



World Organisation
for Animal Health
Founded as OIE

Regional FMD Situation

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SEACFMD Joint EpiNet and LabNet Virtual meeting

8 December 2022

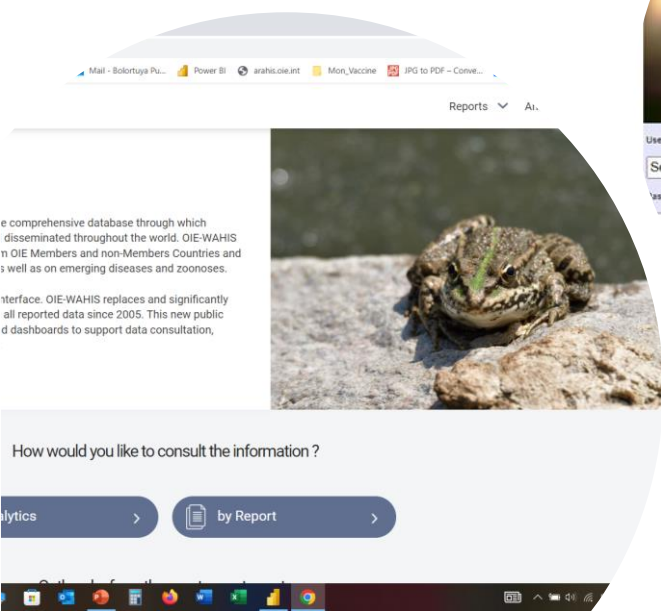
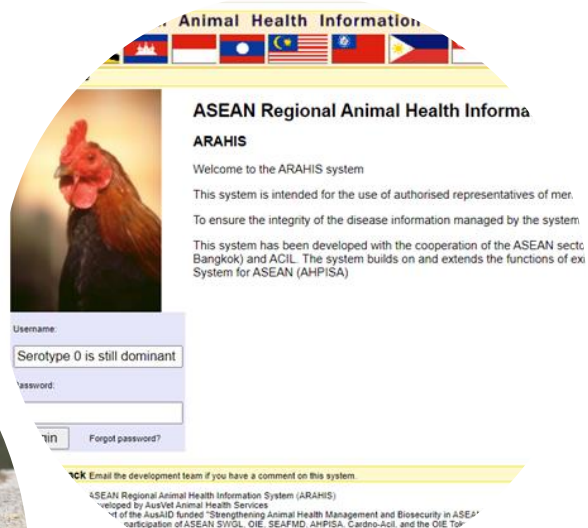


Power BI



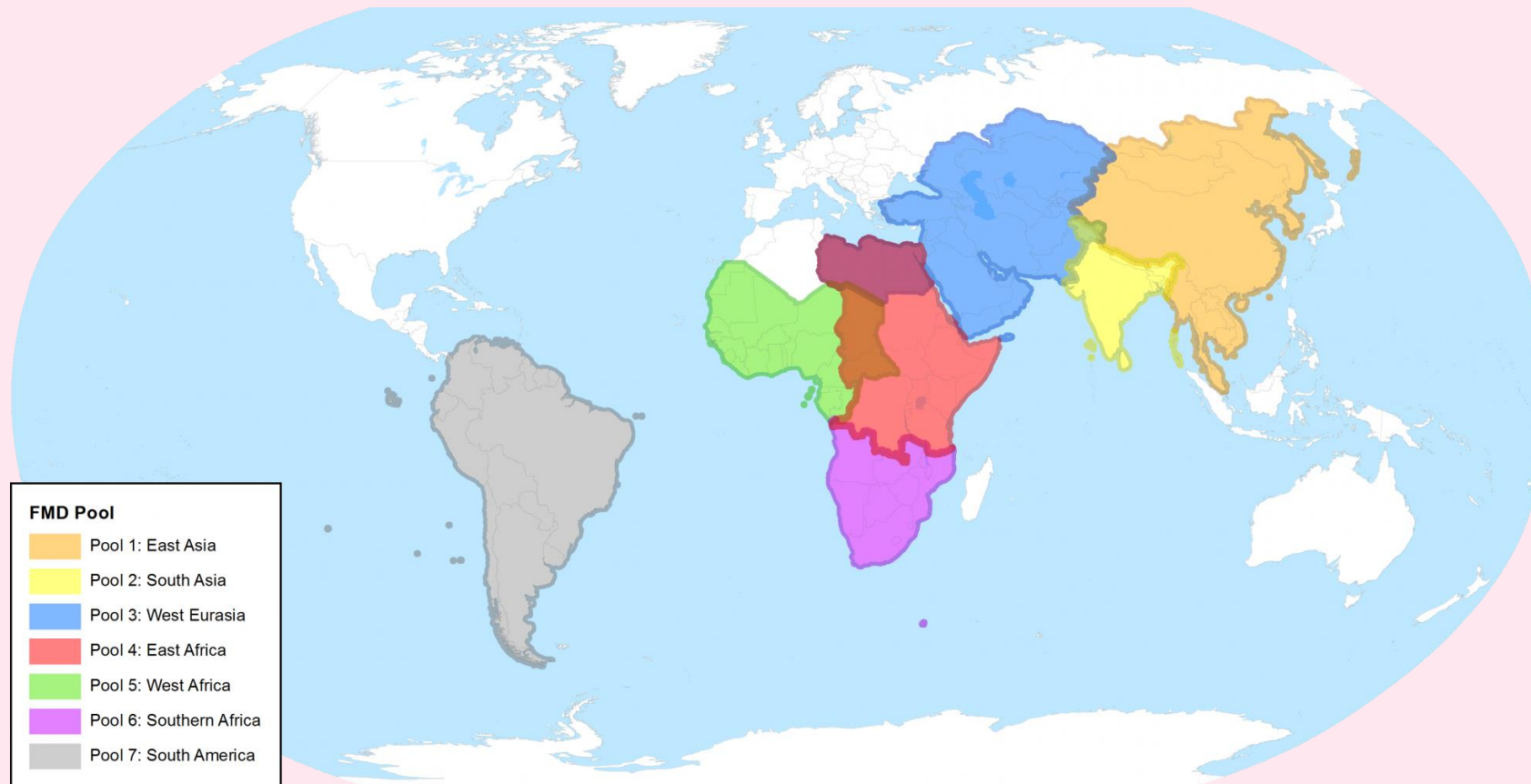
Outline

- Brief illustration of the outbreak data
- Main epidemiological changes
 - Serotype/Lineage
- Discussion & Conclusion





Distribution of the seven endemic pools of Foot-and-Mouth Disease



Virus Pool 1

O

- *Mya-98*
- *Pan-Asia*
- *Cathay*
- *Ind-2001*

A

- *Sea-97*

Asia 1



REGIONAL FMD SITUATION



FMD OUTBREAK

Total cases

1432

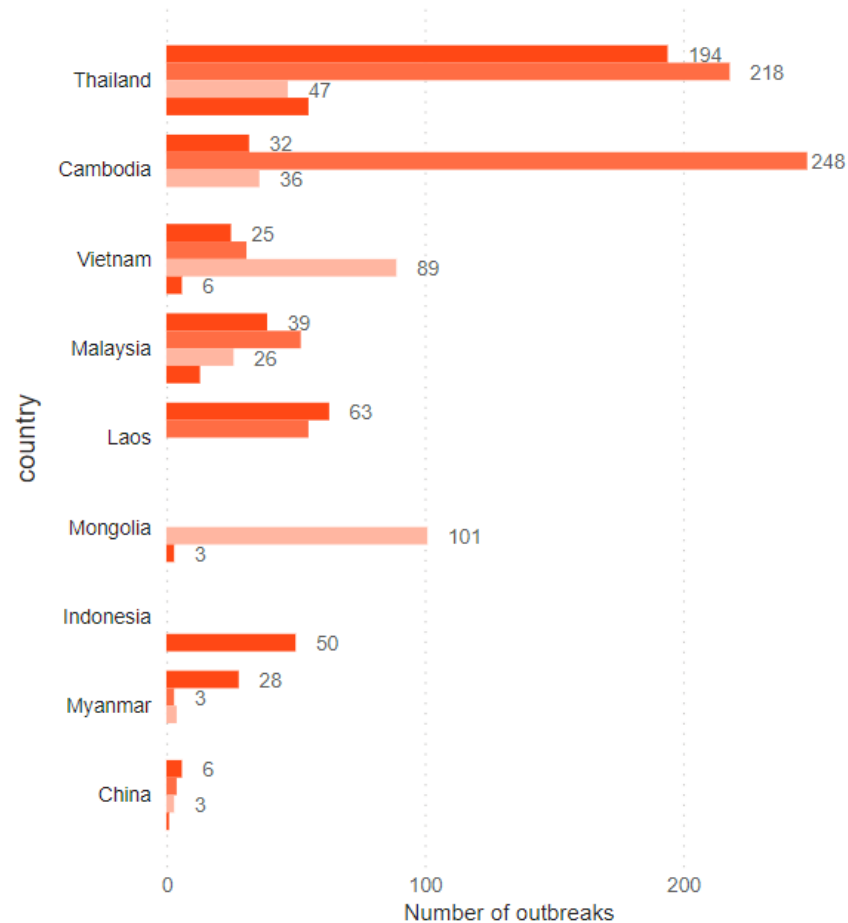
Year ● 2019 ● 2020 ● 2021 ● 2022

Year

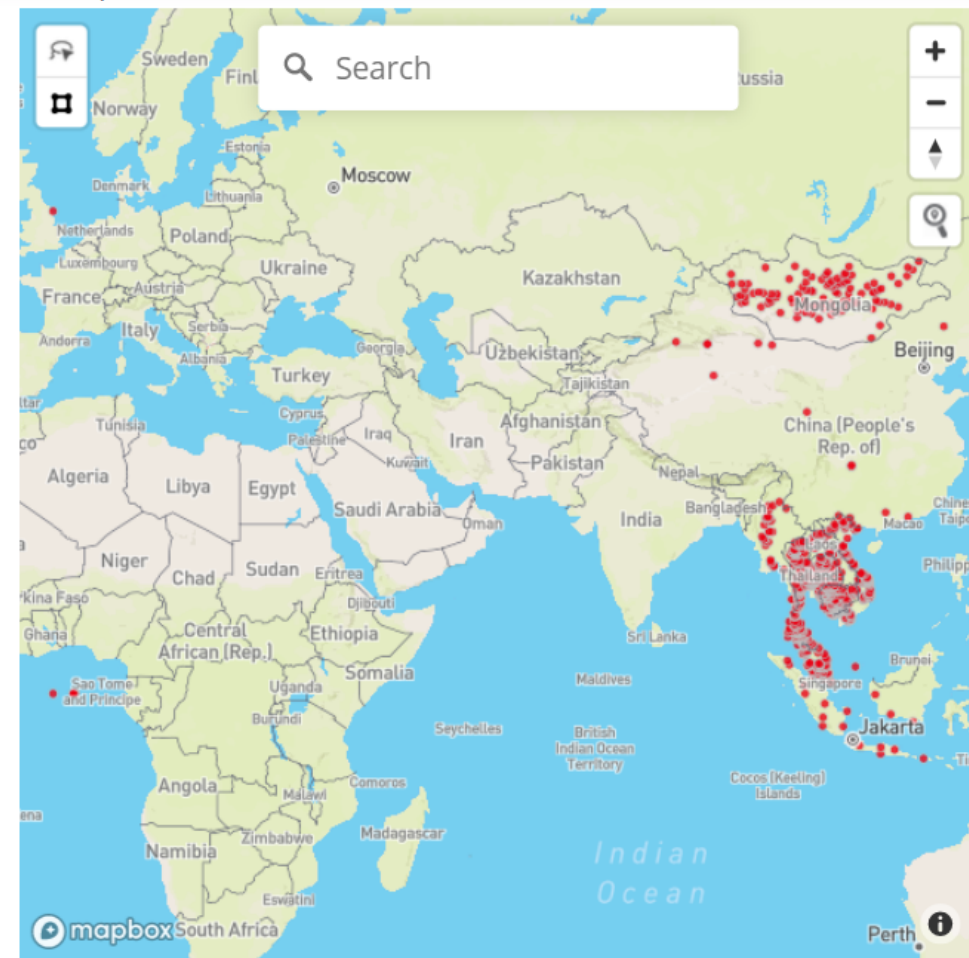
- 2019
- 2020
- 2021
- 2022

Country

- Cambodia
- China
- Indonesia
- Laos
- Malaysia
- Mongolia
- Myanmar
- Thailand
- Vietnam



FMD spatial distribution





FMDV Genotype



1403

Available data

517

Otype

55

Atype

344

Not Typed

487

Not Sampled

genotype ● A ● Not Sampled ● Not Typed ● O

WRL Sample submission

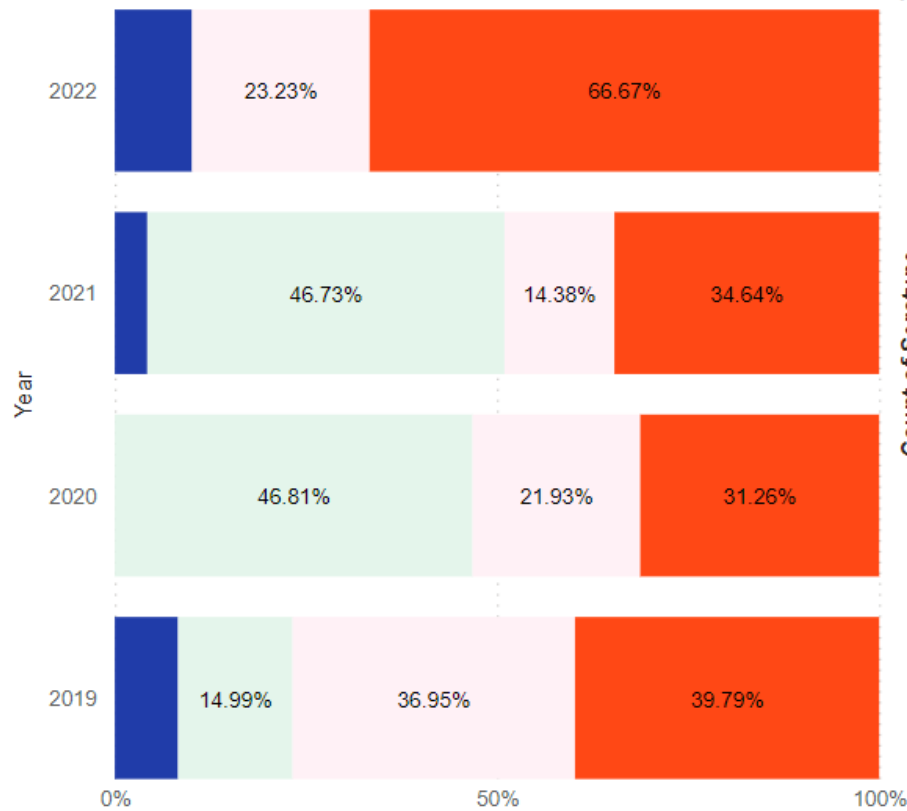
Report year ● 2015 ● 2016 ● 2017 ● 2018 ● 2019 ● 2020 ● 2021 ● 2022

Year

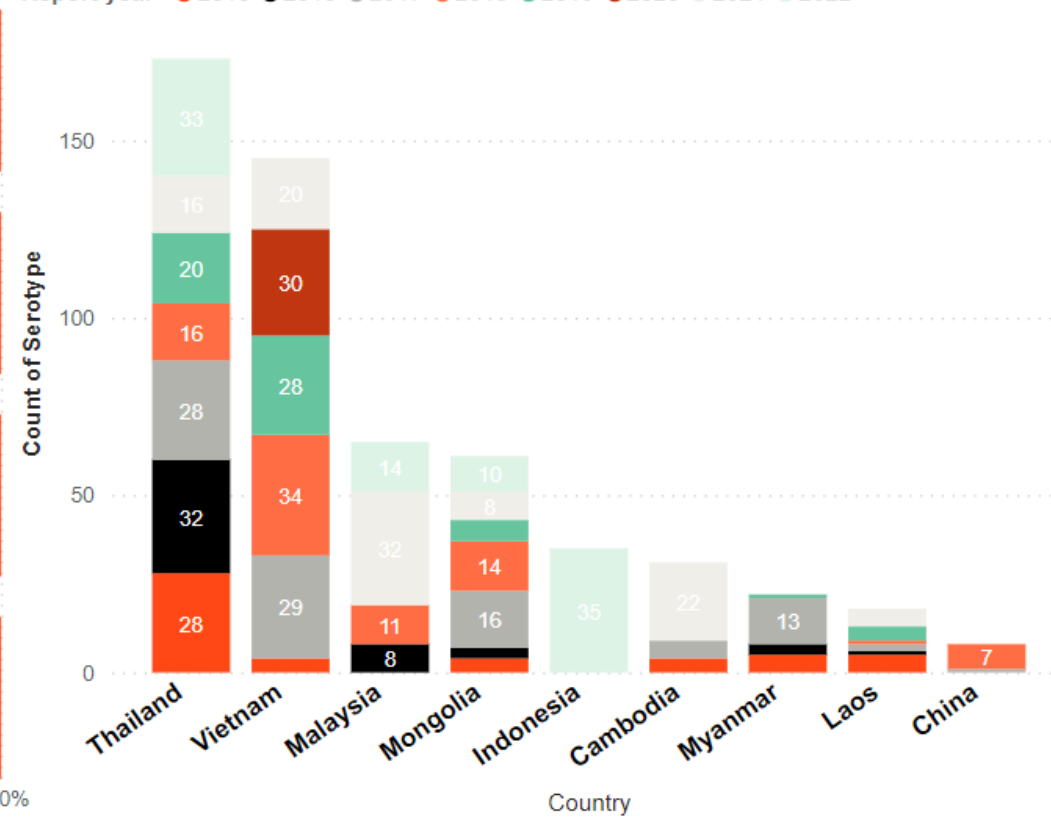
- 2019
- 2020
- 2021
- 2022

Country

- Cambodia
- China
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- Laos
- Malaysia
- Mongolia
- Myanmar
- Thailand
- Vietnam



Data source: Country reports

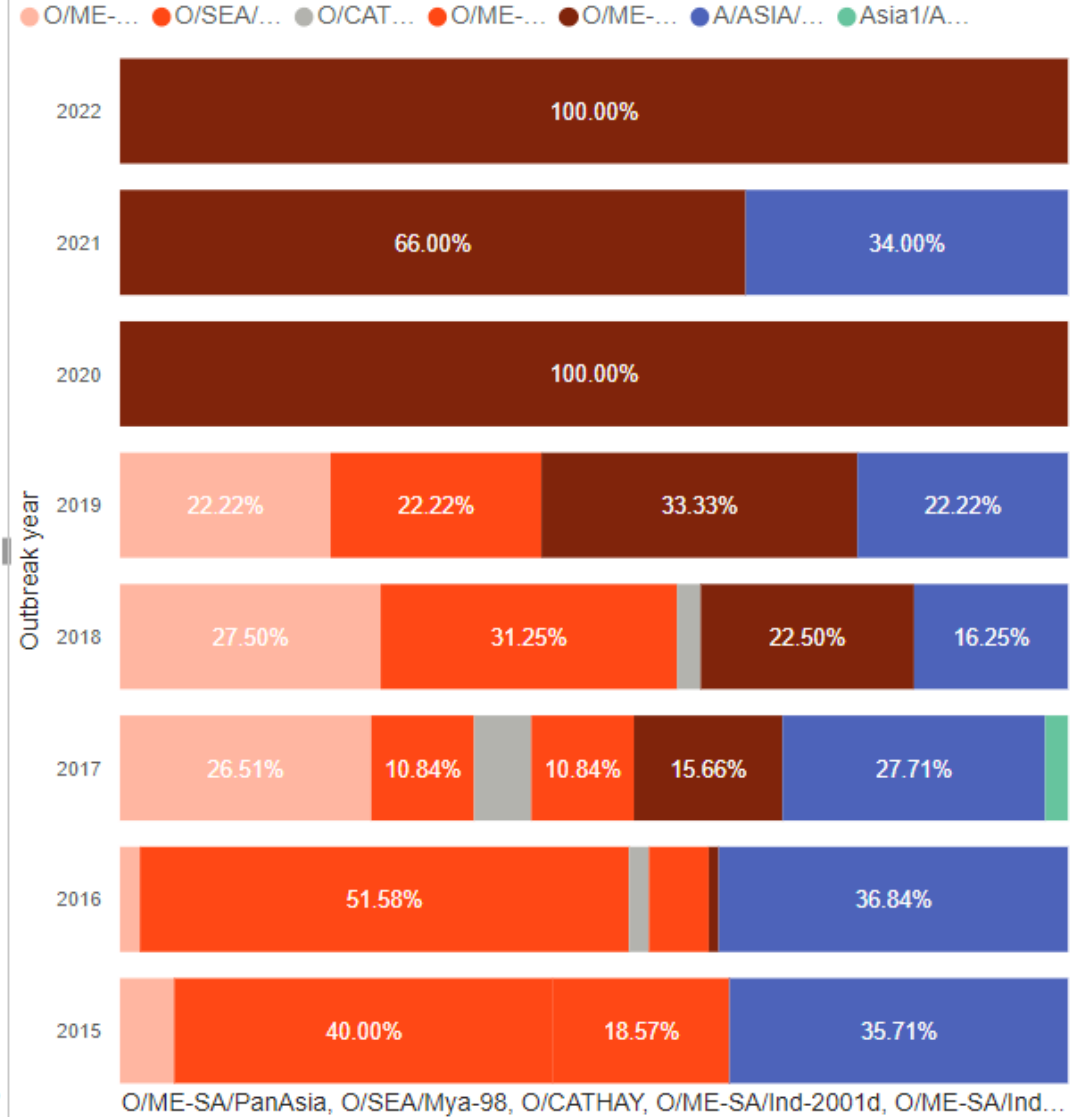
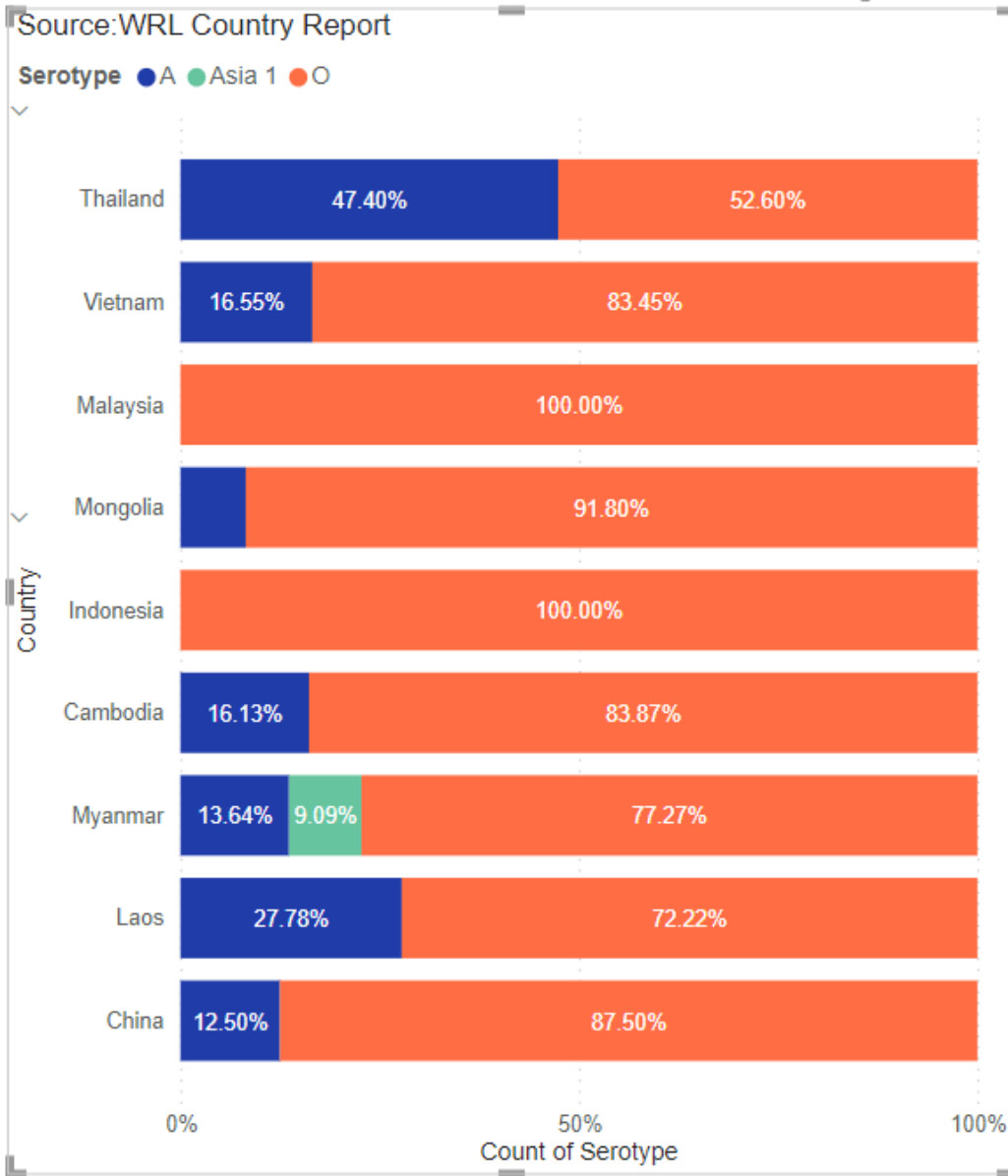


Data source: WRL Report

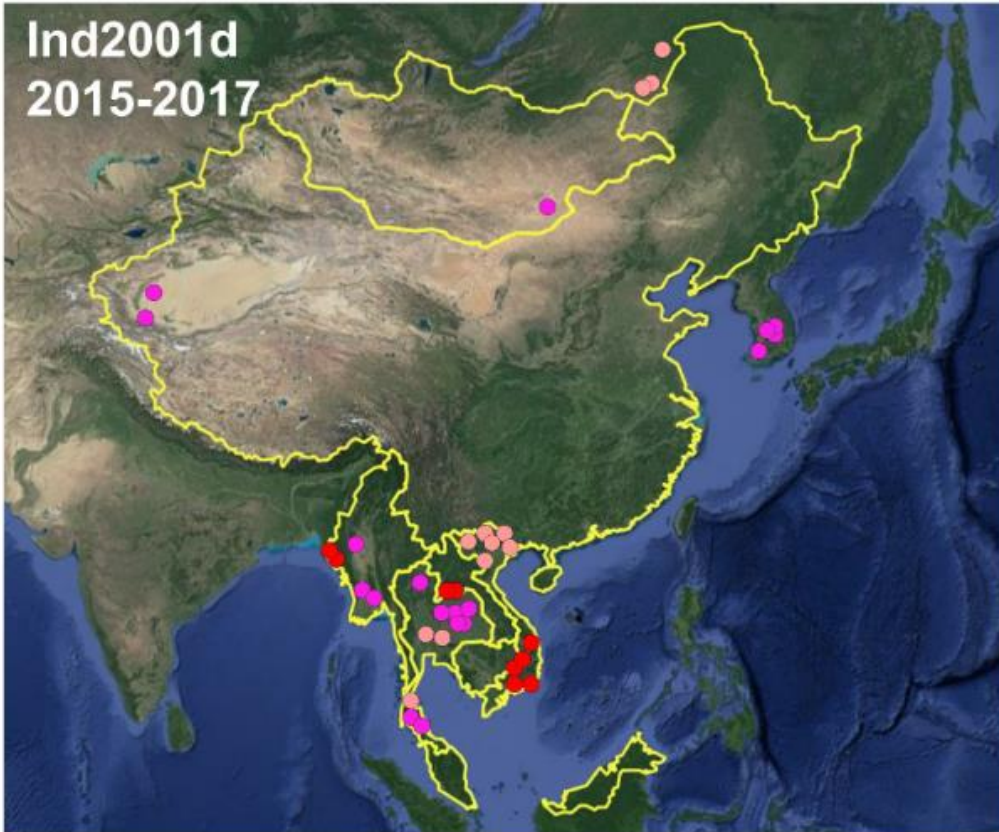


FMDV SEROTYPE

FMDV TOPOTYPE/LINEAGE



- Country
- Cambodia
 - China
 - Indonesia
 - Laos
 - Malaysia
 - Mongolia
 - Myanmar
 - Thailand
 - Vietnam
- Outbreak year
- 2015
 - 2016
 - 2017
 - 2018
 - 2019
 - 2020
 - 2021
 - 2022



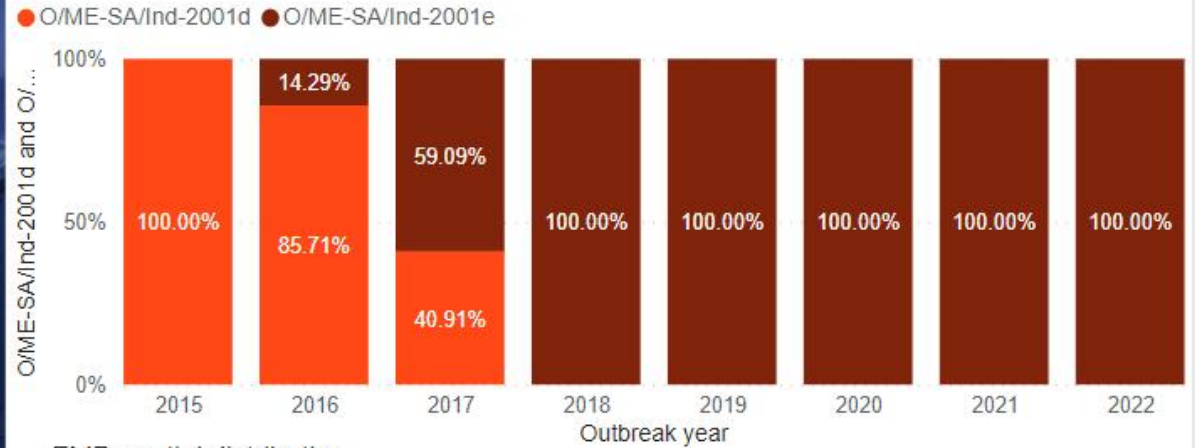
O/ME-SA/Ind2001d

2015- Laos, Myanmar (isolated 2016), Vietnam
 2016- Thailand, Vietnam
 2017- Myanmar, China, Mongolia, Korea and Russia

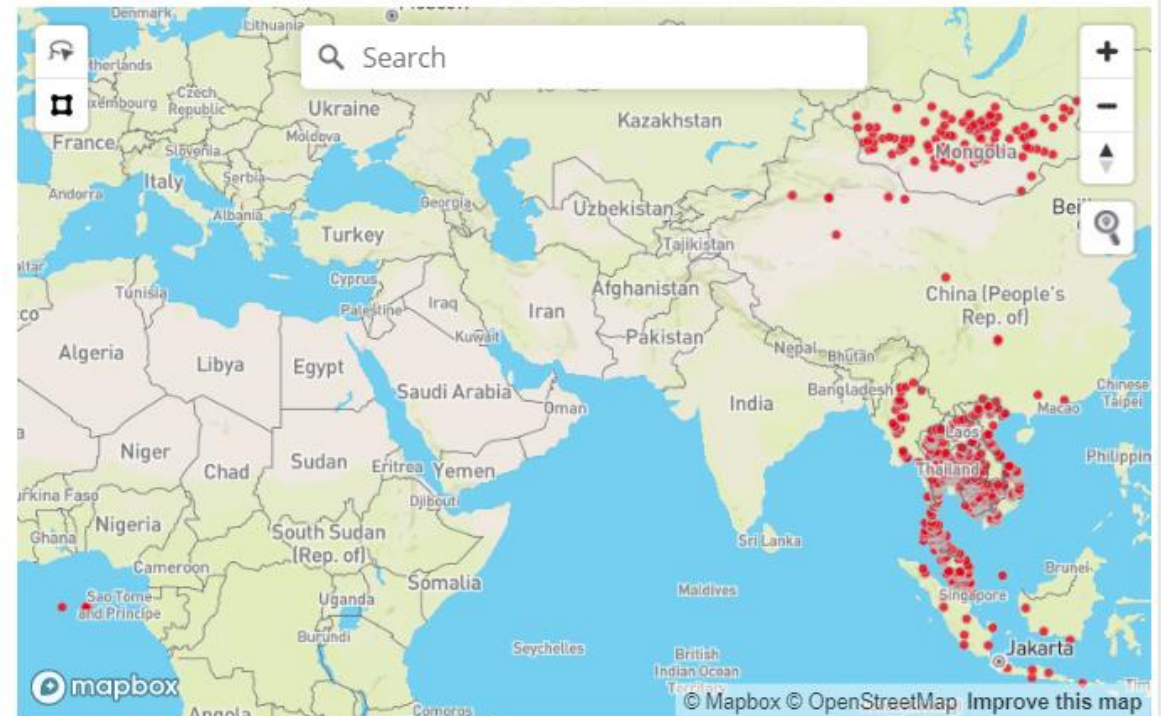
O/ME-SA/Ind2001e

2016- Malaysia
 2017- Malaysia, Vietnam, Thailand
 2018 - Mongolia, Myanmar, Thailand and Chinacontinues

O/ME-SA/Ind-2001d and O/ME-SA/Ind-2001e by Outbreak year



FMD spatial distribution





Main epidemiological changes:

- Number of outbreaks declined – COVID-19 impact
- Serotype Asia 1 not reported since 2017 (Myanmar)
 - New incursion
- PanAsia and Mya98 have not been isolated since 2019
- Pool 2-India reported Asia1 in 2021
- Serotype A frequently circulates in Thailand-Re-active since 2019
- Serotype O:
 - Ind2001e become dominant since 2019
 - Ind2001d not reported since 2018

sequence	virus name	Host	% Id.	# Ambig.	serotype	topotype	lineage	subli
viba_32008	BAN GA Sr-187 2013	cattle	97.6	0	Asia1	ASIA	G-VIII	
viba_32692	IND400(822)/2012	cattle	97.3	0	Asia1	ASIA	G-VIII	
viba_32708	IND413(852)/2012	cattle	97.3	0	Asia1	ASIA	G-VIII	
viba_19576	IND/283/2012	cattle	97.1	0	Asia1	ASIA	G-VIII	
viba_32664	IND119(223)/2012	cattle	97.1	0	Asia1	ASIA	G-VIII	
viba_19556	IND/118/2012	cattle	97.1	0	Asia1	ASIA	G-VIII	
viba_32724	IND118(222)/2012	cattle	97.1	0	Asia1	ASIA	G-VIII	
viba_19568	IND/121/2012	cattle	97.1	0	Asia1	ASIA	G-VIII	
viba_19540	IND/16/2012	cattle	97.1	0	Asia1	ASIA	G-VIII	
viba_19596	IND/294/2012	cattle	97.1	0	Asia1	ASIA	G-VIII	



- Study Asia 1
 - Data review
 - Regional surveillance (support MCs)
- Complete Regional genotype data set/Mapping
 - Support MCs- geoinformation
- Encourage sample submission to WRL/RR
- Rationalise sampling vs serotyping
- Finalise simple Molecular diagnostic algorithm/pilot testing



Thank you

