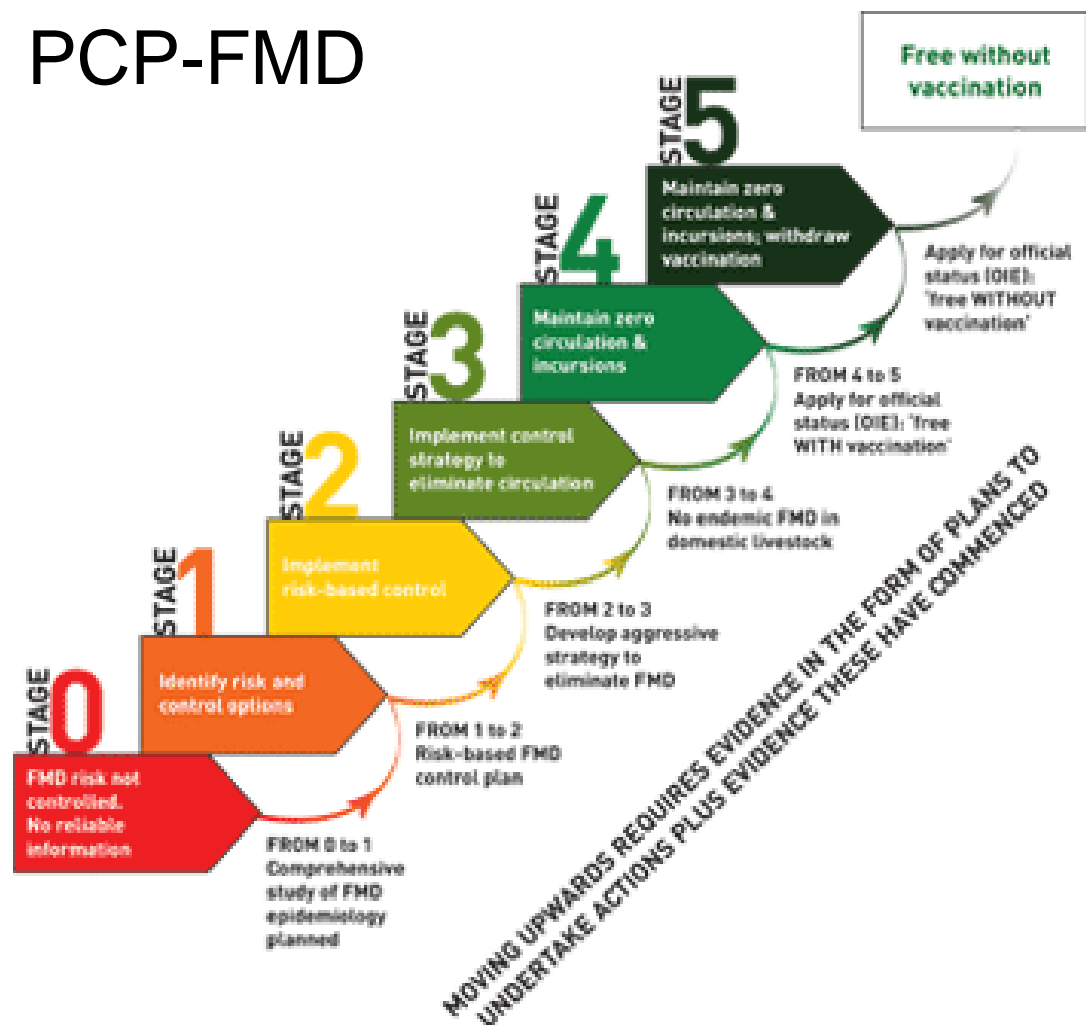


2016



SEACFMD Roadmap

PCP-FMD



SEACFMD Roadmap



Example of regional agreement to reduce risks of FMD spread in the region



Joint Statement on Harmonizing Procedures for Livestock Movement among Cambodia, China, Laos, Malaysia, Myanmar, Thailand and Vietnam

WE JOINTLY AGREE THAT:

1. Veterinary Services of Member Countries shall develop, strengthen and improve procedures for managing the movement of livestock and their products in each country, in order to control transboundary animal diseases, promote food safety, and protect the health of animals and the public in our countries and our region.
2. Procedures for managing biosecurity and the health risks associated with the movement of livestock and their products, including international health certification, will be developed and harmonized based on the OIE Code and other international standards.
3. Bi-lateral or multi-lateral agreements on regional livestock movement and trade should be developed and implemented.
4. The Upper Mekong Working Group, coordinated by OIE Sub Regional Representation for South-East Asia, should serve as the focus for development of standardised protocols and procedures to support cross-border trade in livestock, including consideration of the development of control zones. The representatives of individual Member Countries on this group will be suitably supported by our respective Veterinary Services to assist in this important coordination work.

Signed on May 26th, 2016 in Paris, France

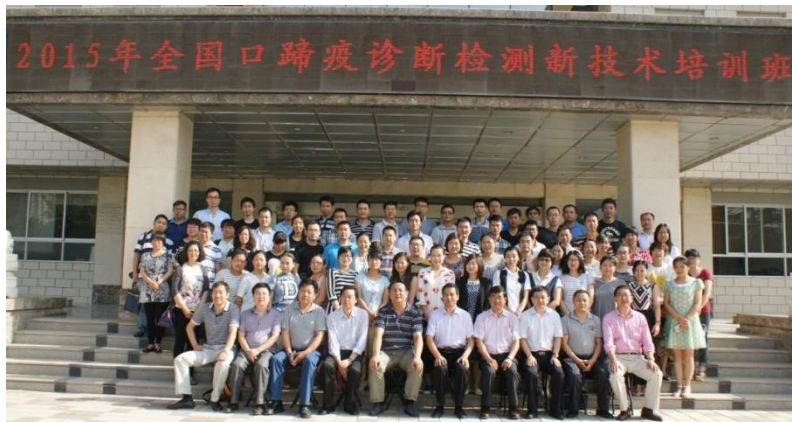
Signatories:

		
Dr Sen Sovann	Dr Gongmin Wang	Dr Somphanh Chanphengxay
Ministry of Agriculture, Forestry and Fisheries	Veterinary Bureau Ministry of Agriculture	Department of Livestock and Fisheries
CAMBODIA	PR China	LAO PDR
		
Dr Kamarudin Bin Md Isa	Dr Ye Tun Win	Dr Ayuth Hantharanon
Department of Veterinary Services	Livestock Breeding Veterinary Department	Department of Livestock Development
MALAYSIA	MYANMAR	THAILAND

SEACFMD Campaign



Regional FMD Research Institutes



SEACFMD Campaign



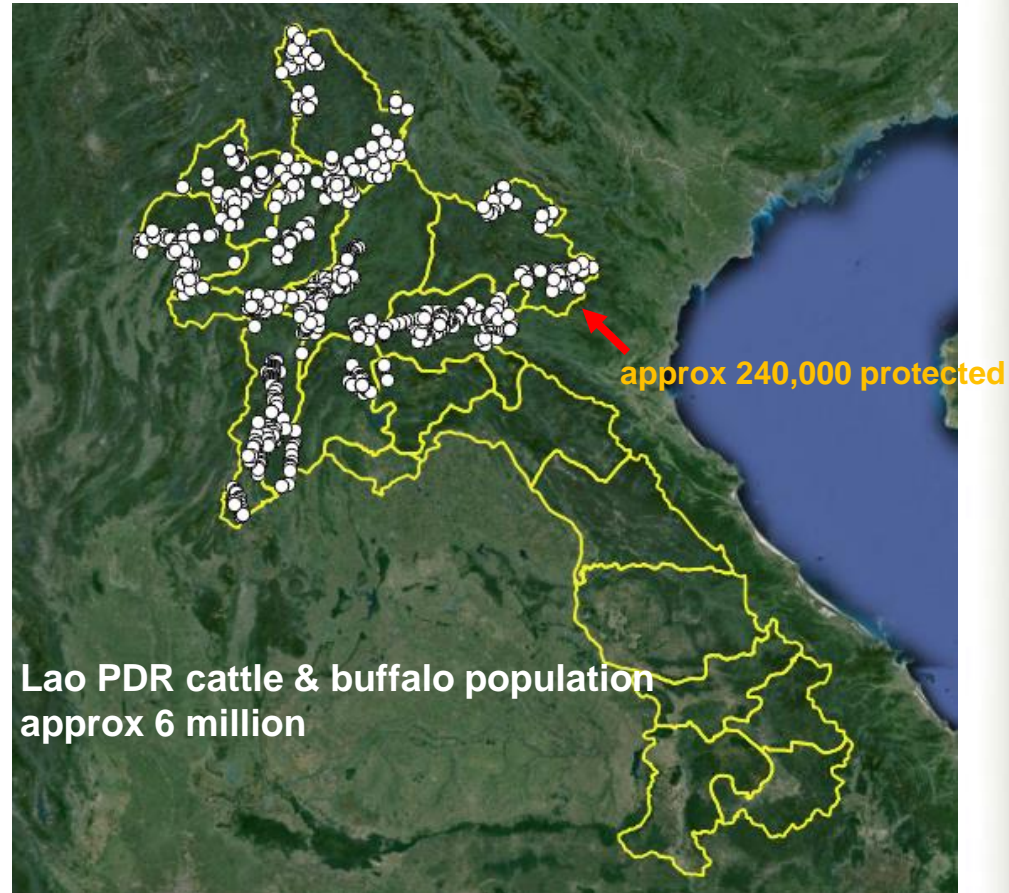
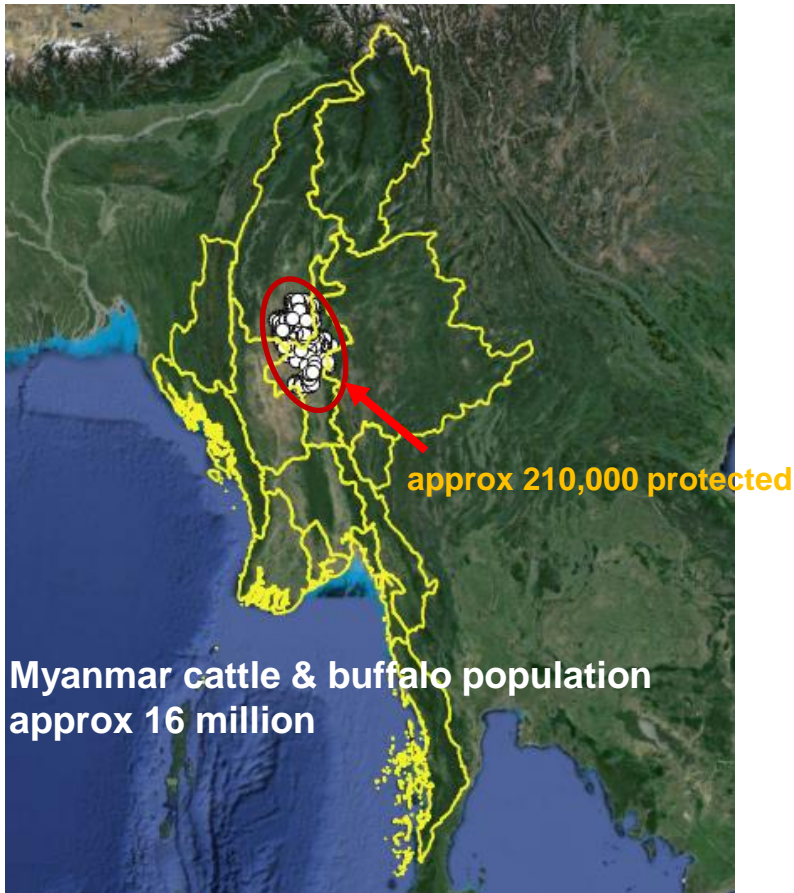
National FMD Control Plan for OIE endorsement



SEACFMD Campaign



STANDZ-funded Vaccination Campaign



SEACFMD Campaign



New Zealand funded FMD projects



Vientiane Times

The First National English Language Newspaper

JULY 27, 2016 ISSUE 172

4500 kip

Times Reporters

The 49th Asean Foreign Ministers' Meeting (AMM) and its dialogue partners as well as other external parties also had fruitful deliberations on important political, security and development cooperation issues.

began on July 21.

During the meetings, Asean and its dialogue partners as well as other external parties also had fruitful deliberations on important political, security and development cooperation issues.

This was the key message of a statement delivered by

Minister of Foreign Affairs Mr. Saleumxay Kommasith during a press conference on the outcome of the 49th AMM and related meetings.

Mr. Saleumxay noted that Laos had chaired the 49th AMM and related meetings for four days from July 23-26, when 22 ministerial meetings

took place. These included three meetings between Asean Foreign Ministers relating to specific regions.

There were also 14 meetings with external partners under Asean-led mechanisms, namely Asean Plus One, Asean Plus Three, the East Asia Summit, Asean Regional

Forum, and five Sub-Regional Ministerial Meetings.

Laos also hosted many bilateral meetings with development partners, which all produced wide-ranging, candid and successful discussions.

Ministers reviewed the

CONTINUED PAGE 2

New Zealand gives boost to foot-and-mouth disease control

Times Reporters

The New Zealand Aid Programme, through the New Zealand Minister of Foreign Affairs and Trade, has provided US\$3.1 million to the Lao government to carry out a foot and mouth disease control programme.

The Foot and Mouth Disease (FMD) control

programme, called the "OIE-DLF FMD Control project" was launched in Vientiane yesterday by Minister of Agriculture and Forestry, Dr. Lien Thikoo, New Zealand Minister of Foreign Affairs and Trade, Mr. Murray McCully, New Zealand Ambassador to Laos Ben King, and President of the OIE Sub-Commission for the Control of FMD in

South-East Asia and China, Dr. Gardner Murray.

Also present on the occasion were other officials from Laos and New Zealand.

The project will be co-managed by the Department of Livestock and Fisheries under the Ministry of Agriculture and Forestry and the World Organisation for Animal Health (also known as the Office

International des Epizooties-OIE).

The project will be rolled out in Savannakhet, Champassak and Xieng Khuang provinces over the next four years from March this year to May 2020.

Some 60,000 farming households in the project area are expected to benefit by increasing their livestock herds through the prevention

of losses from FMD outbreaks and improved market access.

The project will enable farmers to improve their livelihoods, safeguard their food security, and contribute to economic growth, Dr. Lien said.

This project is very important to enhancing Laos' efforts to control FMD as

CONTINUED PAGE 3

the implementation of the Mekong-Japan Action Plan for Realisation of the New-Tokyo Strategy 2015 which encompasses four priority pillars. These are industrial infrastructure development, industrial human resource sustainable development, and coordination with various stakeholders.

The meeting also discussed the future direction of Mekong-Japan cooperation, with Japan to continue to support and assist in the implementation of programmes and projects for Mekong countries.

In particular, Laos and Japan

CONTINUED PAGE 3

Take home message

- Risks of FMD spread is real
- Key Success factors to prevent and control
 - Political commitment
 - Resources
 - Strong well trained veterinary services
 - Productive working relationships with stakeholders
 - Effective communications

Thank you for your kind attention !



WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future