

Progress of SEACFMD Campaign and Laboratory Network

Ronello Abila

Sub-Regional Representative for South-East Asia



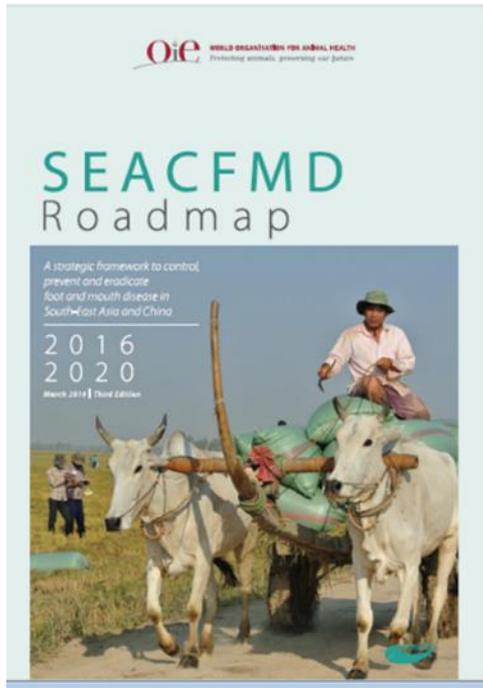
WORLD ORGANISATION FOR ANIMAL HEALTH

Protecting animals, preserving our future



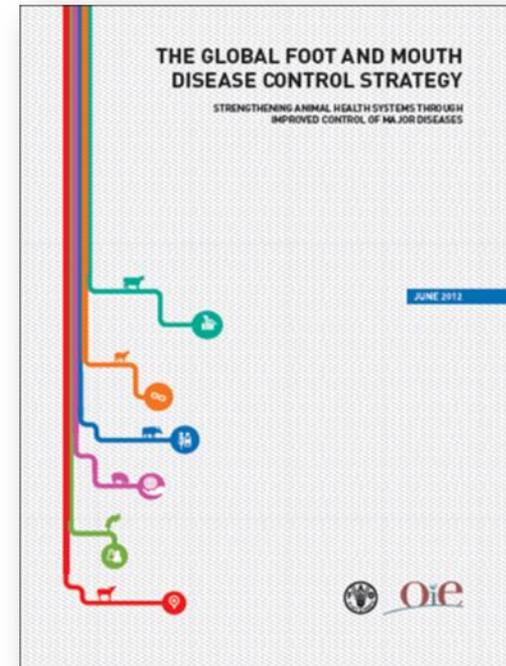
OIE South-East Asia and China FMD (SEACFMD) Campaign

SEACFMD Roadmap (2016-2020)

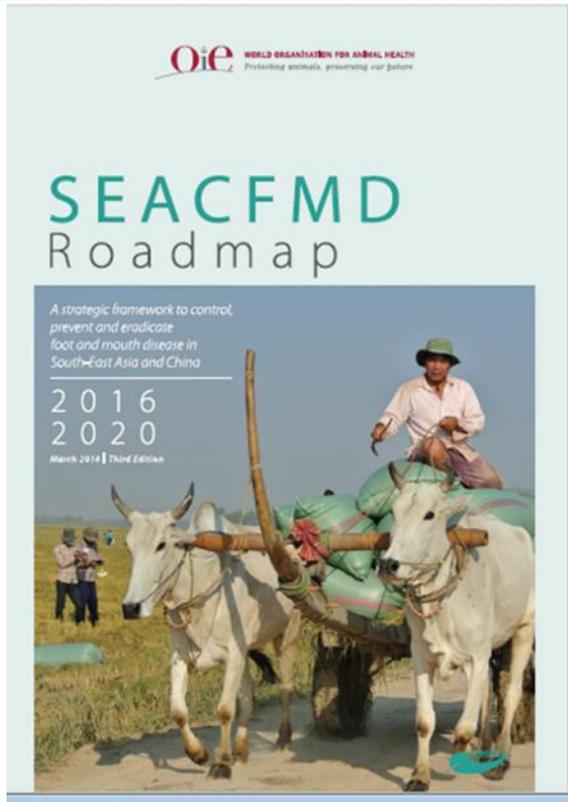


GOALS

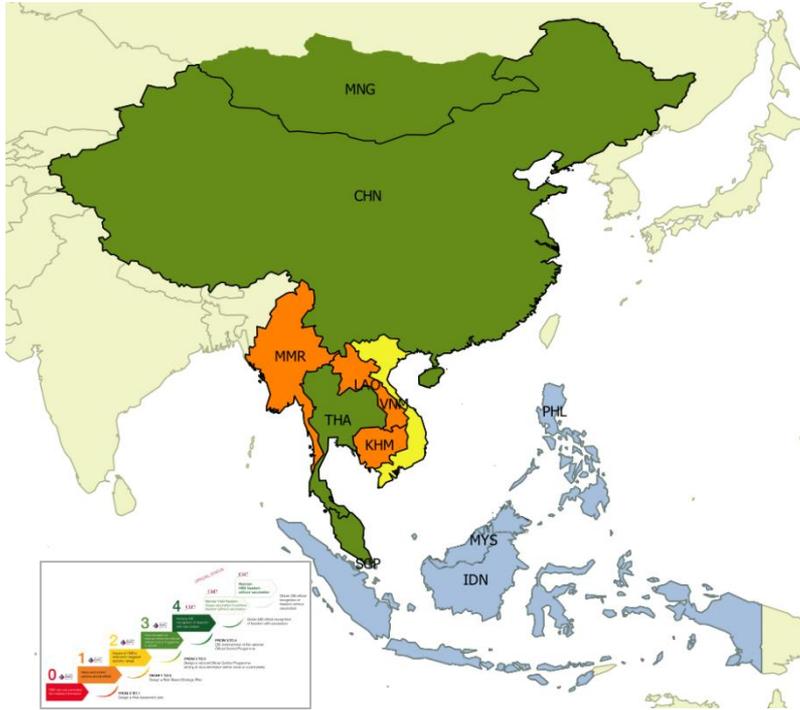
- Decrease FMD incidence in South East Asia and China by the year 2020, expand and maintain FMD freedom in countries and zones that have achieved that status;
- Strengthen national Veterinary Services;
- Enhance regional cooperation in policy and capacity development.



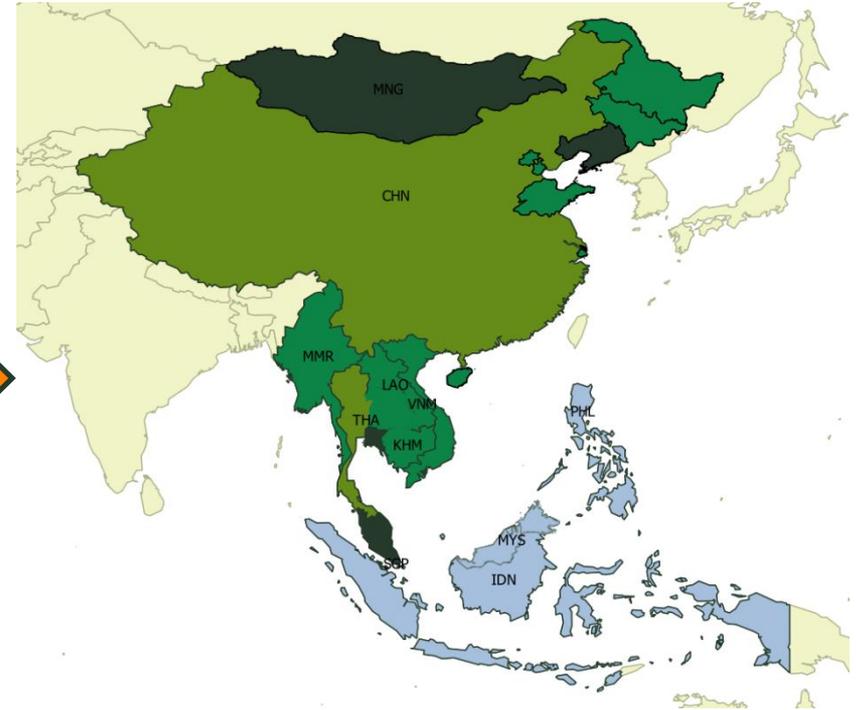
SEACFMD Roadmap (2016-2020)



SEACFMD Indicative PCP stages



2015



2020

Monitoring of Progress along SEACFMD Roadmap Milestones and PCPFMD

SEACFMD ROADMAP COMPONENT ACTIVITIES 2018/19

Technical Component

Surveillance

- Epidemiological studies
- Risk analysis
- Outbreak investigations

Biosecurity

- Quarantine Station and checkpoints
- Animal movement management

Vaccination

- Risk-based vaccination
- Post vaccination monitoring

Analysis of FMD situation

SEACFMD Bulletin

Foot and Mouth Disease Situation
January to December 2018

OIE SUB-REGIONAL REPRESENTATION FOR SOUTH-EAST ASIA (SRR-SEA)
C/o Department of Livestock Development, Pong Thai 10400, Bangkok, Thailand
Tel: (+66-2) 6534864 * Fax (+66-2) 6534904 Email: srr.asia@oie.int

Outbreaks of FMD in SEACFMD Countries in 2018

1. Overview of the regional situation in 2018

In 2018, FMD outbreaks have continued to affect traditionally endemic countries (China, Myanmar, Lao PDR, Vietnam, Thailand, Cambodia, and peninsular Malaysia) (Figure 1). Of the total 458 outbreaks reported, 211 were due to serotype O, 46 were due to serotype A, and the remaining 243 were not typed due to absence of or insufficient samples collected. Cattle were reported affected from 358 outbreaks, buffaloes from 25, goat and sheep from 34, and pigs from 40 outbreaks. Moreover, deer and camel were reported affected in one outbreak each (in Malaysia and Mongolia, respectively). Infection involving more than one species was commonly noted.

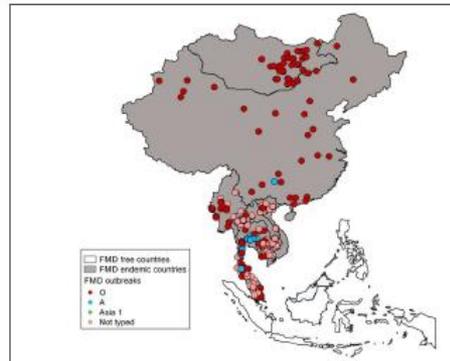


Figure 1. Distribution of FMD outbreaks in SEACFMD countries, 2018.

2. FMD situation in SEACFMD countries

The **Brunei, Indonesia, Philippines, and Singapore** did not report any FMD outbreaks in 2018 and maintained their official status of FMD free without vaccination.

Characterisation of FMDVs in SEACFMD Countries in 2018

In 2018, some FMDVs were sequenced for the VP1 coding region for strain identification, by which the following strains were detected:

- Serotype O: O/SEA/Mya-98, O/ME-SA/PanAsia, O/ME-SA/Ind-2001 and O/Cathay
- Serotype A: A/Asia/Sea-97

Table 1. FMDV strains detected in SEACFMD Member Countries in 2018, as characterised by the World and/or Regional Laboratory for FMD.

Country	Serotype O				Serotype A		Serotype Asia/ Q-VIII
	SEA/ Mya-98	ME-SA/ PanAsia	ME-SA/ Ind-2001	Cathay	ASA/ Sea-97	Asia/ Q-VIII	
Cambodia	+	+					
China	+	+	+	+		+	
Lao PDR	+		+			+	
Myanmar	+			+			
Malaysia	+			+			
Mongolia	+	+	+	+			
Thailand	+	+	+	+		+	
Viet Nam	+			+			

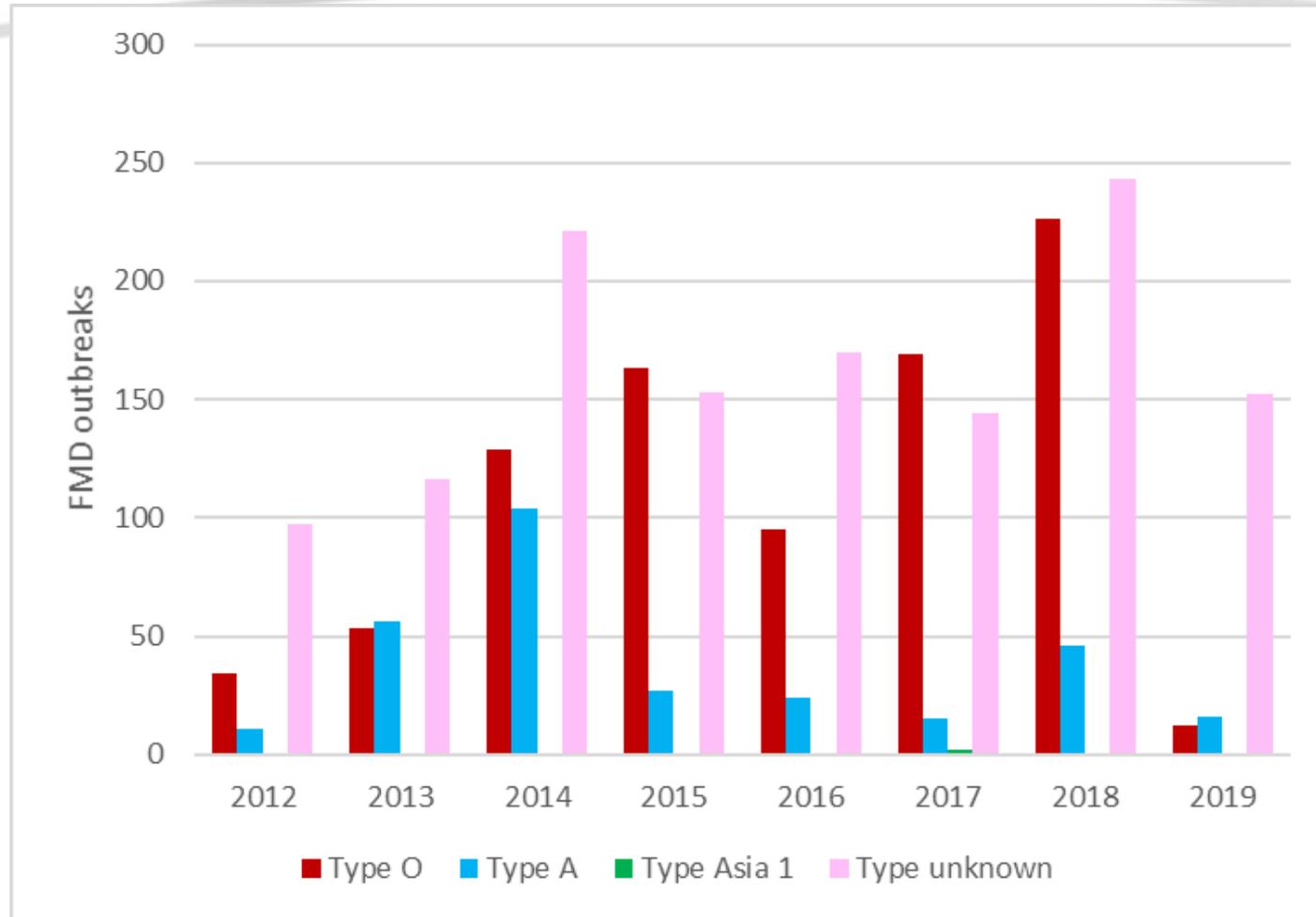
+: the FMDV lineage present in the country.

Note: data were based on the genotyping reports of the World Reference Laboratory for FMD (WRL), <http://www.wrl.vet.mcgill.ca/> and the National Reference Laboratory for FMD (NRL), <http://www.nrl.gov.vn/> and country reports presented at the 26th OIE SEACFMD Subcommission Meeting on 28-30 November 2018, in Ho Chi Minh City, Vietnam, and 22nd OIE SEACFMD National Coordinators Meeting held on 25-27 June 2019, in Ulaanbaatar, Mongolia.

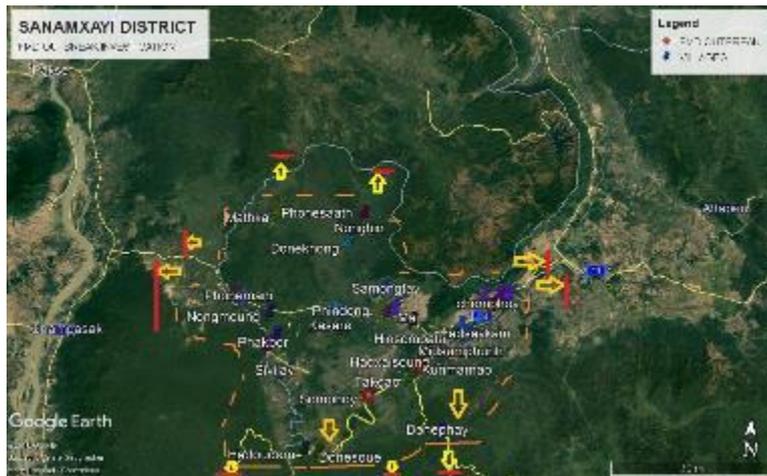
Serotype O continued to be the most prevailing serotype in 2018, with several lineages co-circulating. The Ind-2001 strain (a sublineage) was continuously reported in China, Malaysia, Mongolia, Myanmar and Thailand. As till the end of 2018, the Ind-2001 strain has been reported in all endemic SEACFMD countries except for Cambodia. Unfortunately, the traditional antigen ELISA typing technique used in Cambodia does not allow strain identification, and its inability to submit samples to the World/Regional Reference Laboratories in the past 2 years prevents in-depth viral characterisation.

Similar to previous years, all the detected serotype A viruses belong to the A/Asia/Sea-97 lineage. Importantly, a genetic drift Sea-97 was detected in the field outbreaks in Attapu province of Lao PDR. This variant shows <95% identity to any known Sea-97 viruses; however, the inability to isolate "live" FMDV for these cases excludes the possibility to characterise its antigenic property.

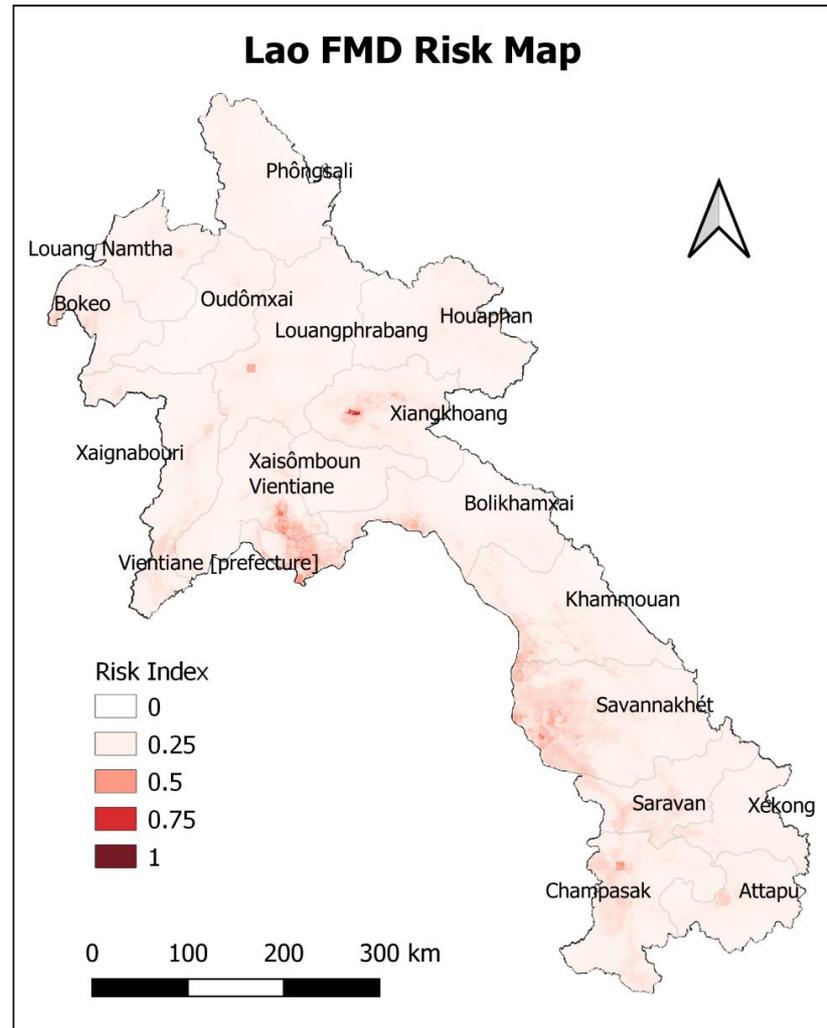
Temporal distribution of FMDV



Outbreak investigations and Emergency Response

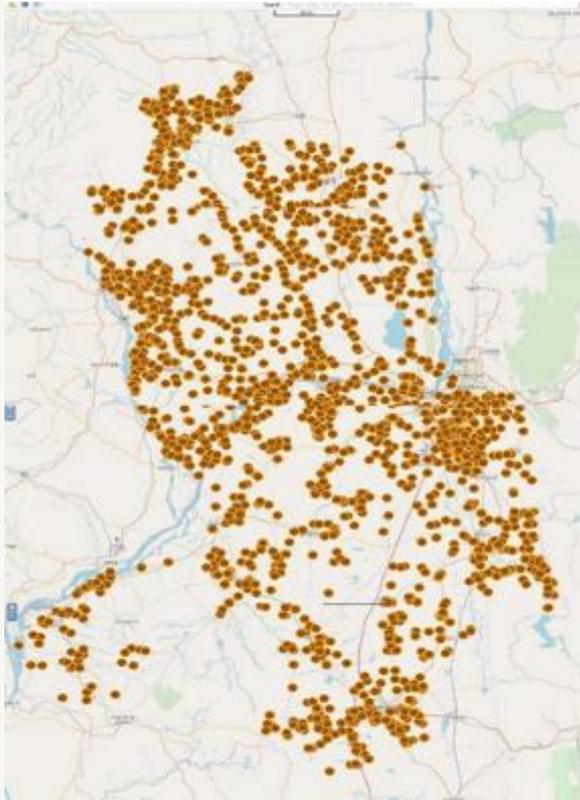


Spatial Risk Assessments

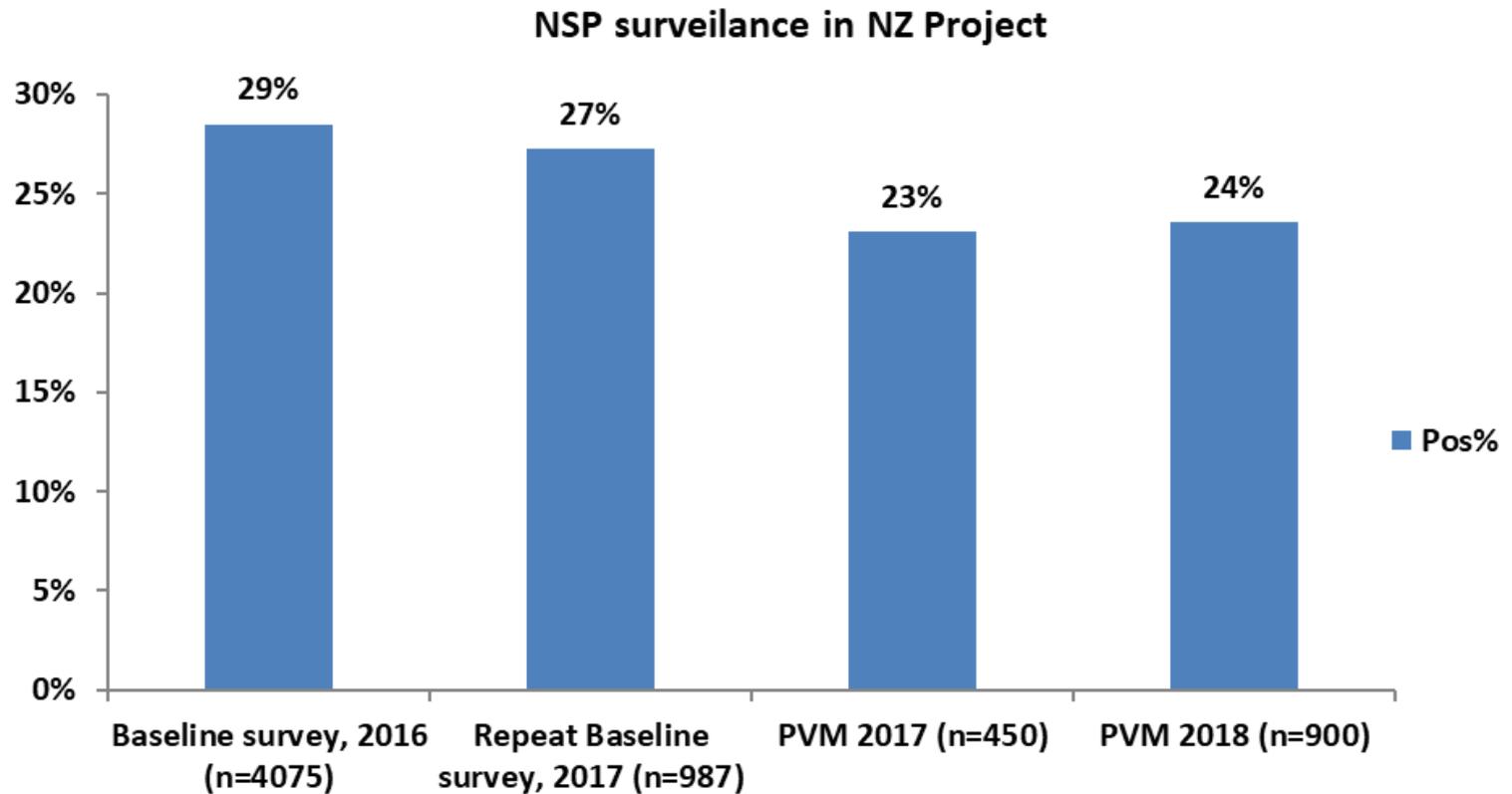


Myanmar Vaccination Campaigns

Vaccinated villages (n=1968)



Reduction of sero-prevalence



Communication and Advocacy

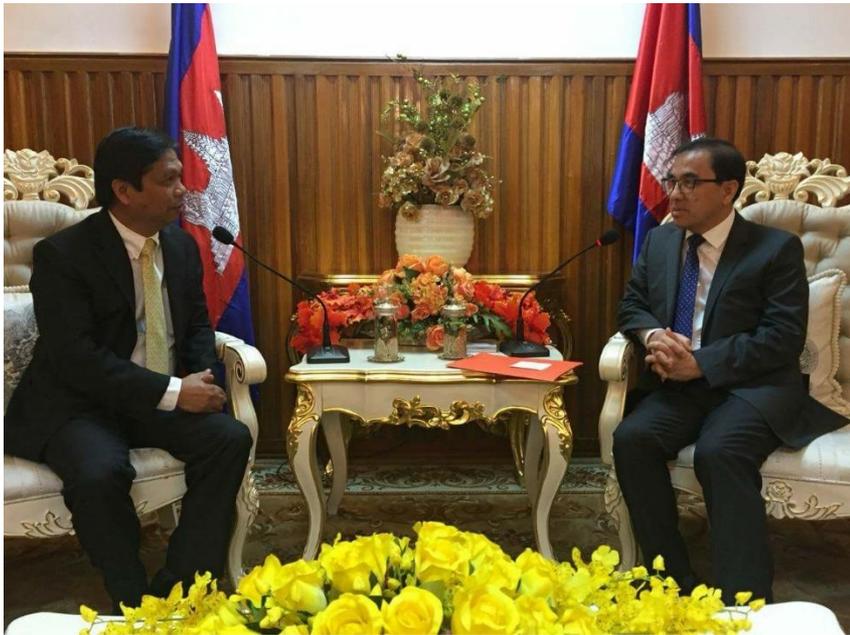


- Engagement with high level officials, Ministers, and with ASEAN, including updating the ASEAN/OIE MoU
 - Meet Minister of Cambodia AND Vice Minister of Vietnam
- Assist members to conduct FMD awareness campaigns and educational drives for promoting FMD control and prevention
- Advocacy for improved regulation of livestock movements in the region
 - Myanmar new legislation
- Promote country commitments and achievements with regards to FMD control

-

Meeting with Ministers

Cambodia



Vietnam



Coordination and Programme Management



- Organize Meetings of the 24th SEACFMD Sub-Commission, 20th National Coordinators, and Epidemiology and Laboratory Network.
 - Sub-Comm in November 2018
- Assist to advocate funding and implementation of the National FMD Plans in Cambodia, Lao PDR and Myanmar.
- Finalize and publish Manuals that complement the 3rd Edition of the SEACFMD Roadmap 2016-2020.
- Finalise and publish SEACFMD Research Direction Guidelines for 2016-2020.

Coordination and Programme Management



- Support the alignment of National FMD Plans of CLMV with SEACFMD Roadmap 2016-2020 and Global FMD Strategy
 - Risk-based Strategic Plans in Cambodia, Laos and Myanmar
- Support national self-assessment to review member's PCP level. Incorporate priority activities identified in the PCP assessment with the FMD National Plan
- Continue to promote and coordinate existing and potential resources from other partner agencies .
- Engage high-level policy-makers to support FMD control

Special Sub-Comm, Paris 2019



Key recommendations:

- short-term priorities and achievable objectives
- in agreement with the Global FMD control Strategy, the 7th OIE Strategic Plan
- Information sharing and transparency, OIE-WAHIS, early warning system
- Synergies with other TADs
- Livestock trade and animal movement
- Emergency preparedness

Special SEACFMD Sub-Commission

29 May 2019, Paris



Election of Sub-Commission Steering Committee

- President – Vietnam
- Vice - President – China
- Vice – President – Philippines
- Member - Myanmar
- Member –Thailand

National Coordinators Meeting, Ulaanbaatar, June 2019



National Coordinators Meeting, Ulaanbaatar, June 2019



- Review of the SEACFMD Roadmap
- Emergency Vaccination
- Surveillance in FMD Free countries
- PCP Assessments

Go to www.menti.com and use the code 24 46 89

In your opinion, what are the 3 key strengths of SEACFMD Campaign?

Collaboration

Organised structure

Regular platform to bring all member countries together to discuss FMD

Epidemiological and virological information sharing

Funding support

Information sharing

Provide technical support for the

Go to www.menti.com and use the code 24 46 89

Give 3 key objectives of SEACFMD that can be achieved realistically by 2025

Increased outbreaks reporting

Implement a reporting and surveillance program in every province

Organise Karaoke party at each and every meeting

Share virus information

Successful prevention of new introduction of FMDV serotype/strain into the region

Reduce FMD incidence

More free zones

less case

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14th Upper Mekong WG FMD Control

(Yunnan, China, 23-25 April 2019)



泰国-缅甸-中国水陆路径

Thailand-Myanmar-China Water and land pathway

Chiang Saen Port (Thailand) — Soley Port (Myanmar) — Damenglong (Jinghong City, China) Border

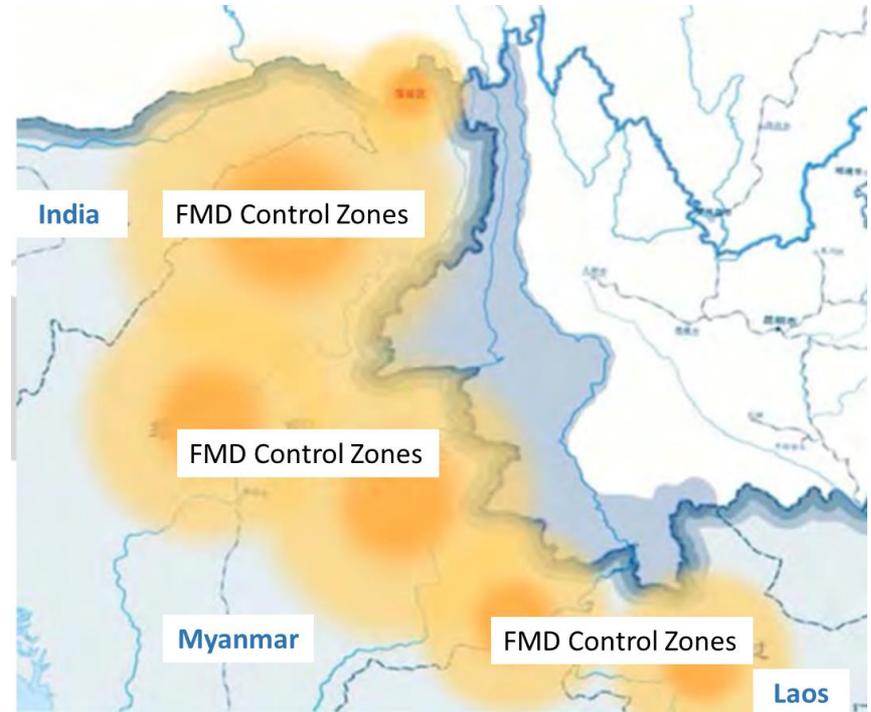


Source: Li huanchun, 2019

Proposed Trade Zones



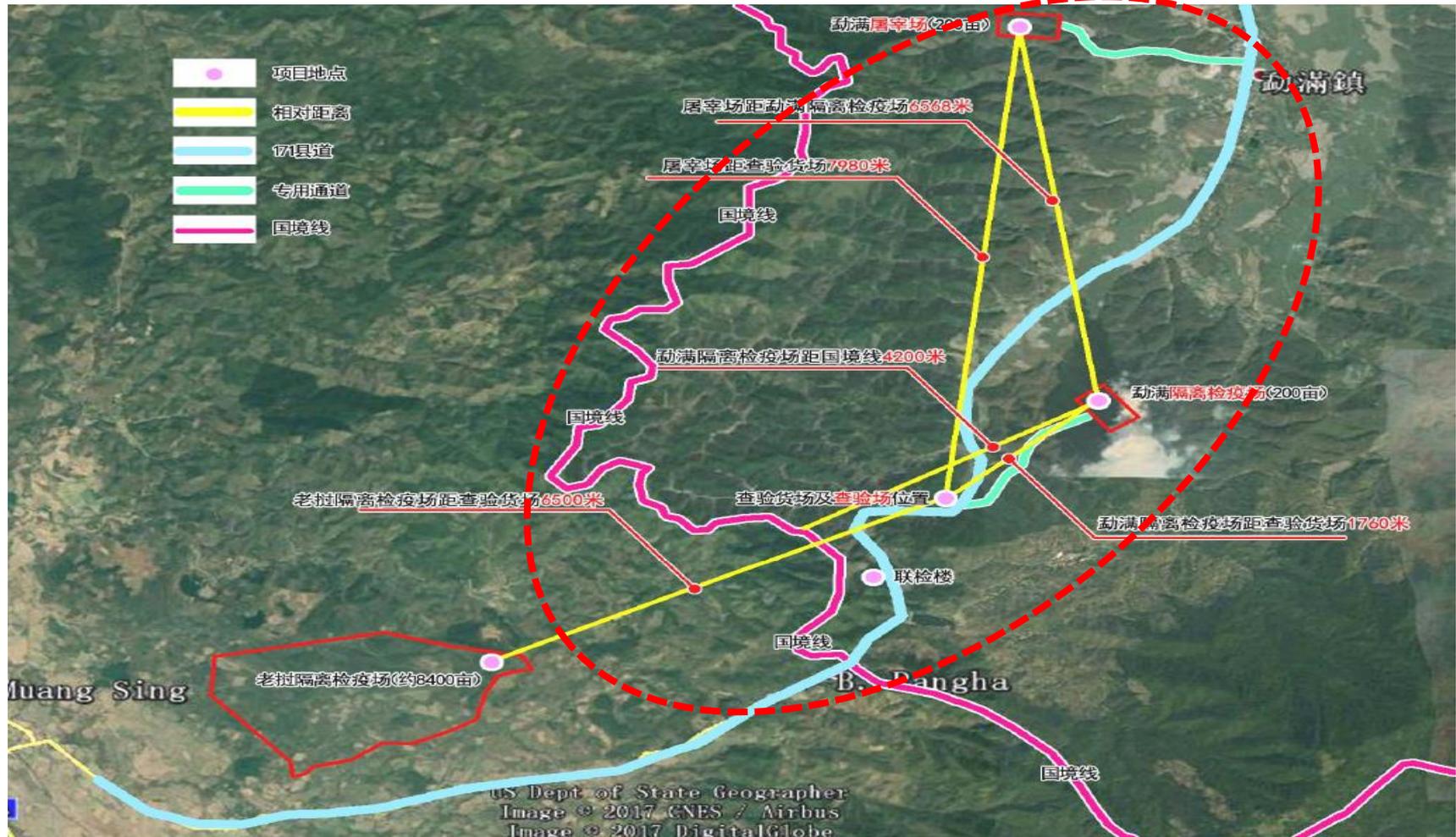
Pilot



Future

中老边境勐腊县试点区

China-Laos Border Quarantine and Slaughter Zone (Mengla- Luang Namtha)

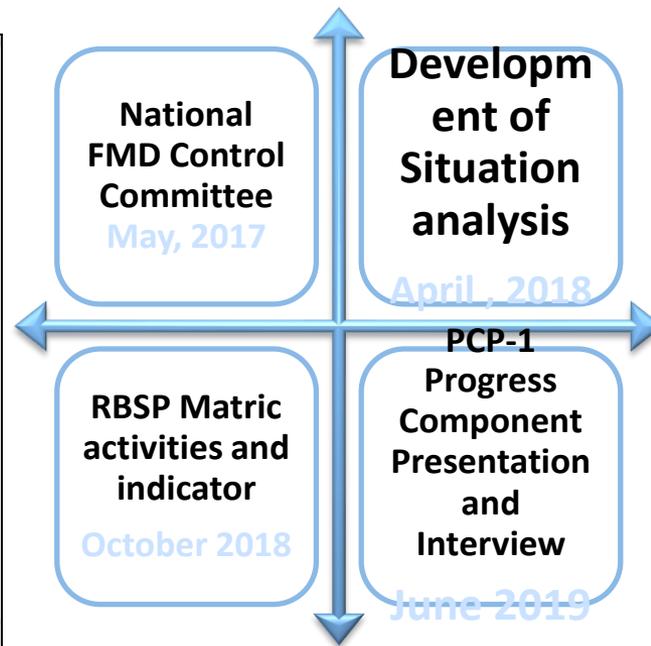


Source: Li huanchun, 2019

Building facilities along the border

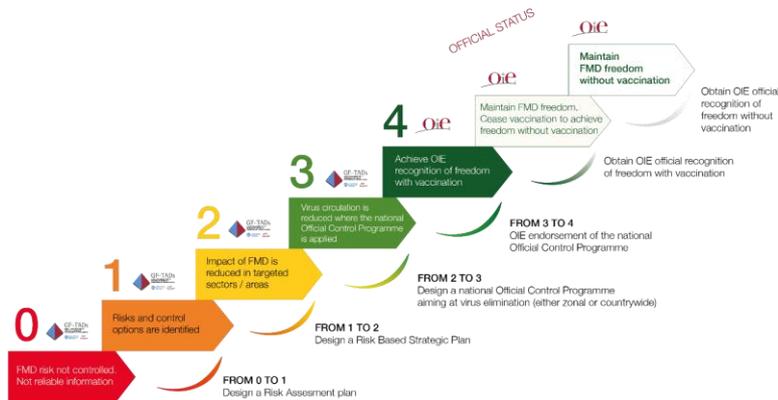


Lao PDR RBSP for FMD Control 2019- 2021



Myanmar RBSP for FMD Control

RISK-BASED STRATEGIC PLAN FOR CONTROL OF FOOT-AND-MOUTH DISEASE



Country name: Myanmar

Date of Submission: 2019

Version No.: June 2019 Final

Please submit your plan to the FAO and OIE FMD working group via email:

FAO-FMD@fao.org and OIE-FMD@oie.int

Progress of LabNet

Role of Laboratory Network (LabNet)



- Rapid diagnosis of FMD viruses
 - Early detection and confirmation of FMD virus serotypes
 - Use of appropriate vaccine strain
- Facilitate sending of field isolates to Ref. Labs.
- Strengthen surveillance
 - Molecular epidemiology
 - Mapping on the evolution of FMDV serotypes
- Monitoring vaccine efficacy

Role of Laboratory Network (LabNet)



- Capacity building on FMD diagnosis
 - Exchange visits of experts
 - Regular training programs
- Harmonization of diagnostic protocols
- Quality assurance system
- Facilitate research activities
 - Prioritize areas for research (eg. role of carrier)
 - Joint research studies
 - Develop proposals for possible funding

SEACFMD EpiNet/LabNet 2011



SEACFMD LabNet 2012



SEACFMD LabNet 2013



SEACFMD LabNet 2015



SEACFMD Labnet 2017



2017 LabNet Recommendations



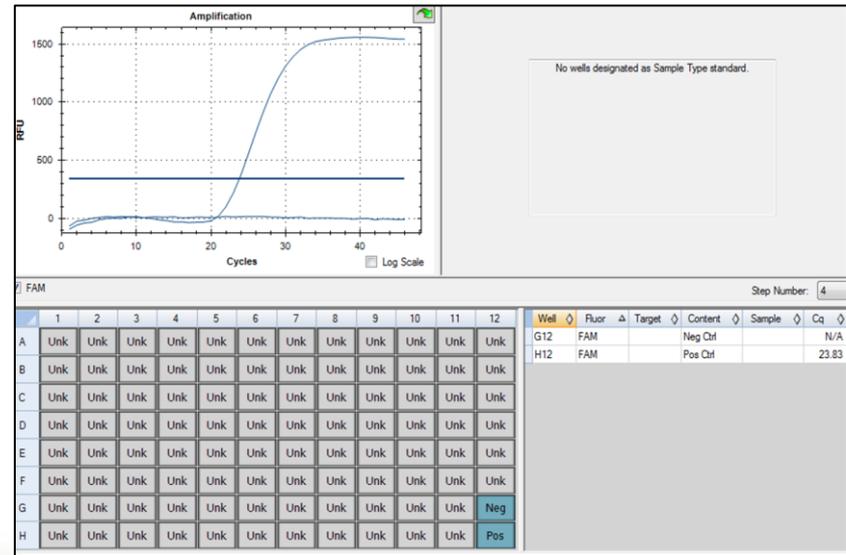
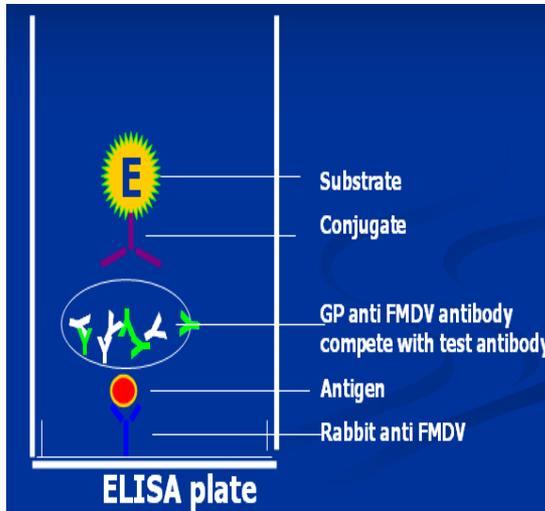
- Use of real-time RT-PCR to complement the antigen ELISA;
- NOTE the limitations of liquid-phase ELISA for measuring antibodies against FMDV ;
- Synergize resources (PCR) from various diagnostic units (e.g. HPAI)
- ENCOURAGE members to strengthen the laboratory capacity for early detection and to share/report information timely

2017 LabNet Recommendations



- Training programs to improve member's laboratory diagnostic capacities.
 - PCR and probang by Yunan lab
- AGREE to better clarify the objectives of each PT program.
- NOTE the updated SEACFMD research priorities for 2016-2020 and agree to implement laboratory-related research activities

Probang sampling and PCR training



2017 LabNet Recommendations



- ENCOURAGE members to monitor herd immunity by conducting routine PVM in accordance with the FAO/OIE Guidelines throughout the vaccination campaigns.

For discussion in 2019 LabNet



- Country progress in the use of PCR for routine FMD diagnosis
- Quality sample collection from the field and sample submission to national and international reference laboratories
- Interpretation of serology results from PVM and surveillance

Thank you for your attention!



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