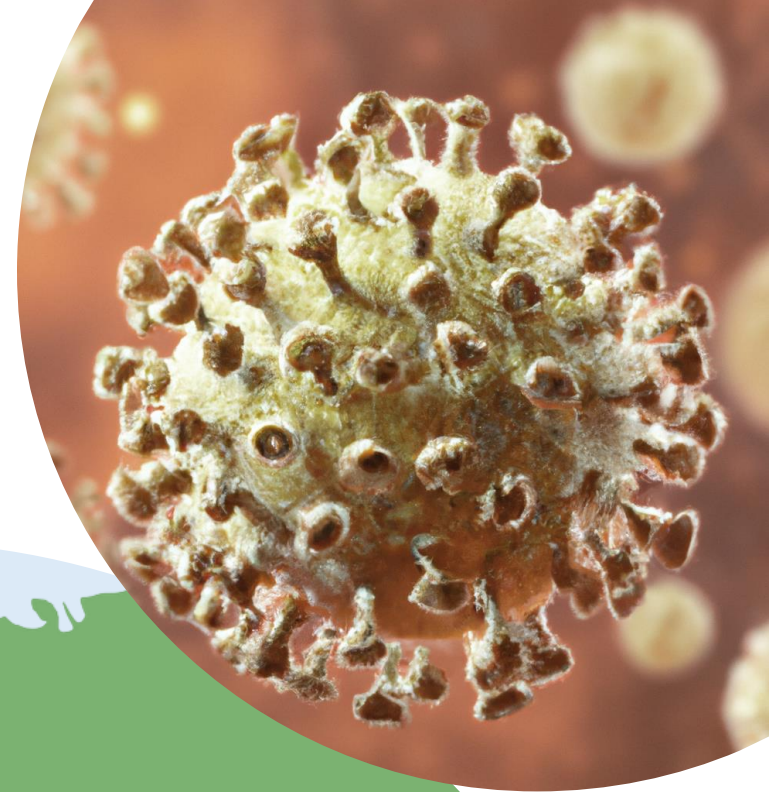


Updates on ASF situation- Global and Regional

Dr Marta Martínez Avilés
WOAH Consultant

ASEAN ASF Coordination Meeting
Hanoi, 26-28 Nov. 2024



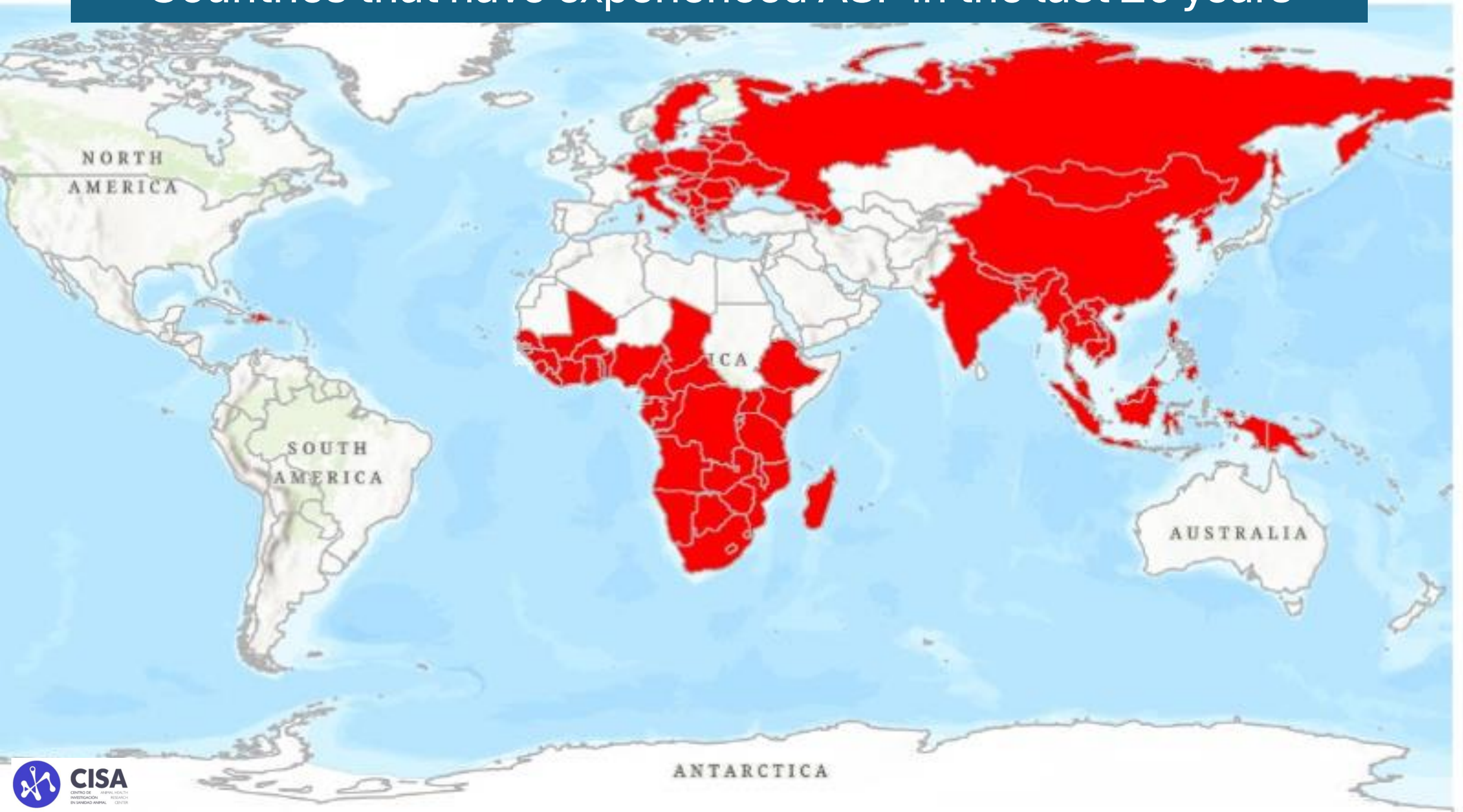
CISA
CENTRO DE INVESTIGACIÓN EN SANIDAD ANIMAL

INIA
Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria

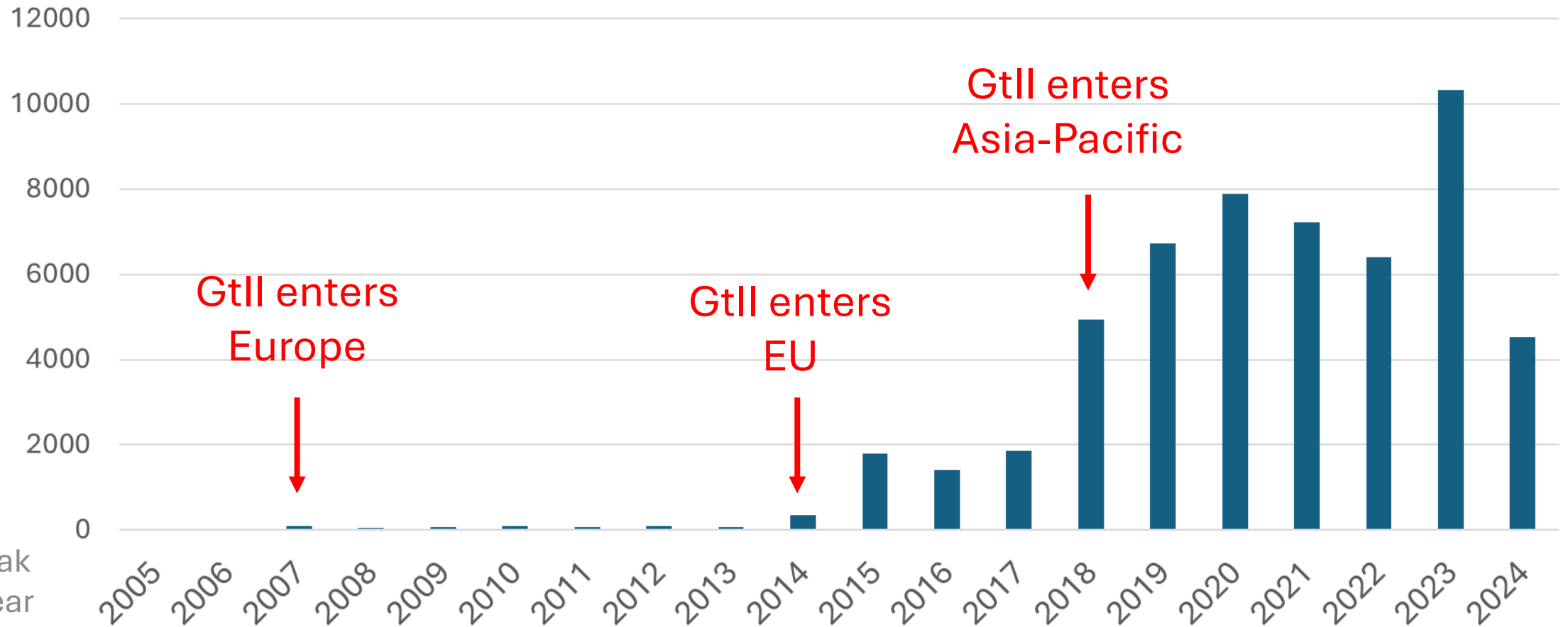


CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

Countries that have experienced ASF in the last 20 years



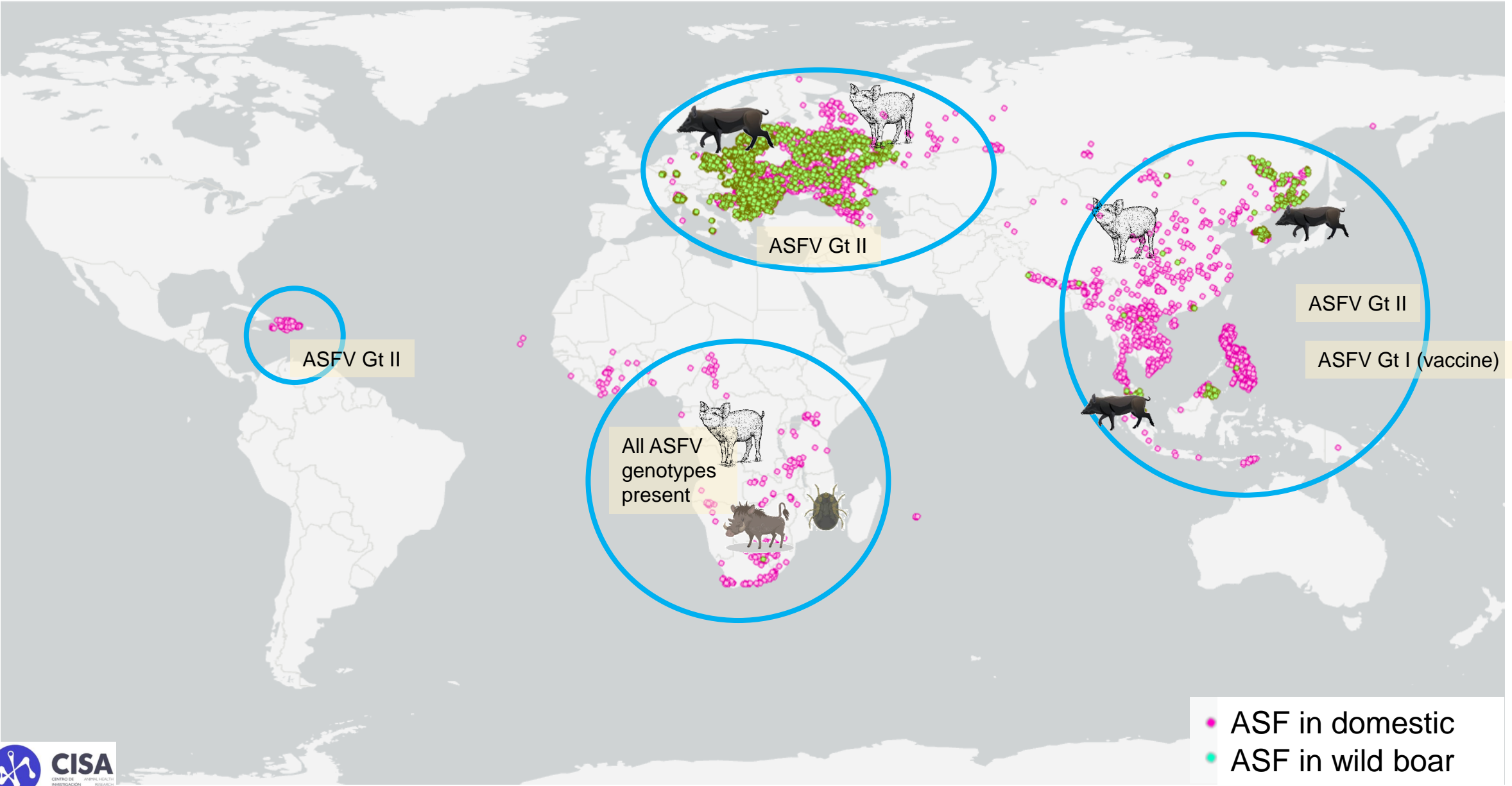
ASF notifications in the last 20 years



53,968 notifications to WOAII

Outbreak
Start Year

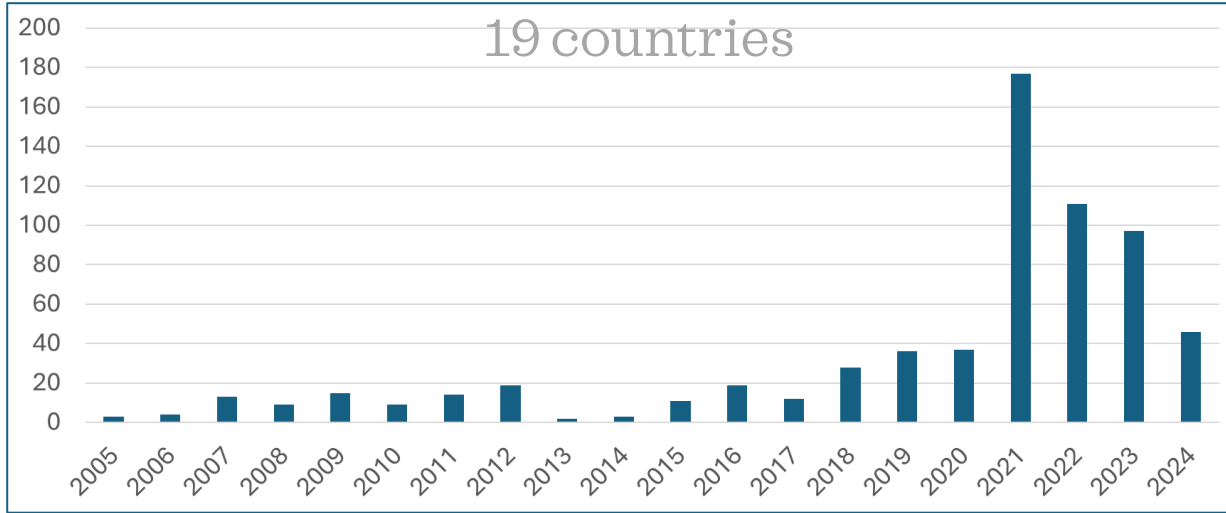
Global situation of ASF outbreak since 2007



Africa

665 notifications

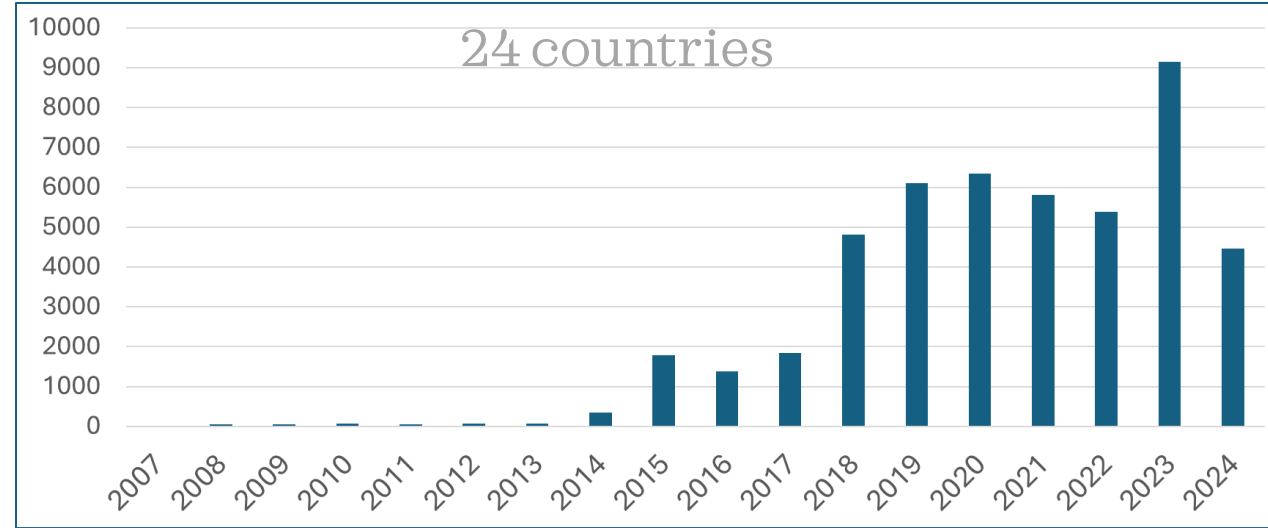
19 countries



Europe

47,747 notifications (88%)

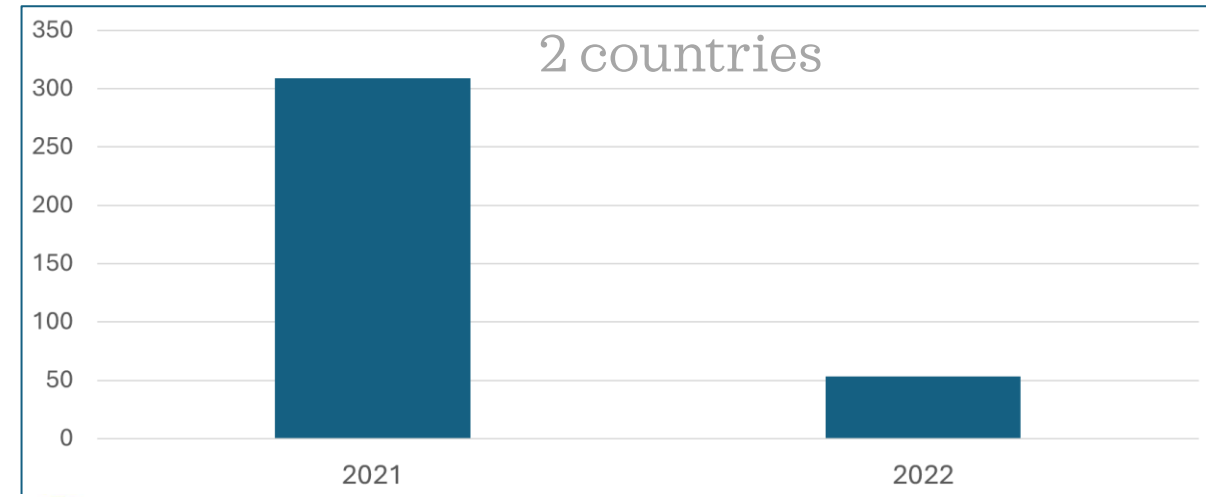
24 countries



America

362 notifications

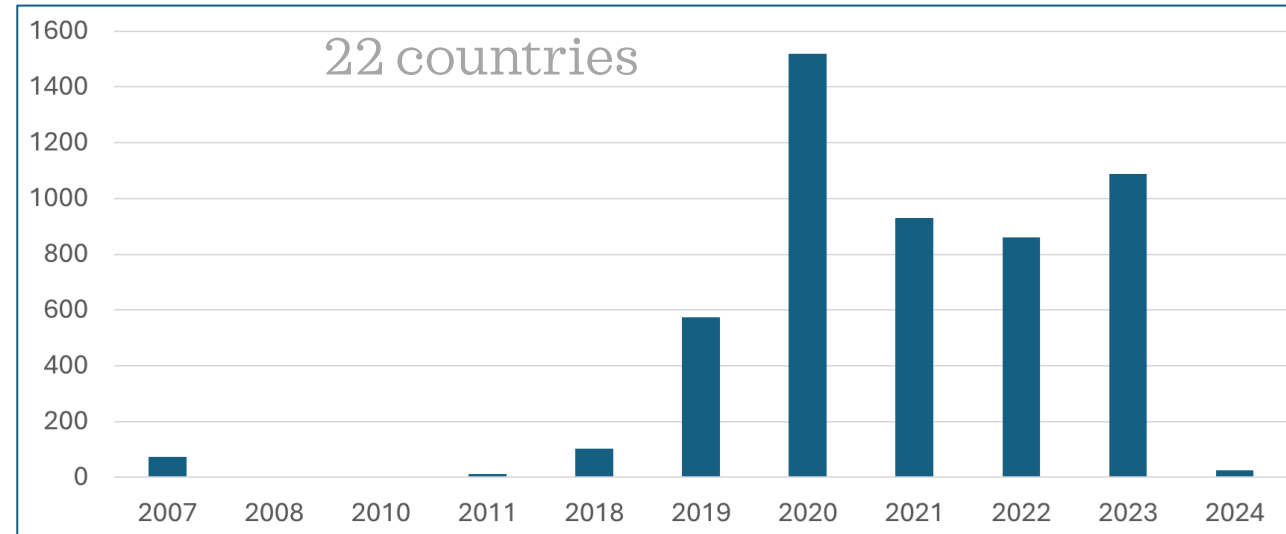
2 countries



Asia

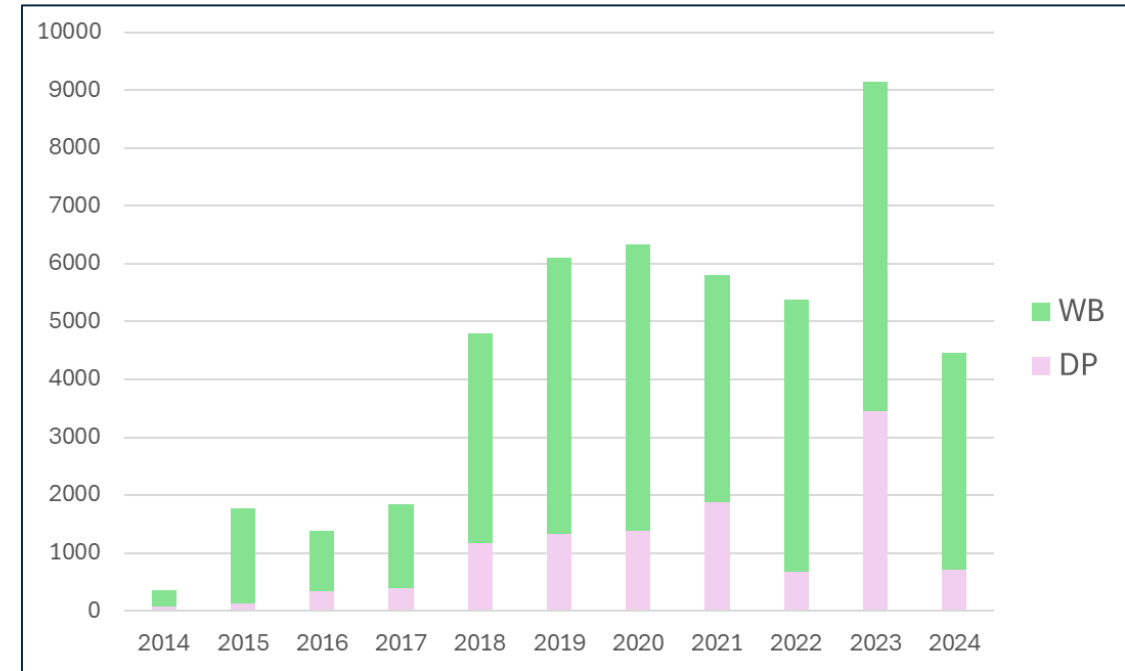
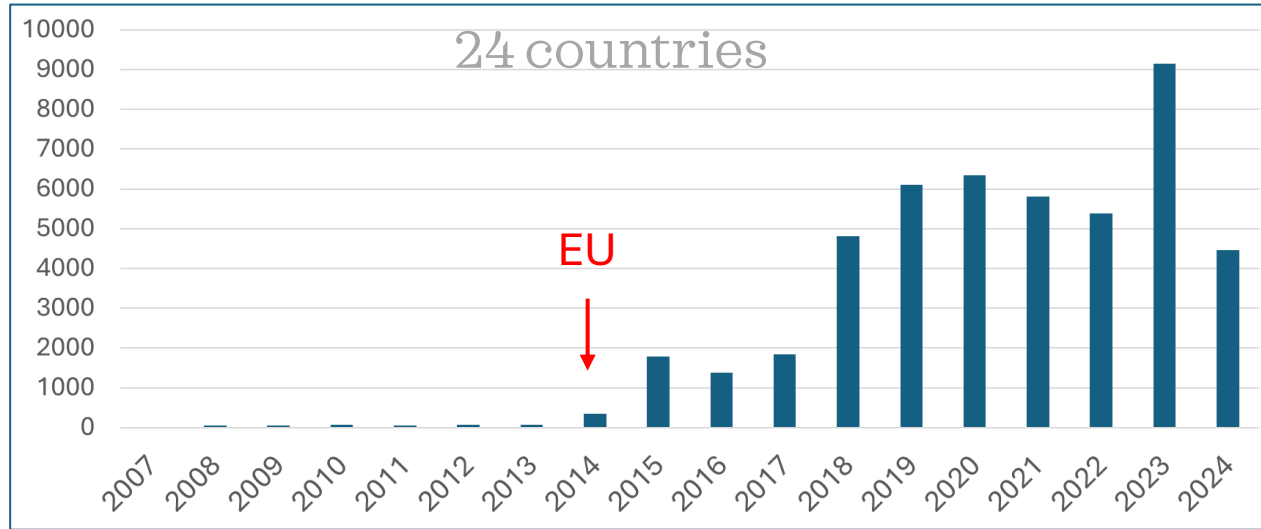
5,193 notifications (10%)

22 countries



Europe

47,747 notifications (88%)

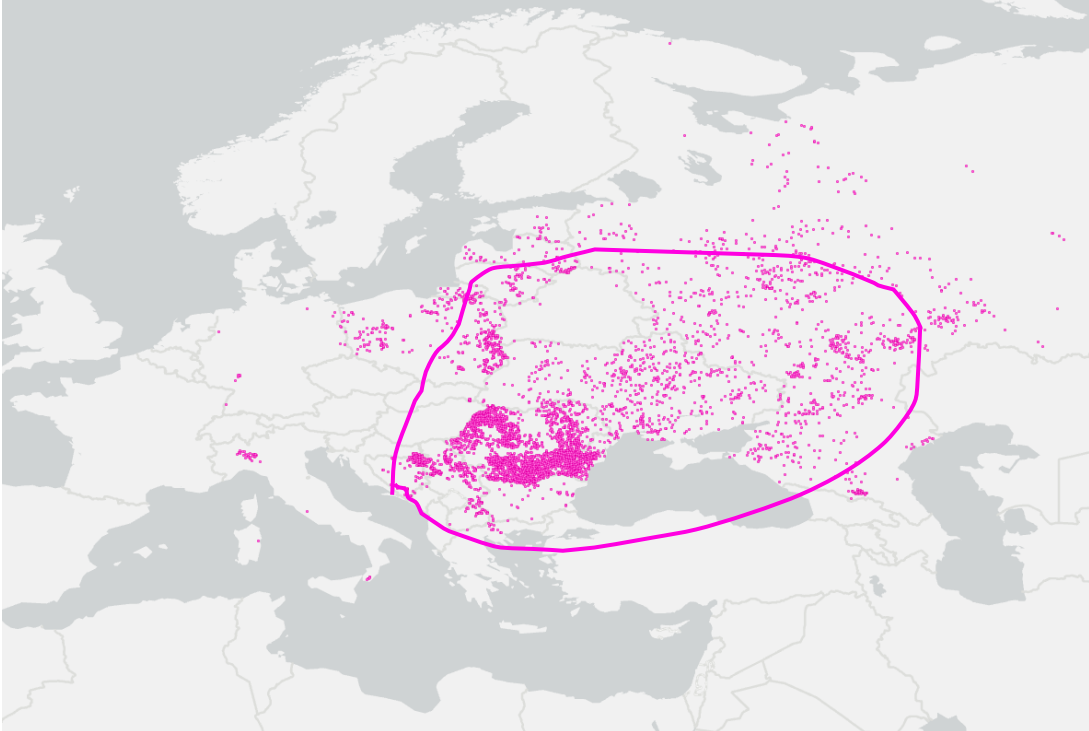


- **2007-2014-** Russia, Ukraine, Belarus
- **2014-2017-** enters EU- Baltic countries (3) and E. Poland, but low DP positive until 2017
- **2017 onwards-** increase in new countries affected:

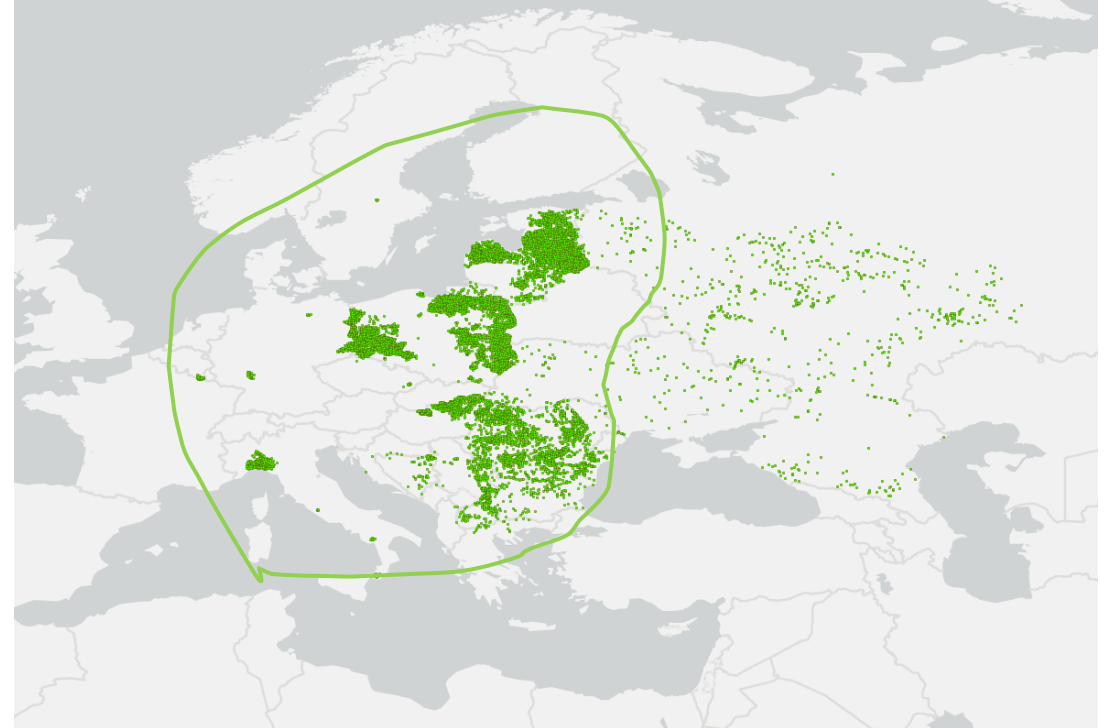
2016	2017	2018	2019	2020	2021	2022	2023	2024
1	3	2	1	2	1	1	2	2
MV	RO BE CZ	HU BU	SK	DE GR	N.MAC	IT	B&HZ SE	AL MTN

ASF in Europe

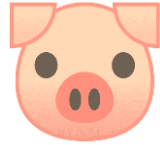
Domestic pigs (25%)



Wild boar (75% notifications, 84% in EU)

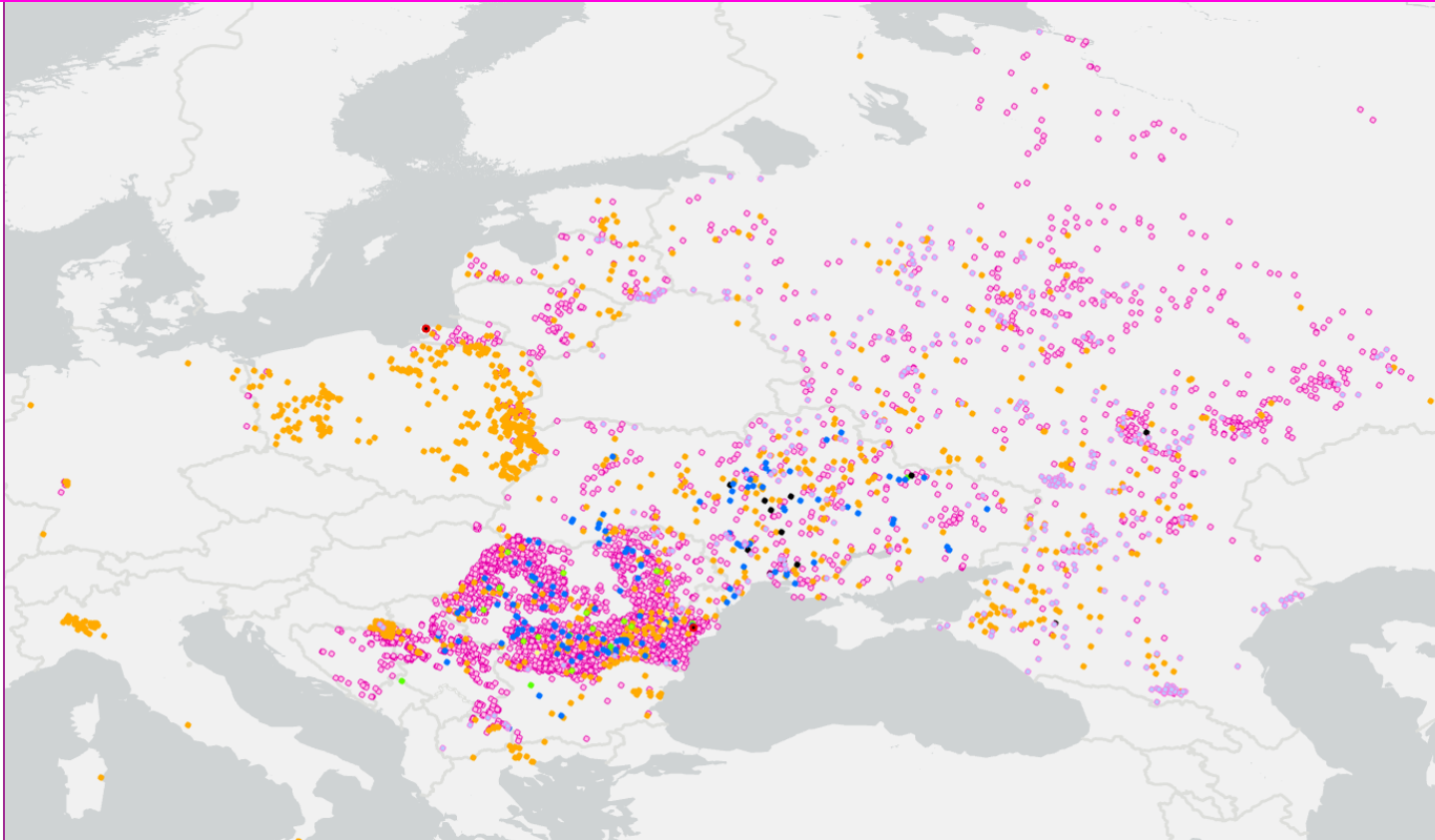


BE, CZ, SE, HU → only in WB
BE self-declared freedom 2020



ASF in DP in Europe

Domestic pigs (25% ASF notif in Europe)



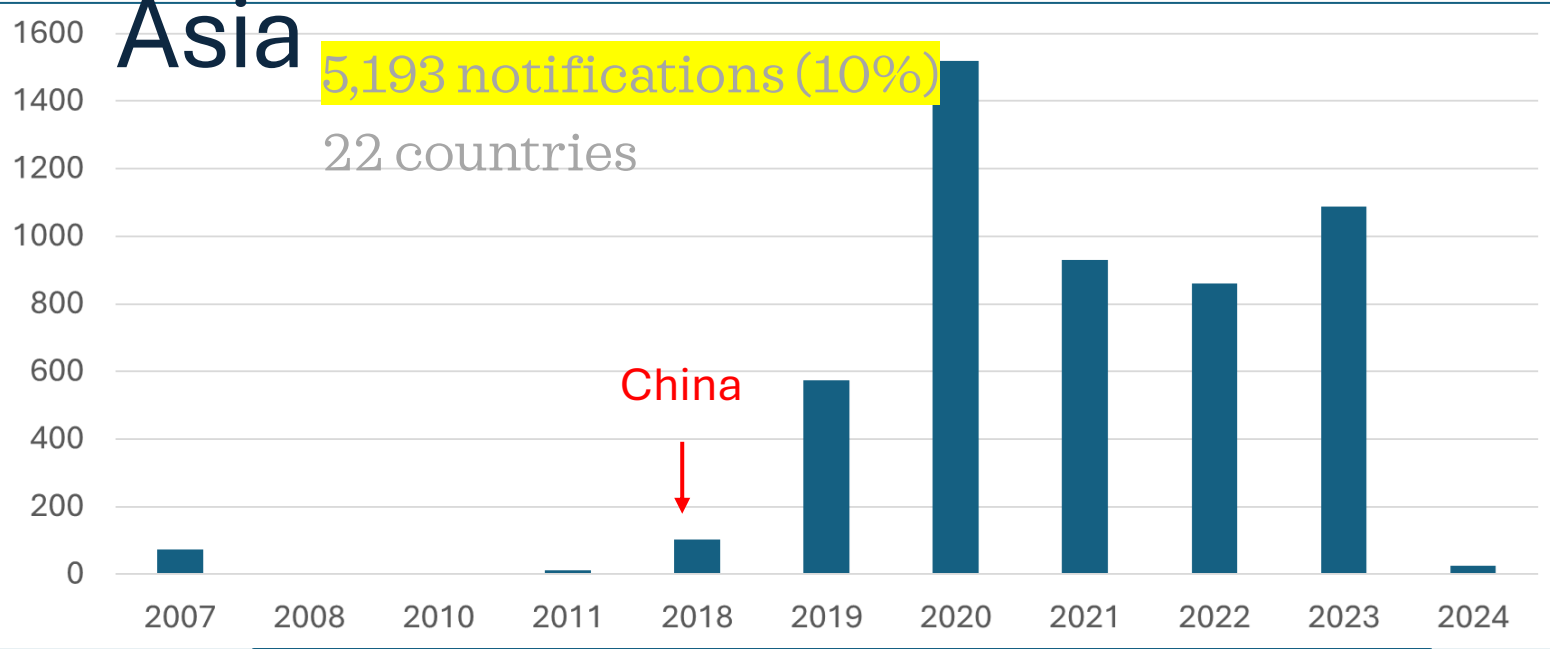
In Eastern Europe. BY farming and village pigs have been a risk factor for ASFV spread in DP

- Backyard
- Farm
- Forest
- Natural park
- Not applicable
- Other
- Slaughterhouse
- Village
- Zoo

Asia

5,193 notifications (10%)

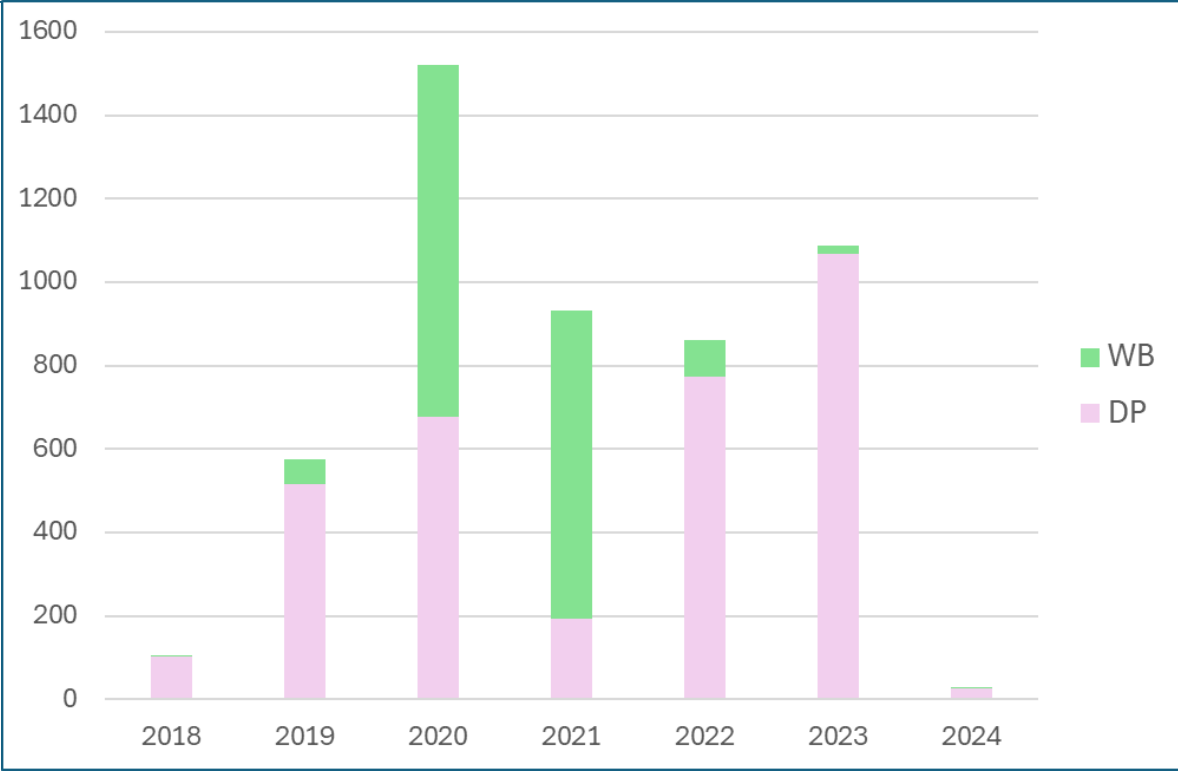
22 countries



New countries ASF+:

2019	2020	2021	2022	2023	2024
11	2	3	1	2	0

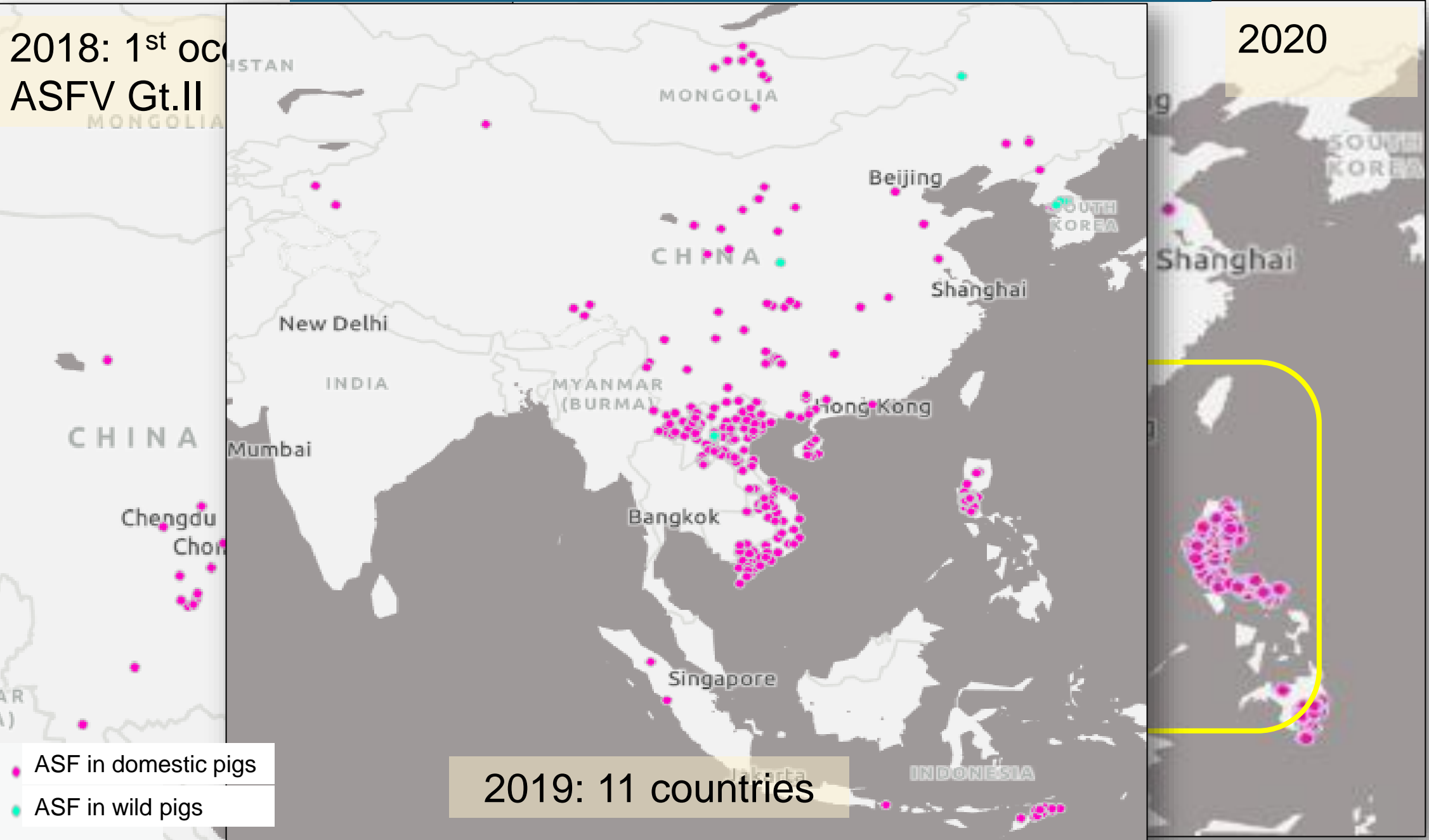
- DKR
- HK
- IND
- KHM
- KOR
- MON
- MYM
- PDRL
- PHIL
- TimL
- VNM



7 years of AFSV spread in Asia-Pacific region

2018: 1st occurrence of ASFV Gt.II

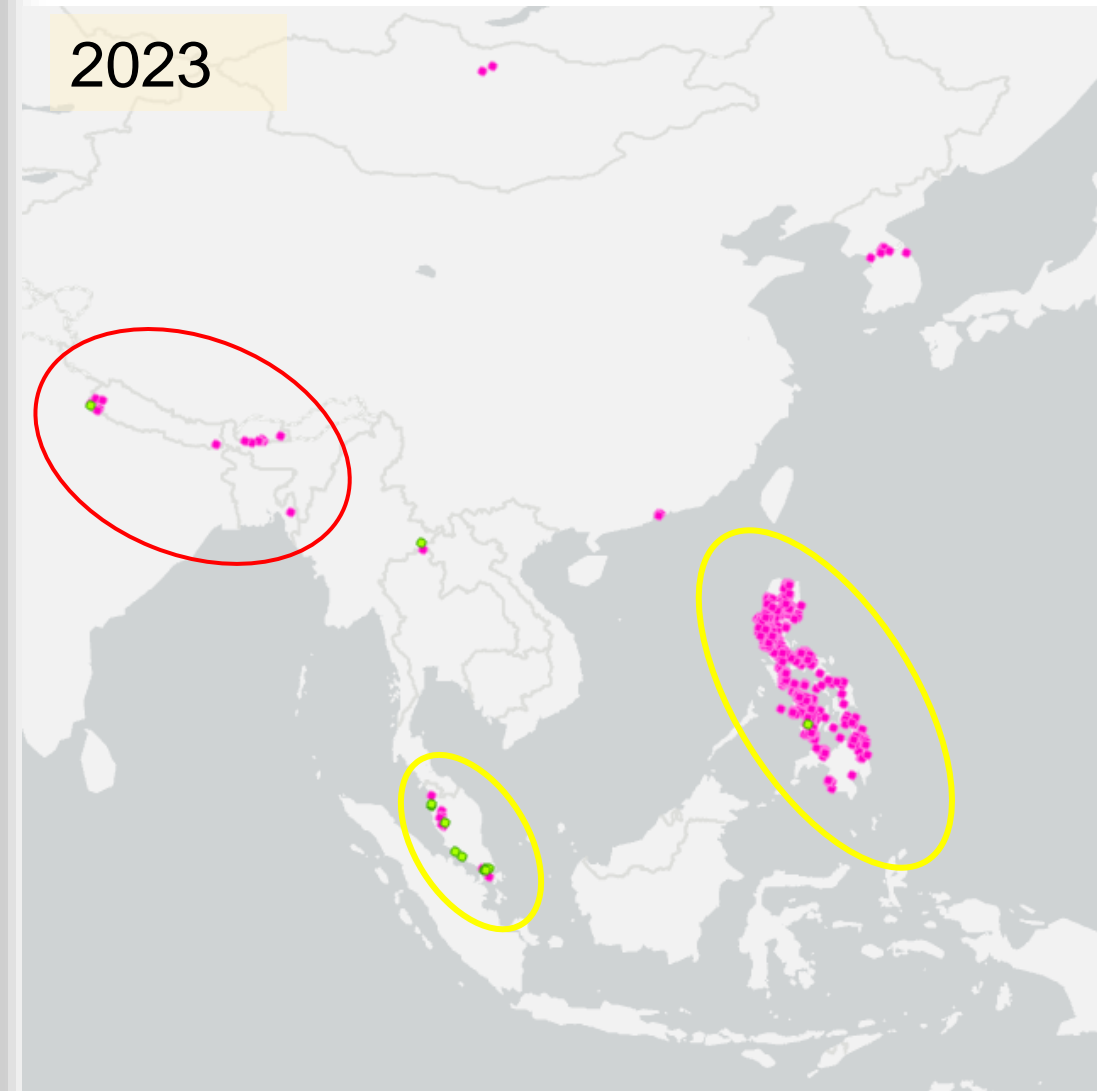
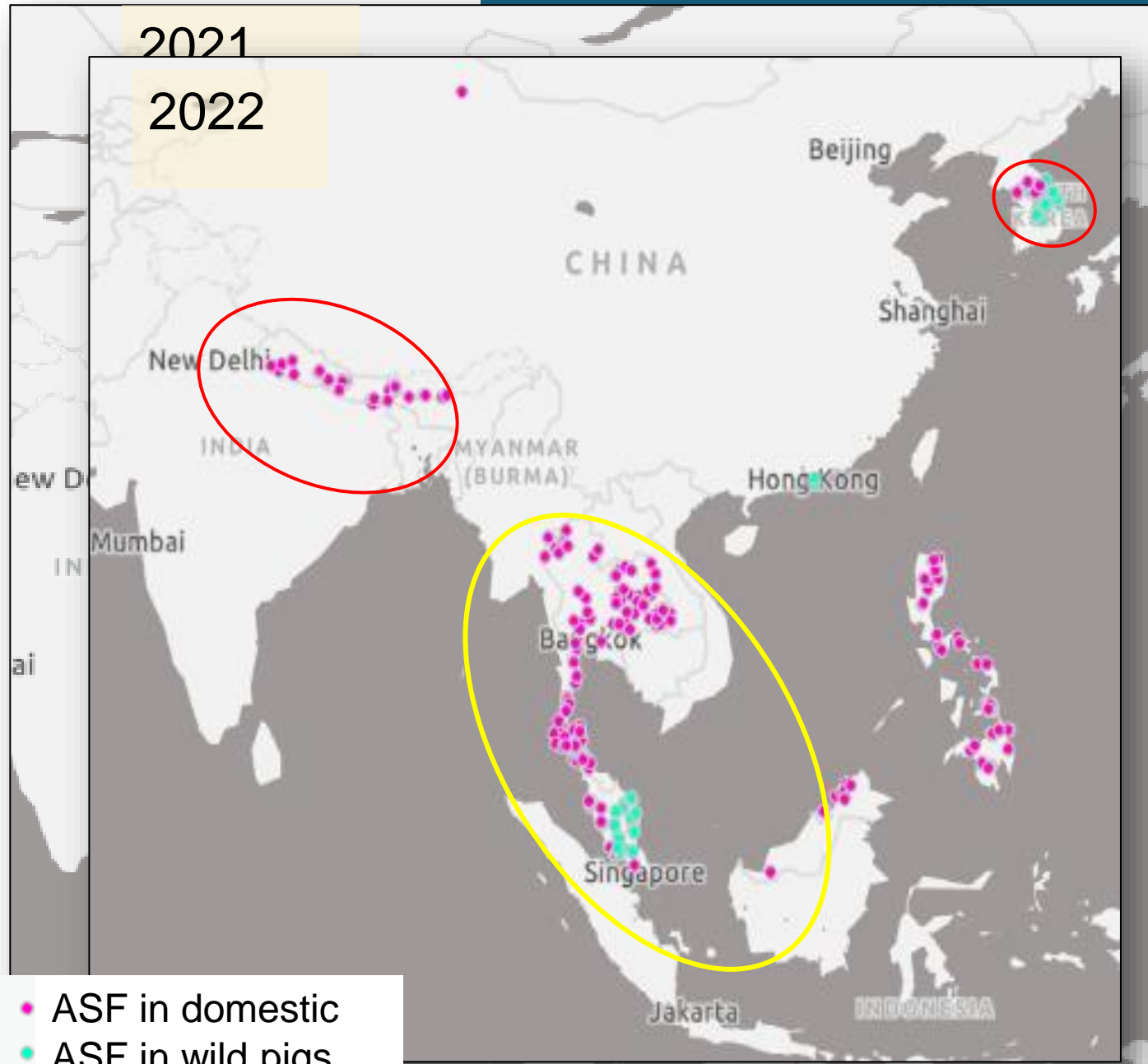
2020



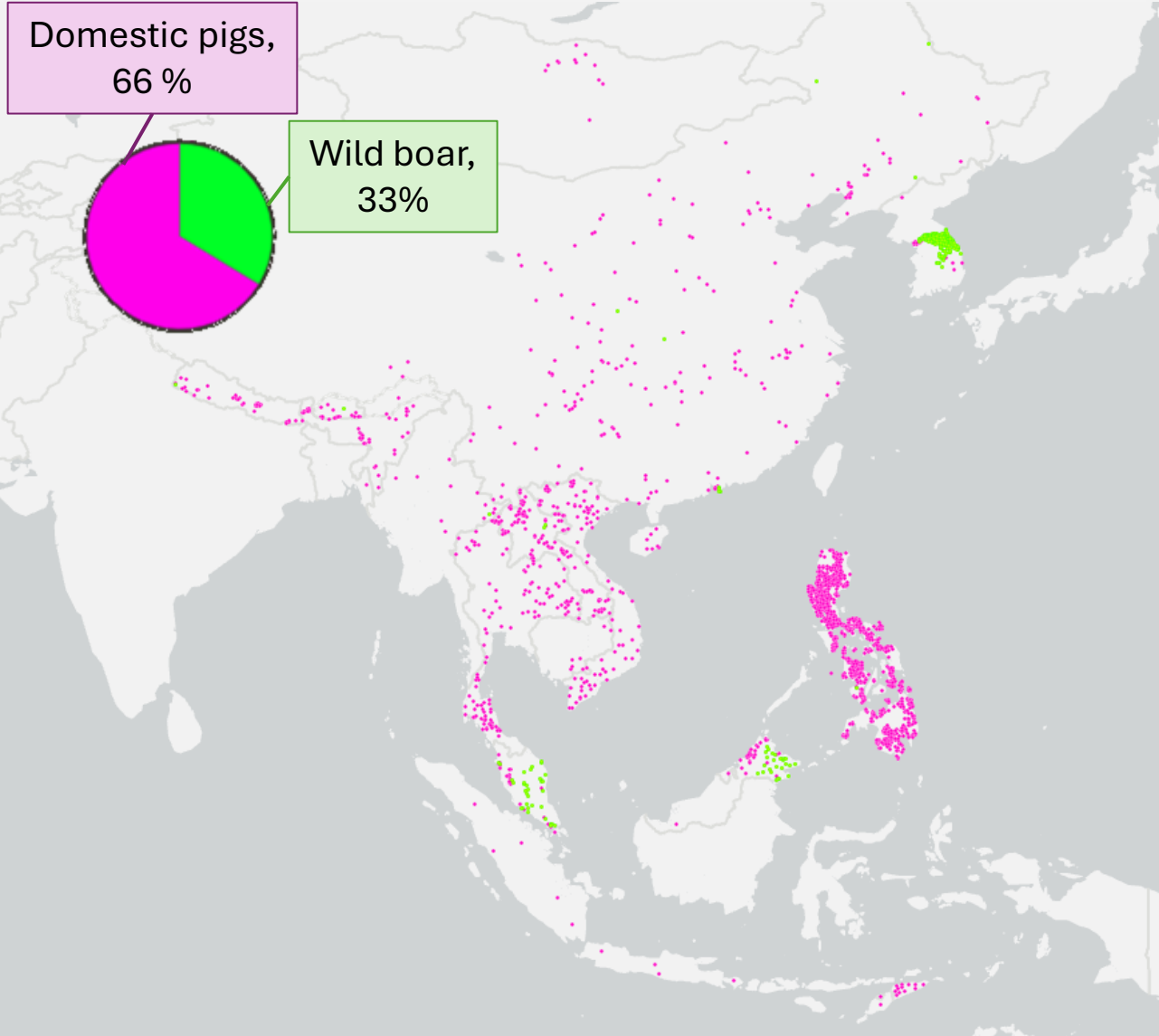
2019: 11 countries

- ASF in domestic pigs
- ASF in wild pigs

7 years of AFSV spread in Asia-Pacific region



ASF in Asia-Pacific



12 different species of wild boar
3 genera

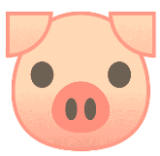


No control measures

Undereporting

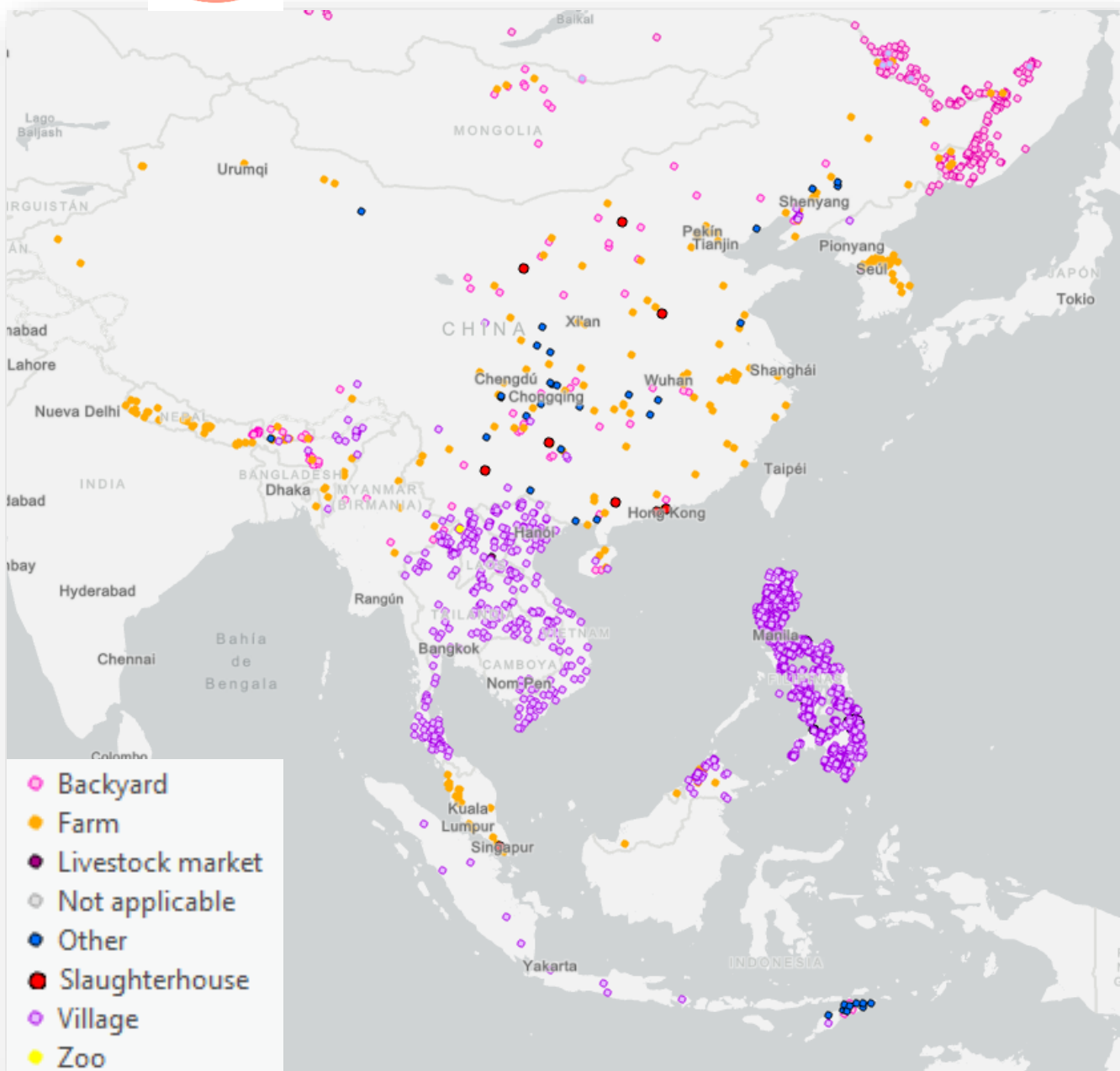
Conservation impact



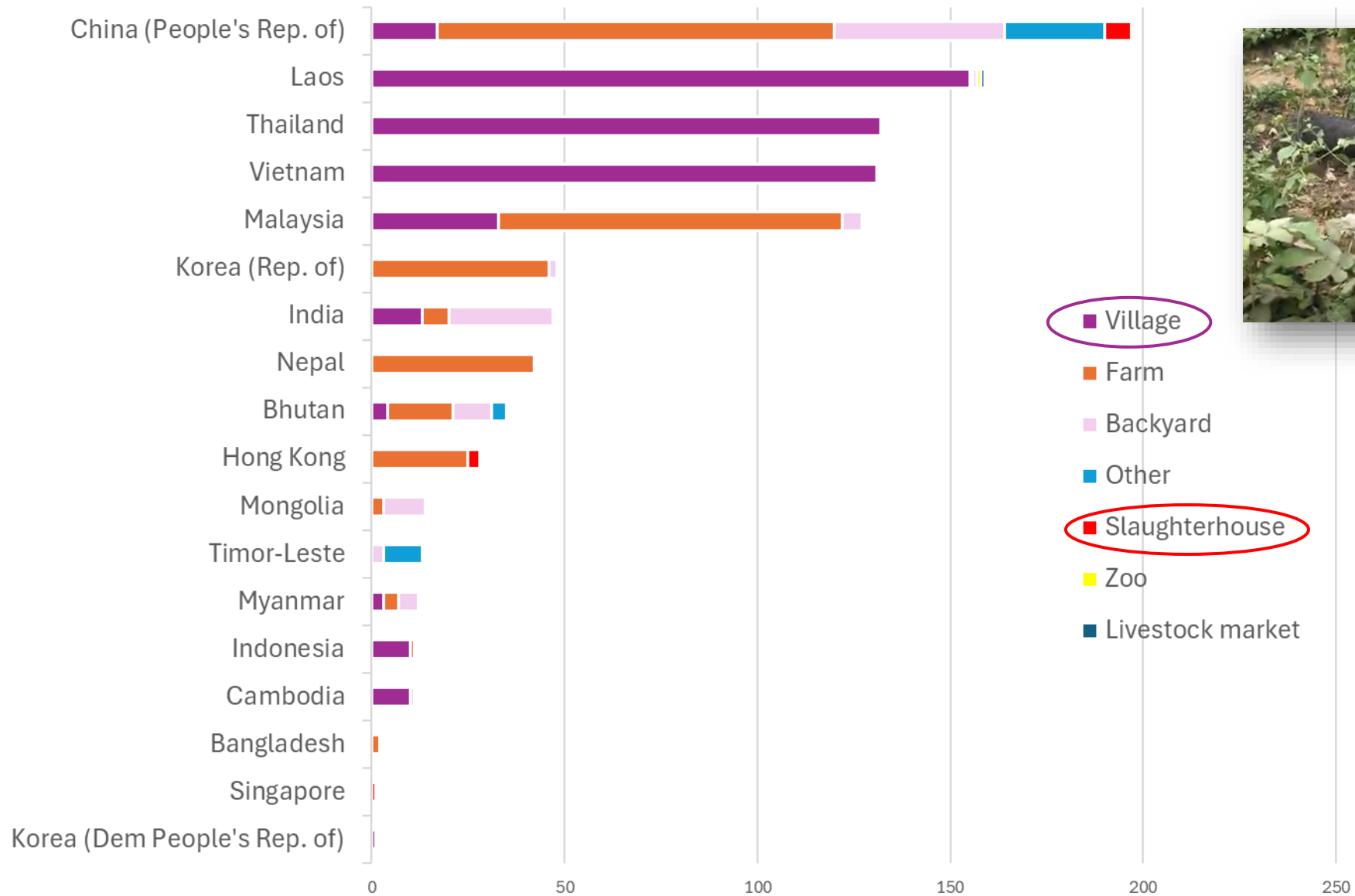


ASF in DP in Asia-Pacific by epi unit

Each country presents its own epidemiological challenges → ASF **country-based risk strategy** needed before a regional coordination

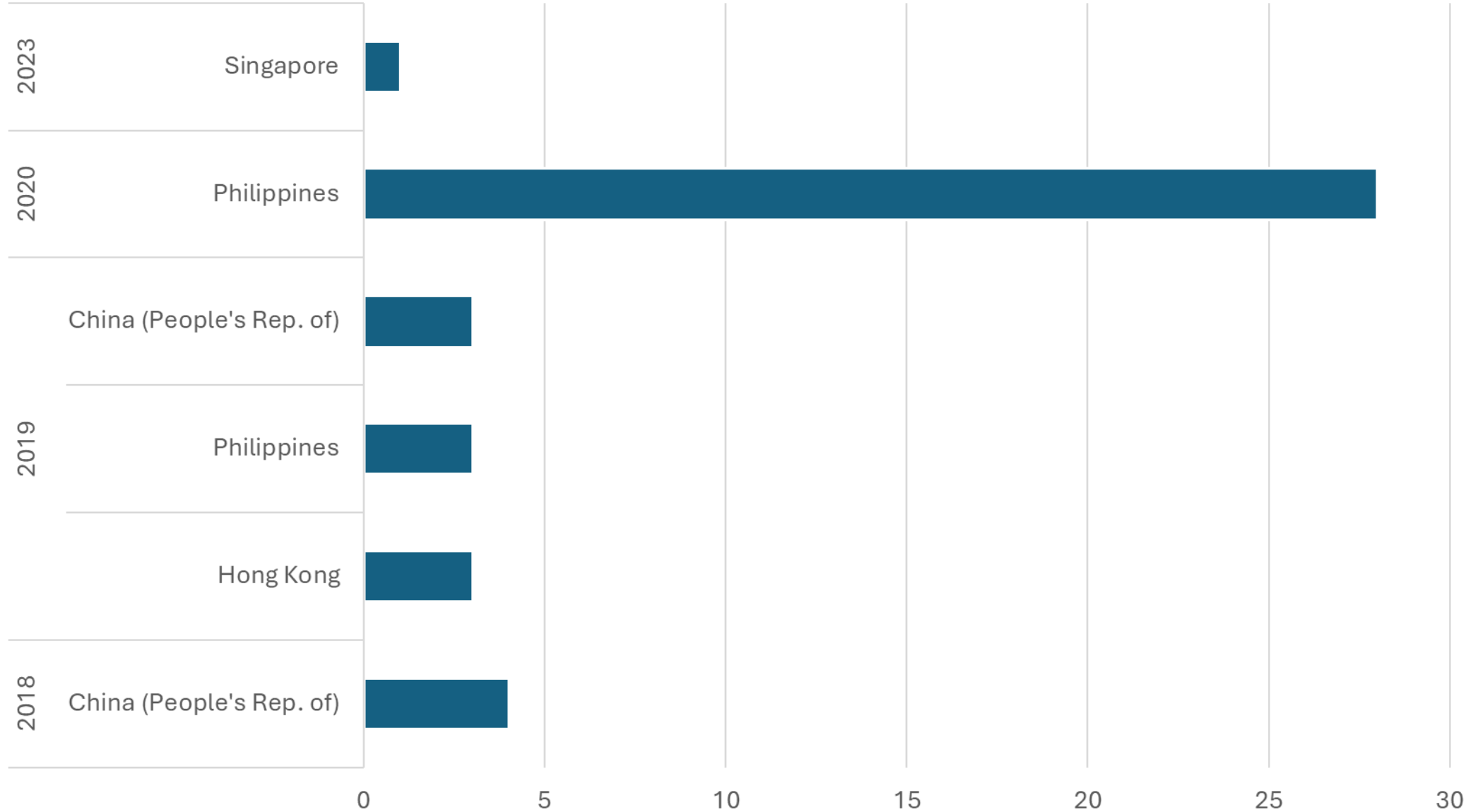


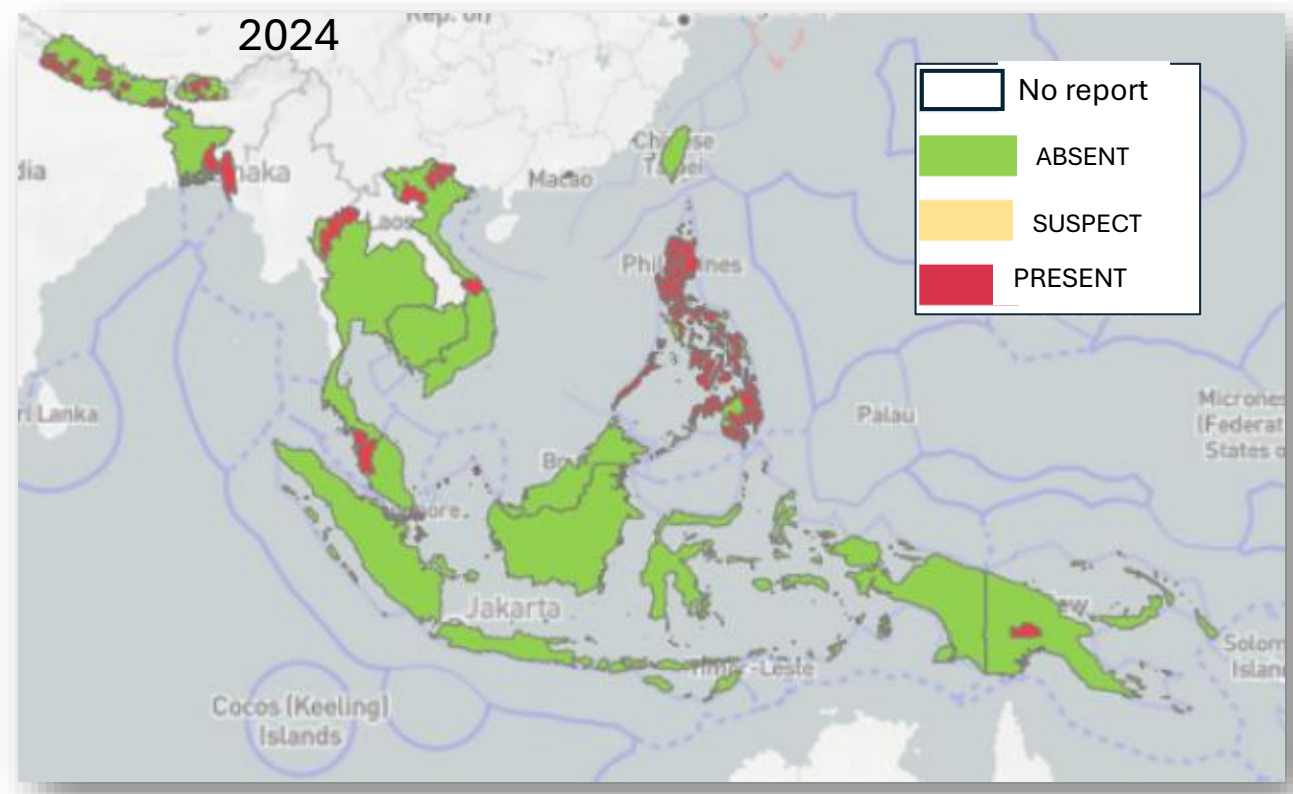
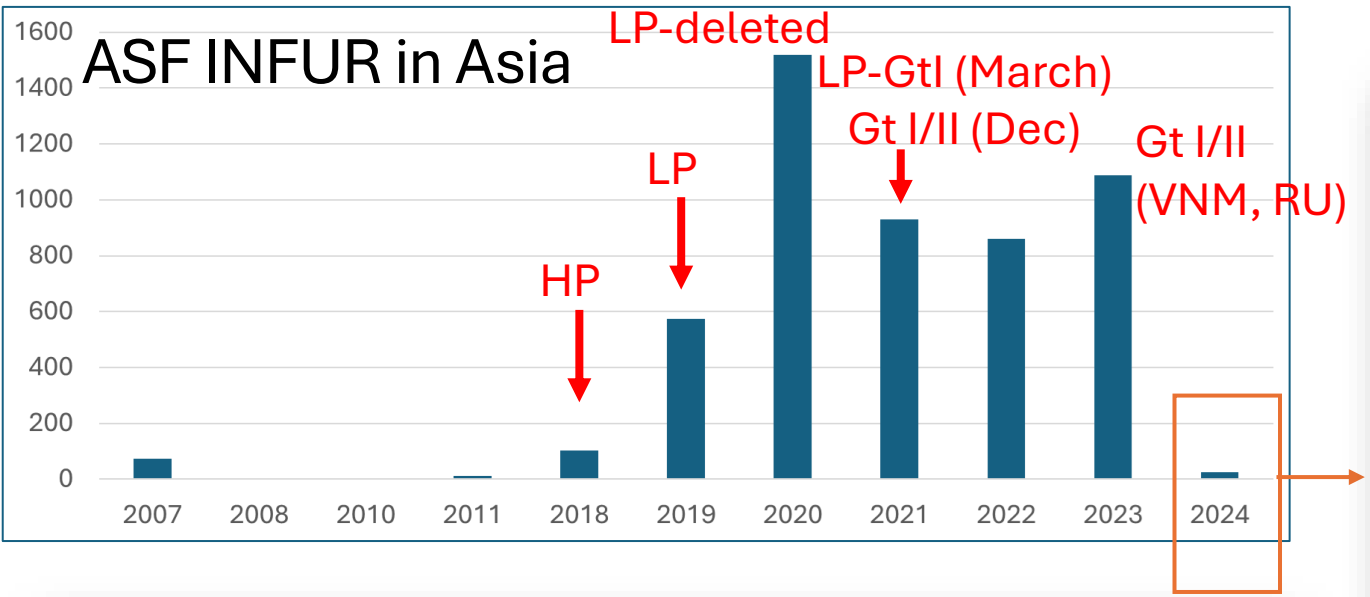
3357 ASF notifications in DP in Asia-Pacific (70% in village pigs in PHIL)



As early as 13 days after first ASF in China

ASF in DP slaughterhouses in Asia-Pacific



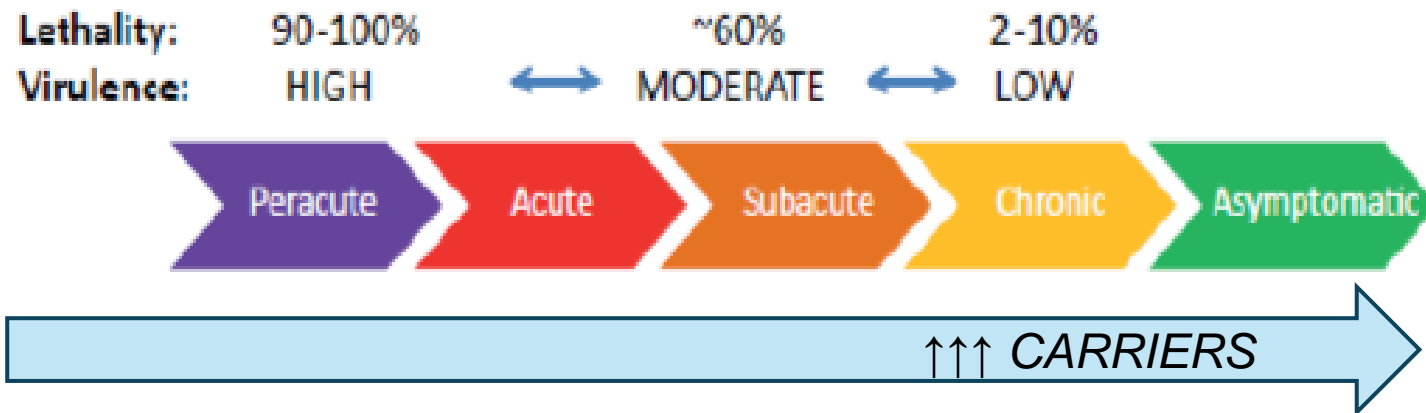


25/10/24 → Sri Lanka in DP and WB
<https://www.fao.org/animal-health/situation-updates/asf-in-asia-pacific/en>

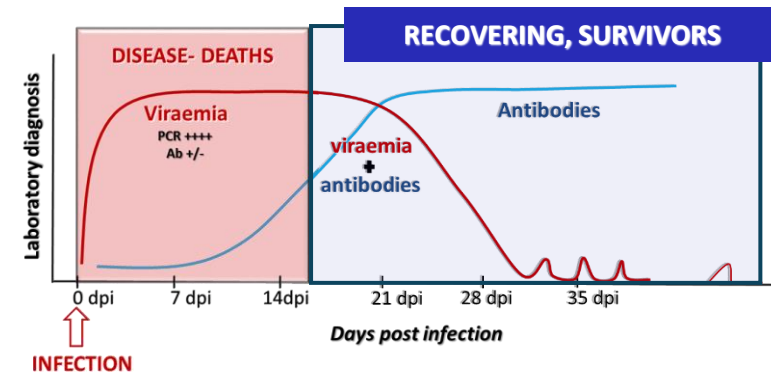
ONCE PRESENT, ASF PERSISTS FOR A LONG TIME

LOW PATHOGENIC ASF DETECTION

- SUBCLINICAL SIGNS OR ABSENT
- INCREASED SEROPREVALENCE AND DECREASED PCR-PREVALENCE
- INCREASED RISK OF CARRIERS



ASF clinical evolution
(adapted from ASF EURL)



ASF diagnostic test results evolution
(ASF EURL and FAO Ref Centre, Madrid)

ASF vaccination (LAVs)



- **Philippines:** government-controlled vaccination with AVAC live vaccine from Vietnam. Vaccination of hotspot backyard healthy farms followed by nationwide commercial farms
 - started in Aug. 2024 (AVAC live vaccines) in Lobo, Batangas,
 - continued on 5 Oct to Lipas, Batangas.
 - Next round in Quezon, Rizal, Laguna, Occidental Mindoro, North Cotabato
 - Finally commercial farms nationwide
- **Vietnam:** nationwide vaccination with 2 approved vaccines NAVET-ASFVAC and AVAC notified July 2023. DACOVAC ASF2 is a third vaccine approved for commercial production.
- **AVAC Vaccine :**
 - Philippines
 - Nigeria
 - Malaysia
 - Indonesia
 - India
 - Nepal
 - Myanmar



Article

<https://doi.org/10.1038/s41467-023-38868-w>

Highly lethal genotype I and II recombinant African swine fever viruses detected in pigs

Received: 19 October 2022

Accepted: 11 May 2023

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Dongming Zhao^{1,3}, Encheng Sun^{1,3}, Lianyu Huang^{1,3}, Leilei Ding^{1,3}, Yuanmao Zhu^{1,3}, Jiwen Zhang¹, Dongdong Shen¹, Xianfeng Zhang¹, Zhenjiang Zhang¹, Tao Ren¹, Wan Wang¹, Fang Li¹, Xijun He¹ & Zhigao Bu^{1,2}✉[Home](#) > [Molecular Biology Reports](#) > Article

Detection of the first recombinant African swine fever virus (genotypes I and II) in domestic pigs in Russia

Brief Report | Published: 25 September 2024

Volume 51, article number 1011, (2024) [Cite this article](#)[Alexey Igolkin](#), [Ali Mazloum](#) ✉, [Nikolay Zinyakov](#), [Roman Chernyshev](#), [Antoinette van Schalkwyk](#), [Andrey Shotin](#), [Ivan Lavrentiev](#), [Konstantin Gruzdev](#) & [Ilya Chvala](#)

Detection of Recombinant African Swine Fever Virus Strains of p72 Genotypes I and II in Domestic Pigs, Vietnam, 2023

Van Phan Le, Van Tam Nguyen, Tran Bac Le, Nguyen Tuan Anh Mai, Viet Dung Nguyen, Thi Tam Than, Thi Ngoc Ha Lai, Ki Hyun Cho, Seong-Keun Hong, Yeon Hee Kim, Tran Anh Dao Bui, Thi Lan Nguyen, Daesub Song, Aruna Ambagala

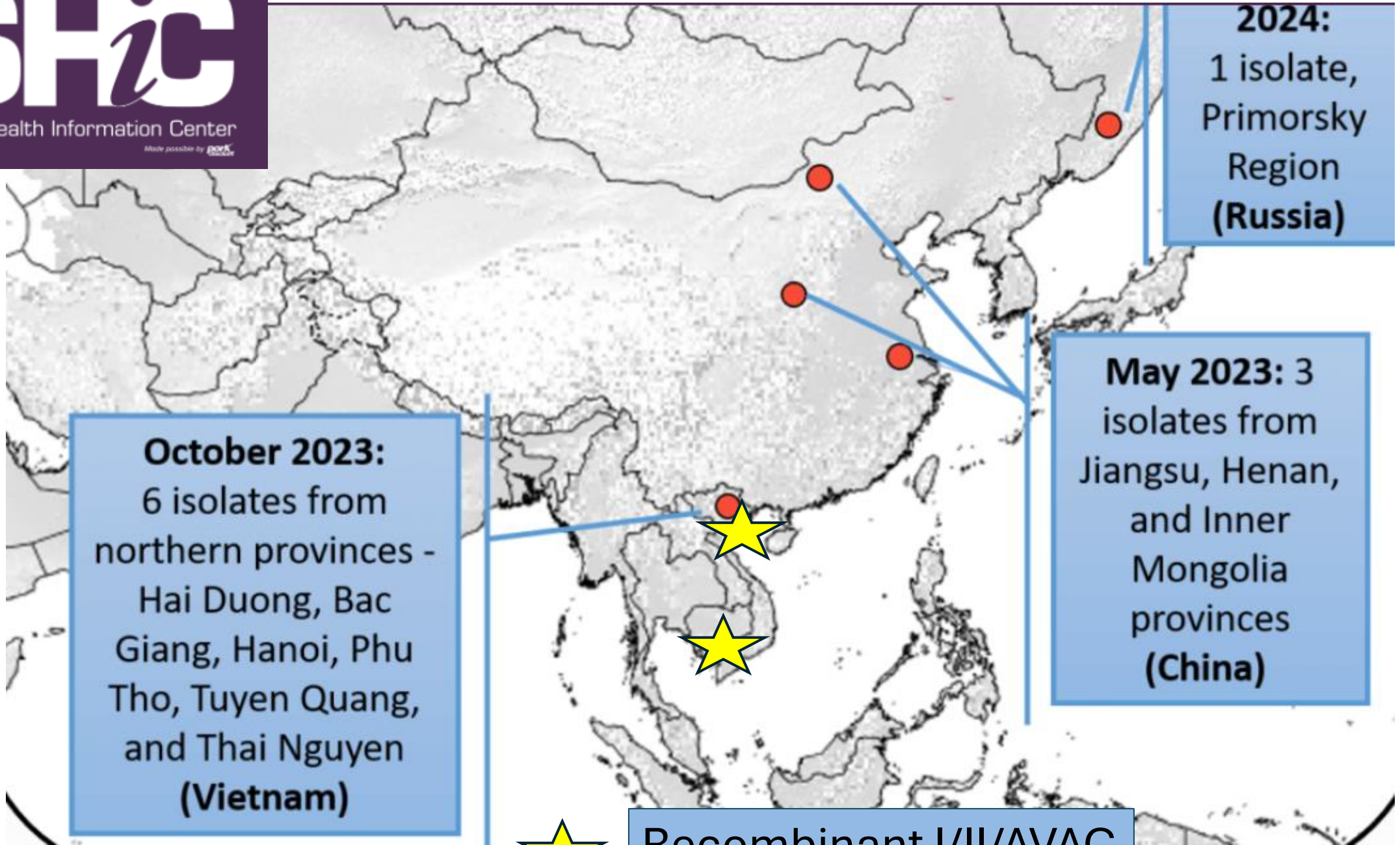


Virology | Announcement

Recombinant I/II with AVAC

Genome sequences of recombinant *African swine fever virus* isolated from domestic pigs in Vietnam

Diep Van Nguyen,¹ Ngoc Thi Nguyen,¹ Duc Van Nguyen,¹ Tham Thi Bui,¹ Tiep Ngoc Tran¹**AUTHOR AFFILIATION** See affiliation list on p. 3.**ABSTRACT** African swine fever is a highly contagious and devastating disease of pigs. Here, we present the draft genome assemblies of three Vietnamese *African swine fever virus* (ASFV) isolates: rASF1/2-avac02, rASF1/2-avac03, and rASF1/2-avac07. All isolates were closely related to the Chinese recombinant ASFV strains of genotypes I and II.



2024:
1 isolate,
Primorsky
Region
(Russia)

May 2023: 3
isolates from
Jiangsu, Henan,
and Inner
Mongolia
provinces
(China)

October 2023:
6 isolates from
northern provinces -
Hai Duong, Bac
Giang, Hanoi, Phu
Tho, Tuyen Quang,
and Thai Nguyen
(Vietnam)



Recombinant I/II/AVAC

Conclusions

Consequences of endemic circulation in Russia/Asia different to endemic circulation in Africa

- higher trade and movements = higher risk for the world
- impact on wild species biodiversity in Asia
- legal GtII vaccines most likely not protective against highly pathogenic recombinant strains
- vaccination could lead to persistence



- Research needed on control measures strategies and impact as well as updates on ASF situation and risk assessment. **DIVA serological testing**
- ASF Coordination Strategy ongoing with international cooperation...**animal health support** needed in vulnerable high risk regions

Thank
You

The image features the words "Thank You" written in a white, cursive, handwritten-style font. The text is centered on a solid blue background. Surrounding the text are numerous short, white, radiating lines of varying lengths and orientations, creating a sunburst or starburst effect that emphasizes the message.