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REPORT OF THE SEACFMD JOINT EPINET AND LABNET VIRTUAL MEETING



Virtual Meeting on 8th December 2022

WOAH SUB-REGIONAL REPRESENTATION FOR SOUTH-EAST ASIA (SRR-SEA)

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Acknowledgments

The WOAHA would like to thank all the participants from the Members and Partners who attended the SEACFMD EpiNet and LabNet meeting virtually, and in particular those participants who delivered presentations and who assisted in moderation of the interactive sessions.

The organization of this meeting and preparation of this report was coordinated by Bolortuya Purevsuren, Ashish Sutar, Karma Rinzin and Onsiri Benjavejbhaisan under close supervision of Ronello Abila.

Background

SEACFMD EpiNet and LabNet have become efficient platforms for Member countries to share experience in FMD epidemiology, surveillance, and data analysis and review the advanced tools for investigation and management. WOAHSRR SEA organized physical EpiNet and LabNet meetings in Indonesia in April 2018 and Thailand in November 2019, respectively. During the COVID-19 pandemic, WOAHSRR SEA facilitated a joint virtual EpiNet and LabNet meeting in February 2021.

To maintain the regional coordination of EpiNet and LabNet activities and support SEACFMD member countries to strengthen their capacity in FMD investigation and surveillance, WOAHSRRSEA organised the Virtual SEACFMD Joint EpiNet and LabNet meeting on 8th December 2022. The meeting provided an update on the latest FMD epidemiology, recommendations of the SEACFMD Governance meetings, application of advanced tools for data analysis, outbreak investigation, and lessons learned from the significant epidemiological changes in South-East Asia. (<https://rr-asia.woah.org/en/events/seacfmd-joint-epidemiology-and-laboratory-network-virtual-meeting/>)

Objective

The SEACFMD EpiNet and LabNet Meeting aimed to:

- Provide an update on the regional FMD epidemiological situation
- Share experiences in applying epidemiological tools in FMD prevention and control
- Enhance electronic access to technical resources through the SEACFMD Portal, SEACFMD toolbox and communication tools
- Identify future action points related to the EpiNet and LabNet activities to enhance FMD prevention and control.

Opening session

The SEACFMD Joint Epidemiology and Laboratory Network meeting was held on 8 December 2022 in virtual format with 54 registered participants composed of EpiNet and LabNet focal points, SEACFMD National coordinators, collaborating partners such as FAORAP, Australian Centre for Disease Preparedness (ACDP), Pakchong FMD Diagnostic Laboratory, and Lanzhou Veterinary Research Institute. WOAHS staff from Regional Representation for Asia and Pacific and Sub-Regional

Representation for South-East Asia, and representatives from National Veterinary Services also joined the meeting.

Dr Ronello Abila, WOAHS Sub-Regional Representative for South-East Asia, welcomed participants to the virtual meeting and emphasized the opportunity to discuss the FMD situation and diagnostic capabilities in the Region. He highlighted that the participants would review the recommendations from the SEACFMD Sub-Commission and National Coordinators' meetings and determine actions points to implement them.

Session II Regional epidemiological situation

Dr Karma Rinzin, Regional Animal Health Coordinator, WOAHS SRR SEA, provided updates and status of the implementations of the recommendations from the previous SEACFMD Governance meetings such as the SEACFMD Sub-Commission and National Coordinators' meetings. He reported on activities implemented under the SEACFMD Campaign, studies conducted for determining FMD risk factors, the feasibility of establishing animal price monitoring platforms, guidelines for national procurement of good quality veterinary vaccines, development of FMD communication materials, and the SEAFMD portal ([Presentation available here](#)).

Dr Bolortuya Purevsuren, Project Officer, WOAHS SRRSEA demonstrated the analysis of the Regional FMD situation using the PowerBI SEACFMD situation dashboard. The presentation focused on analysing FMDV serotypes and genotypes reported in Member countries based on the sample submitted to the WRLFMD, Pirbright Institute, UK. She noted the analysis and the data frequency for FMDV topotype and lineages, that were circulating in the region from 2015 to 2022. According to the analysis results, FMDV Serotype O is mainly responsible for FMD outbreaks in endemic countries. In contrast, Serotype A was reported frequently in Thailand, and Serotype Asia 1 has not been recorded since 2017 in Myanmar. O/ME-SA/PanAsia, SEA/Mya 98, O/CATHAY, ME-SE/Ind2001d and ME-SE/Ind2001e were isolated from 2015 to 2022; however, ME-SE/Ind2001d was introduced in the region in 2015 only, circulated for three consecutive years, then replaced by ME-SE/Ind2001e, which became the dominant lineage in the SEACFMD Region in the last five years. Other lineages were not isolated from the samples, which were tested at World Reference Laboratory. ([Presentation available here](#))

Dr Petrus Jansen van Vuren. Researcher, Australian Centre for Disease Preparedness gave a presentation that introduced research on developing novel diagnostic tools for emerging animal

diseases, including FMD, that would replace traditional serological methods in addressing current gaps. ([Presentation available here](#))

After the presentations, participants were divided into two breakout groups, one to discuss the key factors in predicting new incursions of FMDV (EpiNet group) and another to discuss the causes of the low rate of serotyping of circulating FMDV (LabNet group) and how to address those challenges which are exercised in the Miro platform. In a plenary session, the nominated rapporteur presented the results of each group's work output.

Session III Application of Epidemiological tool for FMD control

The next session focused on application of epidemiological tools for TADs control to conduct FMD studies. Within this context, Dr Leonara Tua, DVS Malaysia, shared their experience using Spatial Risk assessment with a multiple criteria decision analysis (MCDA) case study on behalf of the team who were trained on QGIS MCDA training organized by WAOH SRR SEA in collaboration with the Massey University. She explained how the MCDA and spatial risk assessment methodology were used for identifying risk pathways, availability of raw spatial data, rolling out a questionnaire for weighing the risk factor matrix and adding risk layers by QGIS for a result. ([Presentation available here](#))

The second presenter of this session was Dr Aung Tun, a Researcher at LBVD, Myanmar, who explained the methodology used in the cross-border risk assessment using ASF incursion as an example. . He illustrated how they identified major entry risk pathways for emerging diseases, the result of risk assessment followed by a practical recommendation on risk mitigation measures in the region. ([Presentation available here](#))

WAOH SRR SEA introduced digitalization activities, including the VDO instruction for the SEACFMD portal on SharePoint which participants can access and explore, as well as FMD awareness posters and videos targeting traders. ([Presentation](#), [VDOs](#) and [awareness available here](#))

Dr Ashish Sutar, Capacity Building Coordinator, WAOH SRR SEA, presented the result of the training assessment and needs analysis that had been conducted amongst member countries in 2022. Fifty one participants those who accomplished WAOH training has completed the survey representing 13 countries from SEA, and the Pacific. The survey confirmed that 98 % of the participants confirmed to gain the knowledge, and skills from these trainings including enhancement of technical knowledge, and improving skills, and level of confidence on training delivery, teamwork, time management. Furthermore, 39% of the survey respondents confirmed to use training resources following WAOH

trainings. The respondents identified future training needs including risk analysis, advanced GIS, outbreak investigation, emergency preparedness, and other epidemiological tools ([Presentation available here](#)).

Session IV Closing and way forward

Dr Bolortuya presented the draft recommendations of the meeting including and the priority actions discussed by the epidemiology and laboratory groups during the meeting, such as optimising the surveillance strategy, conducting a study on critical drivers of intensifying animal movements, improving prompt and accurate reporting, and encouraging sample submissions to reference laboratories and coordinating the participation in international laboratory validation scheme.

Dr Ronello Abila, WOAHA Sub-Regional Representative for South-East Asia, thanked the participants for their active participation and the presenters for their comprehensive presentations. He reiterated that the purpose of the meeting was to provide technical recommendations for veterinarians and other stakeholders in improving FMD control in the region. The recommendation and priority action points will be compiled and linked to the capacity-building activities.

The next meeting is scheduled to be an in-person meeting in CAHEC, China, if travel conditions allow participants to enter the country (recommendation is attached).

Recommendation

SEACFMD Joint Epidemiology (EpiNet) and Laboratory Network (LabNet)

Virtual Meeting 8 December 2022

Draft Recommendations

Considering:

- the recommendations of the 25th Virtual SEACFMD Sub-Commission Meeting held on 15 December 2020;
- the recommendations of the Joint Virtual EpiNet and LabNet Meeting held on 23 Feb 2021;
- the recommendations of the 24th Virtual National Coordinators Meeting held on 29 – 30 July 2021;
- the recommendations of the 26th Virtual SEACFMD Sub-Commission Meeting held on 16 to 18 March 2022;
- the recommendations of the 25th SEACFMD National Coordinators Meeting held in Bali, Indonesia from 3 to 5 October 2022;
- existing FMD status of the SEACFMD member countries including FMD PCP stages and FMD situation at the global and regional level;
- the recent incursion of FMD in previously FMD free country;
- the incursion and spread of new FMDV strains in SEACFMD region;
- low rate of sample collection and virus typing during the FMD outbreaks by the Members;
- the importance of timely detection and reporting of FMD outbreaks.

The participants in the Joint EpiNet and LabNet meeting held virtually on 8 December 2022 made the following recommendations to enhance FMD prevention and control.

1. NOTE the critical epidemiological changes in the SEACFMD Region with analysis of the FMDV toposotype and lineage distribution. O/ME-SA/ Ind 2001e strain has become dominant in the SEACFMD region since 2019 and caused a recent incursion in Indonesia in 2022.
2. NOTE the challenges faced by the Members to predict FMD incursion in disease-free countries and introduction and spread of new FMDV strains in endemic countries and AGREE to conduct a study to identify the critical risk drivers for FMD spread, such as animal movements linked to price changes and cultural festivals.

3. NOTE that prompt and accurate FMD reporting is crucial to predict FMDV spread and AGREE to improve better networking and transparent sharing of information to mitigate spread of FMDV.
4. NOTE the challenges for national animal health surveillance systems and AGREE to optimize surveillance systems, including strategic sampling, and to improve quality sample submission to reference laboratories for virus sub-typing to better understand FMDV circulation and FMD control strategies.
5. NOTE the challenges to national diagnostic laboratories and that their needs in assessing quality assurance systems extend to participating in international validation panels. WOAHA will coordinate discussions with Reference laboratories in support of reference protocols and controls.
6. AGREE to conduct a regional study to identify Asia1 status in the region and assess new incursion risks from neighboring regions.
7. NOTE that various epidemiological tools, such as spatial risk assessment using MCDA methodology, and cross-border risk assessment, can be used to further analyze the epidemiology of FMD outbreaks in the region to better support prevention and control of FMD.
8. NOTE the number of IEC materials developed by WOAHA SRRSEA and AGREE to use these communication tools for public awareness campaigns to get better support from farmers and other stakeholders in the prevention and control of FMD. If Member countries request, WOAHA will support the translation of those communication materials into local languages.
9. NOTE the findings of the training needs assessment survey; AGREE that WOAHA will plan and implement future training programmes taking into consideration the assessment findings and needs of the members to strengthen capacities in FMD and other TADs prevention and control.

Annexes

Annex 1 Meeting agenda

SEACFMD Joint EpiNet and LabNet Virtual Meeting 8 December 2022

VIRTUAL MEETING

Time	Topics	Speakers/ Responsibility
Session 1 : Opening		
14.00-14.05	Opening remarks Remarks by WOH SRR SEA	Dr Ronello Abila, WOH SRR SEA
Session 2: Regional epidemiological situation		
14.05-14.15	Epidemiological situation in region	WOAH SRR SEA
14.15-14.25	Available FMD laboratory diagnostic tools (molecular diagnostic)	ACDP TBC
14.25-15.00	Break out session EpiNet, LabNet	WOAH SRR SEA Participants
15.00-15.15	Plenary session	
15.15-15.20	Virtual Break	
Session 3: Application of Epidemiological tool for FMD control		
15.20-16.10	Application of epi-tools in practice: <ul style="list-style-type: none">- Multi Decision Criteria Analysis (MCDA) Epidemiological study design- Rolling Questionnaire for Regional Risk factors ranking- Cross border Risk assessment- Result of training survey	Malaysia WOAH SRR SEA Myanmar WOAH SRR SEA
16.10 -16.20	SEACFMD portal <ul style="list-style-type: none">- Digitalized communication materials	Video instruction WOAH SRR SEA
Session 4: Closing and way forward		
16.30	Closing remarks	Dr Ronello Abila, WOH SRR SEA

Annex 2 Participant list

No	Name	Country	Organization
1	Petrus-Jansen van Vuren	Australia	Research Scientist,CSIRO
2	Hamsiah-Mohd Saat	Brunei Darussalam	Head Section of Veterinary Laboratory,Department of Agriculture and Agrifood
3	Raihan-Zuhairah binti Haji Zulkifli	Brunei Darussalam	Department of Agriculture and Agrifood
4	Dina-KOEUT	Cambodia	Epidemiological staff,NAHPRI
5	Bunnary-Seng	Cambodia	Head of Virology,National Animal Health and Production Research Institute
6	Lim-Socheat	Cambodia	Vice Chief of Office of Slaughterhouse and Processing,General Directorate of Animal Health and Production
7	Chhim-Vutha	Cambodia	Epidemiology officer,NAHPRI
8	Wen-Dang	China	Associate researcher,Lanzhou Veterinary Research Institute
9	Xiangtao-Liu	China	Prof.,Lanzhou Veterinary Research Institute
10	Jianhong-Guo	China	Prof.,Lanzhou Veterinary Research Institute
11	Jijun-He	China	prof.,Lanzhou Veterinary Research Institute
12	Weimin-Ma	China	Associate researcher,Lanzhou Veterinary Research Institute
13	Wei-Zhang	China	Associate researcher,Lanzhou Veterinary Research Institute
14	Quangang-Xu	China	,CAHEC
15	Rince Morita-Butar Butar	Indonesia	Senior Veterinary Officer,Directorate of Animal Health
16	Tyas Dwi-Utami	Indonesia	Staff - Directorate of Animal Health,Ministry of Agriculture
17	Sapto Rini-Budi P	Indonesia	Coordinator of quality testing and product development,Veterinary Biological Center (Pusat Veteriner Farma)
18	Dwi Kurnia-Lestari	Indonesia	Sub Coordinator of Quality control,Pusvetma, Ministry of Agriculture Republic Indonesia
19	Rosmalina Sari Dewi-Daulay	Indonesia	Medik Veteriner,PUSVETMA
20	Dewi-Noor Hidayati	Indonesia	Sub coordinator of Product and Development Section,Pusvetma
21	Ferra-Hendrawati	Indonesia	Medik Veteriner,Pusat Veteriner Farma
22	Hnin Thidar-Myint	Japan	Regional Project Coordinator,World Organisation for Animal Health
23	Laphinh-PHITHACTHEP	Lao People's Democratic Republic	,Department of Livestock and Fisheries

24	Phouvong-Phommachanh	Lao People's Democratic Republic	,NAHL, DLF
25	Jamaliah-Senawi	Malaysia	Veterinary officer,Department of veterinary service
26	Norzufikal-binti Zulkifly	Malaysia	Veterinarian,Department of Veterinary Services Malaysia
27	NIK HAMIDAH-NIK HUSIN	Malaysia	Veterinary Officer,DVS Malaysia
28	Syakirah-Hashim	Malaysia	Veterinary Officer,DVS
29	Leonora-Tuah	Malaysia	,Department of Veterinary Services
30	Erdenesaikhan-Tegshduuren	Mongolia	Officer for disease diagnosis and surveillance,General Authority for Veterinary Services
31	Khishgee-Bodisaikhan	Mongolia	Officer,General Authority for Veterinary Services
32	Win-Myint	Myanmar	Dy Director,LVBD
33	Khin San Thar-Win	Myanmar	Research Officer,Livestock Breeding and Veterinary Department
34	Soepyaе-San	Myanmar	SEACFMD,Livestock Breeding and Veterinary Department
35	Samuel Joseph-Castro	Philippines	Veterinarian IV,Department of Agriculture Bureau of Animal Industry
36	Daphne-Rhea	Philippines	Veterinarian,Bureau of Animal Industry
37	Arlene Asteria-Vytiaco	Philippines	,Bureau of Animal Industry
38	Zhan Pei-Heng	Singapore	Veterinarian,National Parks Board
39	Christine-Lee	Singapore	Senior Veterinarian,NParks
40	Oi Wing-Ng	Singapore	Scientist,National Parks Board (NParks)
41	Paolo-Motta	Thailand	,FAO RAP
42	Kingkarn-Seeyo	Thailand	Veterinary Officer,RRL FMD Pakchong
43	Bolortuya-Purevsuren	Thailand	Project officer,WOAH
44	Ronello-Abila	Thailand	Sub-Regional Represebtative,SRR SE Asia
45	Ashish-Sutar	Thailand	Capacity Building Coordinator,WOAH
46	Tosapol-Dejyong	Thailand	Veterinarian (Professional level),Department of Livestock Development
47	Sith-Premashtira	Thailand	Veterinarian,DLD
48	Onsiri-Benjavejbhaisan	Thailand	Finance Officer,WOAH SRR SEA
49	Karma-Rinzin	United States	RAHC,WOAH SRRSEA
50	Trần Quốc-Phong	Vietnam	Epidemiology,Department of Animal Health Việt Nam
51	Hang-Vo	Vietnam	,RAHO7
52	Vuong-Tran Trong	Vietnam	Lab Staff,RAHO4
53	THUY-NGUYEN THI THANH	Vietnam	laboratory staff,RAHO1
54	AN-HA TAN	Vietnam	Technical staff,Regional Animal Health Office No.7 - Department of Animal Health-Viet Nam