
Swine Disease Global Surveillance Report

Monday, January 3, 2023

2022 Highlights

Timeline

January

- First reports of ASF in Italy, Thailand and North Macedonia

February

- A locally produced commercial vaccine for ASF is announced in Vietnam -- availability in the market expected in the next few months.

March

- First major outbreak of Japanese encephalitis in Australia: Over 50 farms affected across four southeastern Australian states.

April

- PED in Canada: Manitoba's largest outbreak to date – over 120 cases were reported, surpassing the 2019 outbreak.

May

- Alarm in western Europe after the report of the first case in domestic pigs in the south of Germany - less than 5 miles from the French border.
- First ASF report in Nepal, becoming the 17th Asian country to report the disease.

June

- ASF in Italy: Lazio region's authorities reported the first outbreak in domestic pigs in the country.
- ASF in Germany: First outbreak confirmed in domestic pigs in Lower Saxony, the most important production region in the country with about 30% stock of pigs.

July

- FMD in Indonesia: Regional concern due to the fast spread of the disease in the archipelago.

August

- After 2 months of implementation in the field Vietnam authorities temporarily halted the ASF vaccination deployment amid reports of pig deaths pending investigations.

September

- False alarm in Ecuador: Ecuadorian authorities ruled out CSF and ASF in samples from a suspicious case reported in Esmeraldas province.

October

- ASF spreads in the Philippines: Western Visayas had previously been among the last few regions in the country that remained ASF-free since the first outbreak in July 2019.

November

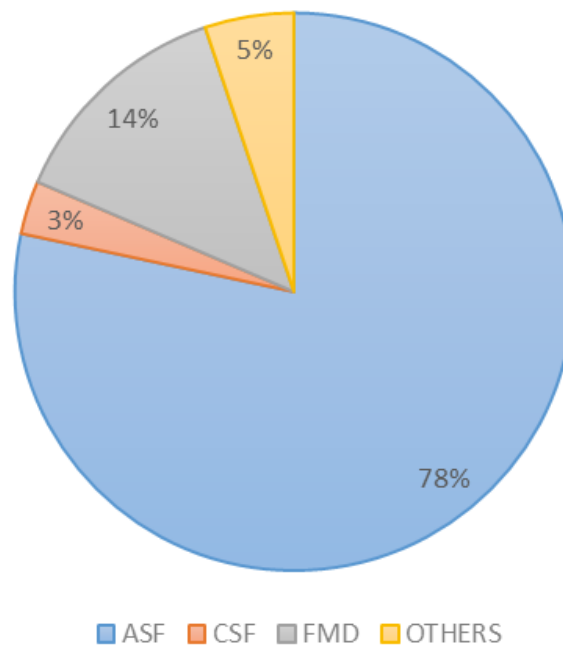
- ASF strikes again in the Czech Republic: the virus was detected in a wild boar carcass near the border with Poland and Germany.

OUTBREAKS BRIEF - 2022 summary

Over 100 events of interest for the swine industry that described the presence of a new agent in a country or region or a significant update on the epidemiology of the disease already present in a region outbreaks were identified and presented in these monthly reports. Even though ASF remains the main disease, regarding the frequency of events and the geographical spread, almost 25% of those were related to other agents of concern (see Chart 1).

Jointly, these events involved over 310,000 pigs directly affected by the outbreaks (this number doesn't include any population of animals culled to limit the spread of the diseases or secondary outbreaks reported afterward).

Distribution of events reported during 2022 by disease (Chart 1)



In 2022, five countries reported the first occurrence of ASF in their territory (Italy, Nepal, Thailand and North Macedonia, and the Czech Republic*), and four countries reported the first occurrence in a zone, among those, Germany and The Philippines. This highlights the continuous spread of the disease into new countries and zones in already affected countries.

The last WOA situation report (Nr 37) highlighted that:

- This spread confirms the global threat of the disease and highlights the importance of implementing biosecurity measures, an early reporting and response system, and maintaining a high level of disease awareness among all actors involved in the value chain.
- Surveillance programs, as part of an early detection system, should be adapted to the local epidemiological context and cover domestic, and wild and feral suid populations (if they are involved) since short-distance transmission of ASF seems to depend largely on the wild boar population density and their interaction with low-biosecurity pig production systems. Long-distance transmission may be associated with human activities.

Distribution of events included in the SDGS during 2022 by disease

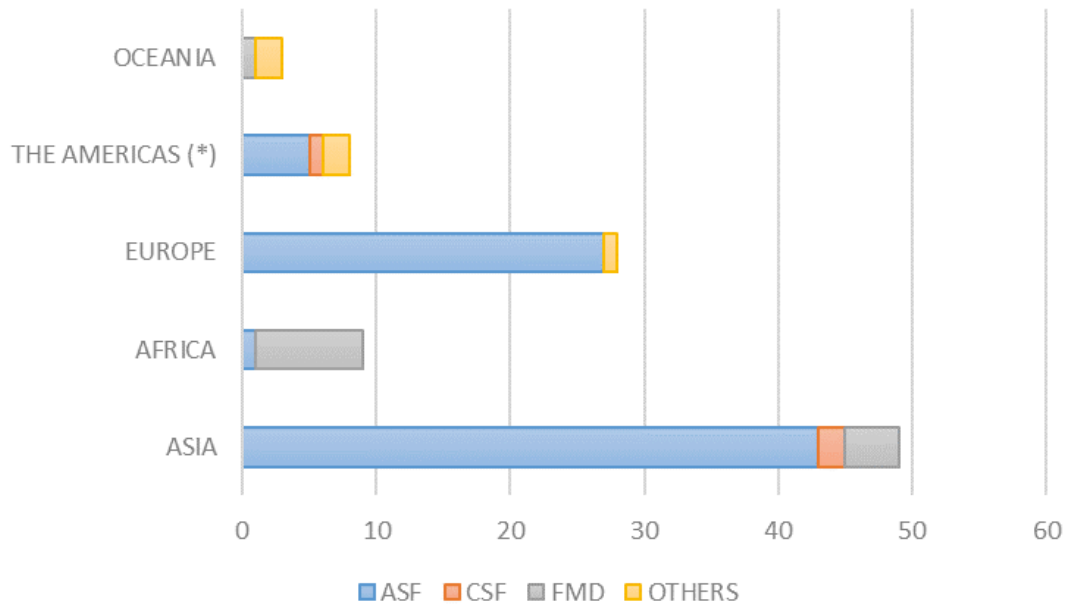
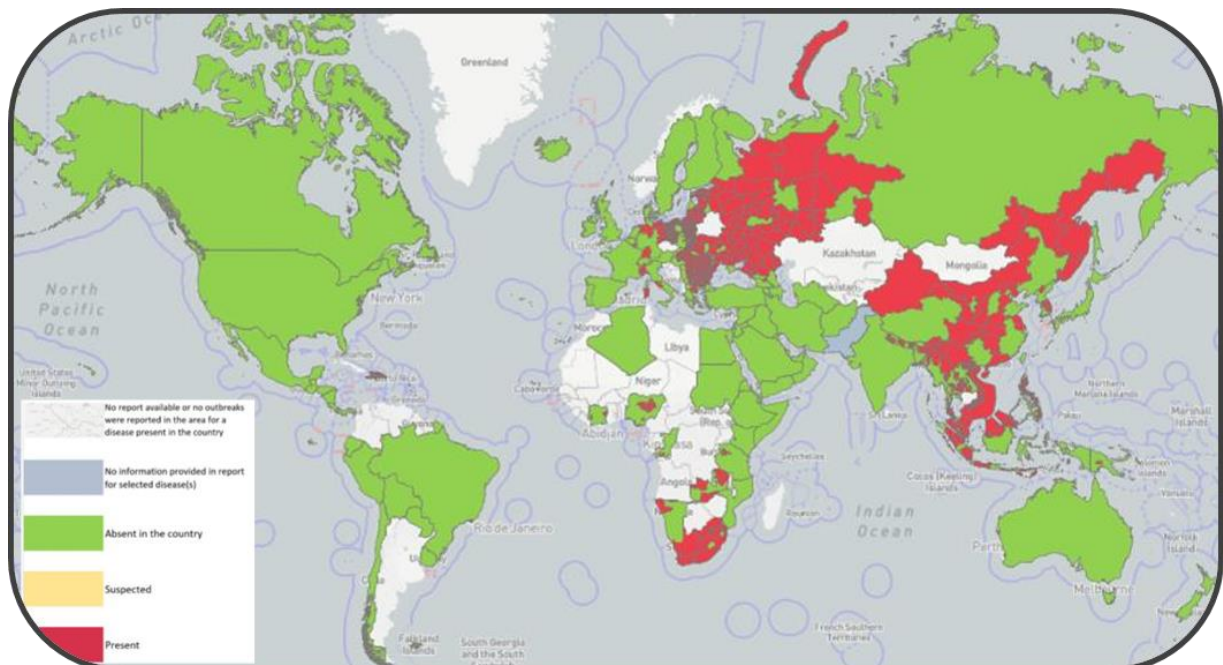


Chart 2. Distribution of events reported by region. (* disambiguation: The term The Americas refers to the Western continent, including North America, South America, and the Caribbean)

African Swine Fever

Officially, since January 2020, ASF has been reported in five different world regions in 45 countries (only including WOA member countries).



Map 1. Distribution of ASF official report status to WOAH by administrative divisions (from 2020 to Nov 2022).

ASF outbreaks by region from January 1, 2022, to December 27, 2022

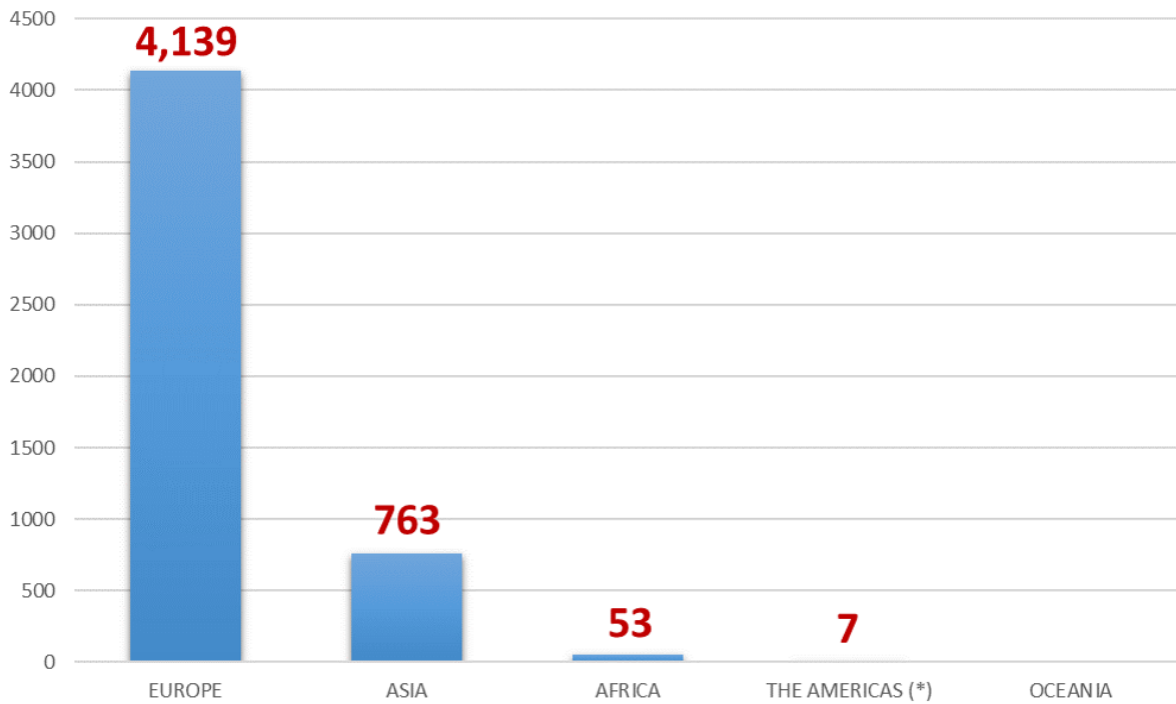


Chart 3. Frequency of outbreaks per region. (Source: FAO [EMPRES-i](#))

ASF outbreaks in domestic pigs and wild boar globally from January 1, 2022, to December 27, 2022

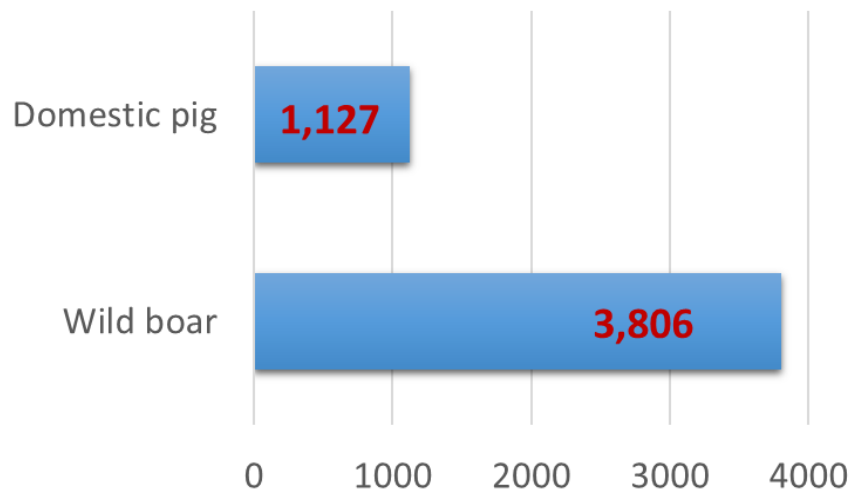


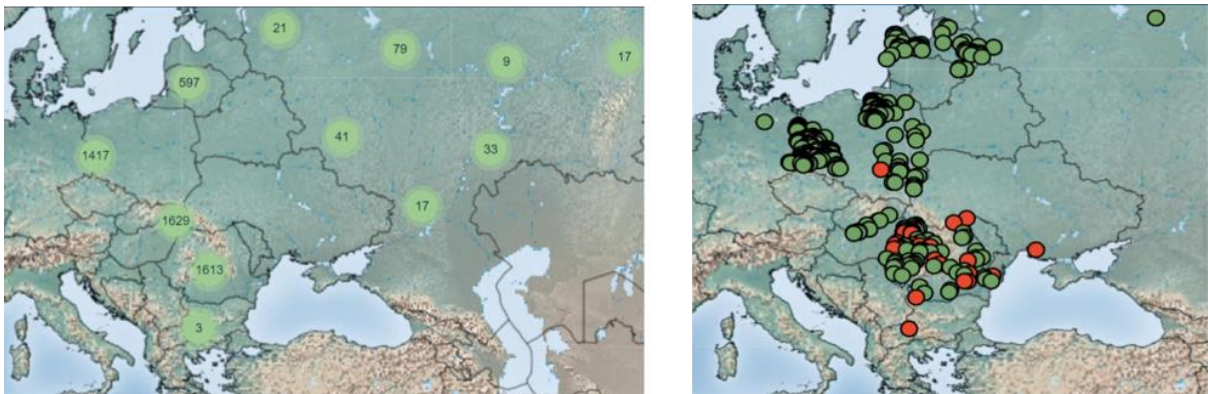
Chart 4. Frequency of outbreaks by species (Source: FAO [EMPRES-i](#))

EUROPE

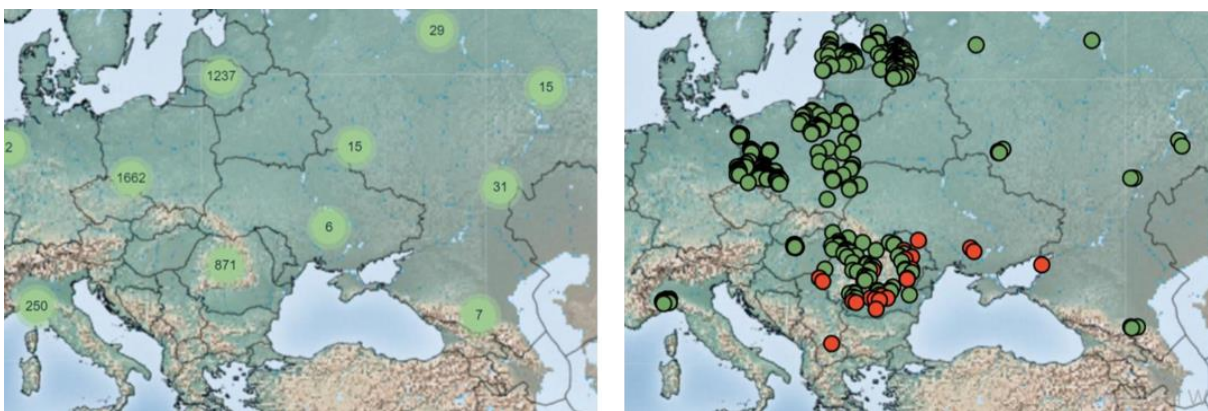
According to an EU ADIS report, as of December 18, 2022, a total of 524 ASF outbreaks in domestic pigs were reported across 12 European countries, namely Bulgaria, Germany, Italy, Latvia, Lithuania, Moldova, North Macedonia, Poland, Romania, Serbia, Slovakia, and Ukraine. This number represents a decrease of 3.6 times compared to 2021 (n=1874), and the list of countries reporting outbreaks slightly changed - 11 countries across Europe in 2021 - Bulgaria, Estonia, Germany, Italy, Latvia, Lithuania, Moldova, Poland, Romania, Serbia, Slovakia, and Ukraine. For two years in a row, the largest number of outbreaks took place in Romania (n=321 and n=1676 in 2022 and 2021, respectively). (Map 1 and 2).

In wild boar, a total of 7081 ASF outbreaks were reported across 15 European countries (Bulgaria, Czech Republic, Estonia, Germany, Hungary, Italy, Latvia, Lithuania, Moldova, North Macedonia, Poland, Romania, Serbia, Slovakia, and Ukraine), which is almost 1.8 times lower than in 2021 (n=12150), however, from 12 countries (Bulgaria, Estonia, Germany, Hungary, Italy, Latvia, Lithuania, Poland, Romania, Serbia, Slovakia, and Ukraine). The most outbreaks of wild boars were reported in Poland two years in a row: 2012 in 2022 and 3221 in 2021.

Overall, there is a tendency to decrease the number of cases of ASF in both domestic and wild pigs. The disease is more often registered among domestic pigs on small backyard farms; however, outbreaks have also been registered in large industrial complexes (e.g., Romania). In addition, the disease was recorded in countries that could eradicate it (e.g., the Czech Republic).



Map 2. African swine fever situation in Europe: January 1, 2021 - December 31, 2021 (Source: FAO [EMPRES-i](#)) - Green dots represent outbreaks of ASF in domestic swine; red dots - in wild boar



Map 3. African swine fever situation in Europe: January 1, 2022 - December 27, 2022 (Source: FAO [EMPRES-i](#)) - Green dots represent outbreaks of ASF in domestic swine; red dots - in wild boar

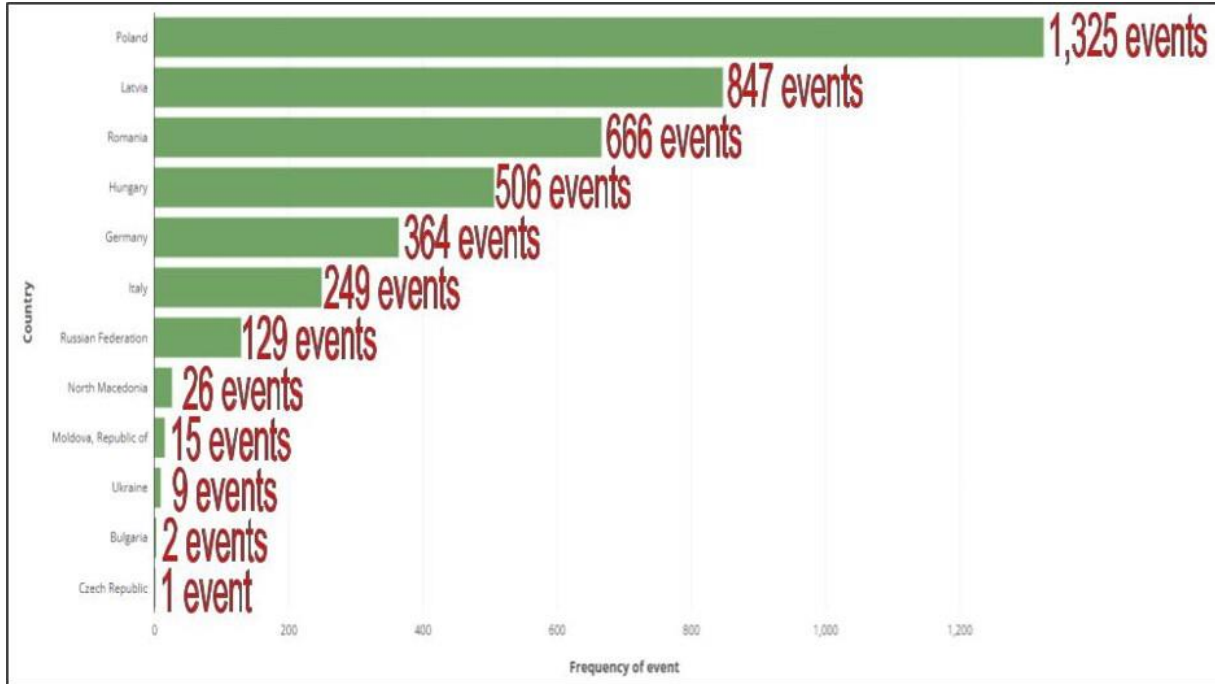


Chart 5. Total number of ASF outbreaks in Europe by country (Source: [FAO EMPRES-i](#))

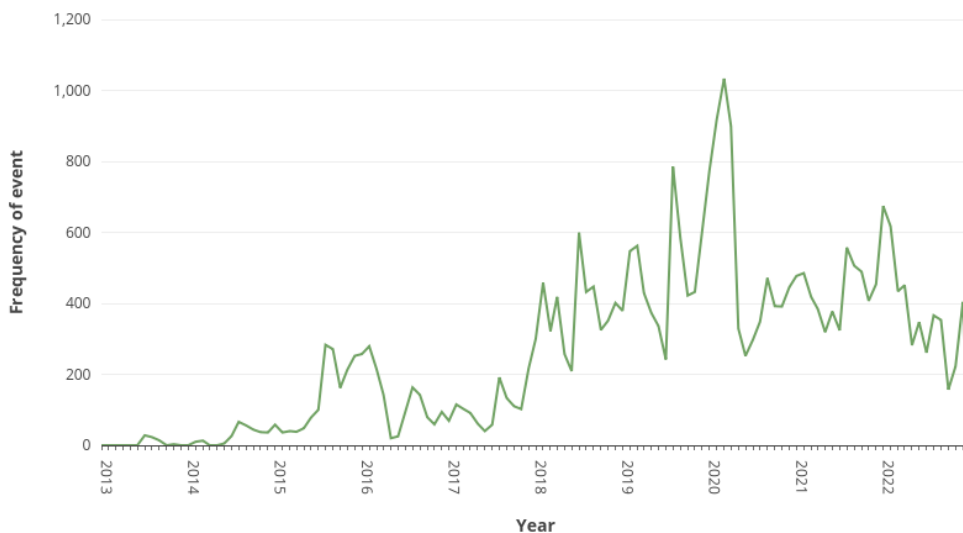
Regional highlights:

- Italy:** in January 2022, a case of ASF (*Genotype II - causing the current outbreaks in domestic pigs and wild boar in mainland Europe, the Asian continent, the Dominican Republic, and Haiti*) in wild boar on the mainland was reported for the first time in the Piedmont region. ASF (*Genotype I*) has been endemic in Sardinia since 1978, although it has never previously been reported on the mainland. In May 2022, ASF was reported in wild boar in the municipality of Rome (several hundred kilometers away from the cases in the Piedmont region) and in Rieti, approximately (100 km from the nearest case). On June 10, 2022, Italy confirmed the first ASF outbreak in domestic pigs on mainland Italy in a small domestic pig farm in the municipality of Rome. As of December 18, 2022, overall, four outbreaks in domestic pigs and 257 outbreaks in wild boars were reported in the country. (Links to the report: [Immediate release](#))
- Poland:** presented a significant reduction in the number of outbreaks reported from the previous year. While in 2021, there were 3,221 outbreaks in wild boar and 124 in domestic pigs, in 2022, a total of 2,012 outbreaks in wild boar and 14 in domestic pigs were reported.
- Romania:** Continues to be the country with the most outbreaks reported in domestic pigs in the region, with 321 outbreaks. Still, this number shows a remarkable reduction from the 2021 total, when the country reported a record of 1,676 outbreaks. Most outbreaks were reported in backyard farms; however, in October 2022, a large pig farm with a population of 39,000 in the western county of Timis was affected. Since the first notification on July 31, 2017, and November 23, 2022, in wild boars, 6,830 cases have been diagnosed in 41 counties.
- Germany:** First reported the occurrence of ASF in wild boar in 2020. That same year a total of 403 outbreaks were registered, and 2,525 in 2021. The first four outbreaks in domestic pigs were reported in 2021. In May 2022, a big jump occurred with the confirmation of an outbreak in domestic pigs on a farm about 500 km from the infected area of the country and approximately 7 km from the French border. In July 2022, another outbreak in domestic pigs about 20 km from the Dutch border was reported. Thus, in late May 2022, ASF was confirmed in domestic pigs in a new region of Germany, near Forchheim in the Emmendingen region (Baden-Württemberg), very close to the border with France, approximately 600 km from the last report of ASF in Germany, representing a significant westward jump across the country. The outbreak was confirmed in a backyard farm with 35 animals, 16 of which died between May 19-24, 2022. There have been no cases reported in domestic pigs in the region

previously, with the last domestic swine case reported in northeast Germany in November 2021. On July 1, 2022, a case of ASF was confirmed in domestic pigs in a new region of Germany, in Emsland, Lower Saxony, roughly 15 km from the Netherlands border, approximately 300 km from the nearest reports in wild boar in Mecklenburg-Vorpommern and 500 km from the recently reported outbreak in domestic pigs in the south of the country, close to the French border. The farm contained 286 sows, 400 suckling piglets, and 1100 fattening piglets. Clinical signs (fever and inappetence) were detected in sows on July 1, 2022, and disease control measures (including 3 km and 10 km zones) were immediately implemented. The farm is located in an area with a high density of pig farms. A further outbreak in the eastern state of Brandenburg, where the disease has been previously reported, was also detected on a holding of 1,300 fattening pigs. Overall, three outbreaks in domestic pigs and 1570 outbreaks in wild boars were reported in the country (Links to the report: [June](#), [July](#)).

- **North Macedonia:** the first outbreak of ASF took place in early 2022, affecting a backyard farm with 18 susceptible animals, since then a total of 30 outbreaks have been reported so far. The first outbreaks in wild boar were reported at the end of March 2022, and so far nine outbreaks were registered in the country.
- **Hungary:** first outbreak occurred in 2018, and since 2020, outbreaks in wild boar have been decreasing. In 2020, Hungary reported 4,001 outbreaks, in 2021, it reported 2,584, and in 2022, there were 535 outbreaks reported. The domestic pig population has not been affected so far.
- **Czech Republic:** almost five years after the last case ASF was confirmed in wild boars - a dead wild piglet that tested positive was found in Jindřichovice pod Smrkem in the Frýdlant region in the Liberec region near the border with Poland. Since the first outbreak on June 26, 2017, no outbreak in the domestic pig population was registered. Prior to re-introduction, the last positive cases of ASF were recorded on February 8, 2018, in a wild boar caught and on April 15, 2018.

ASF burden in Europe throughout the last 10 years



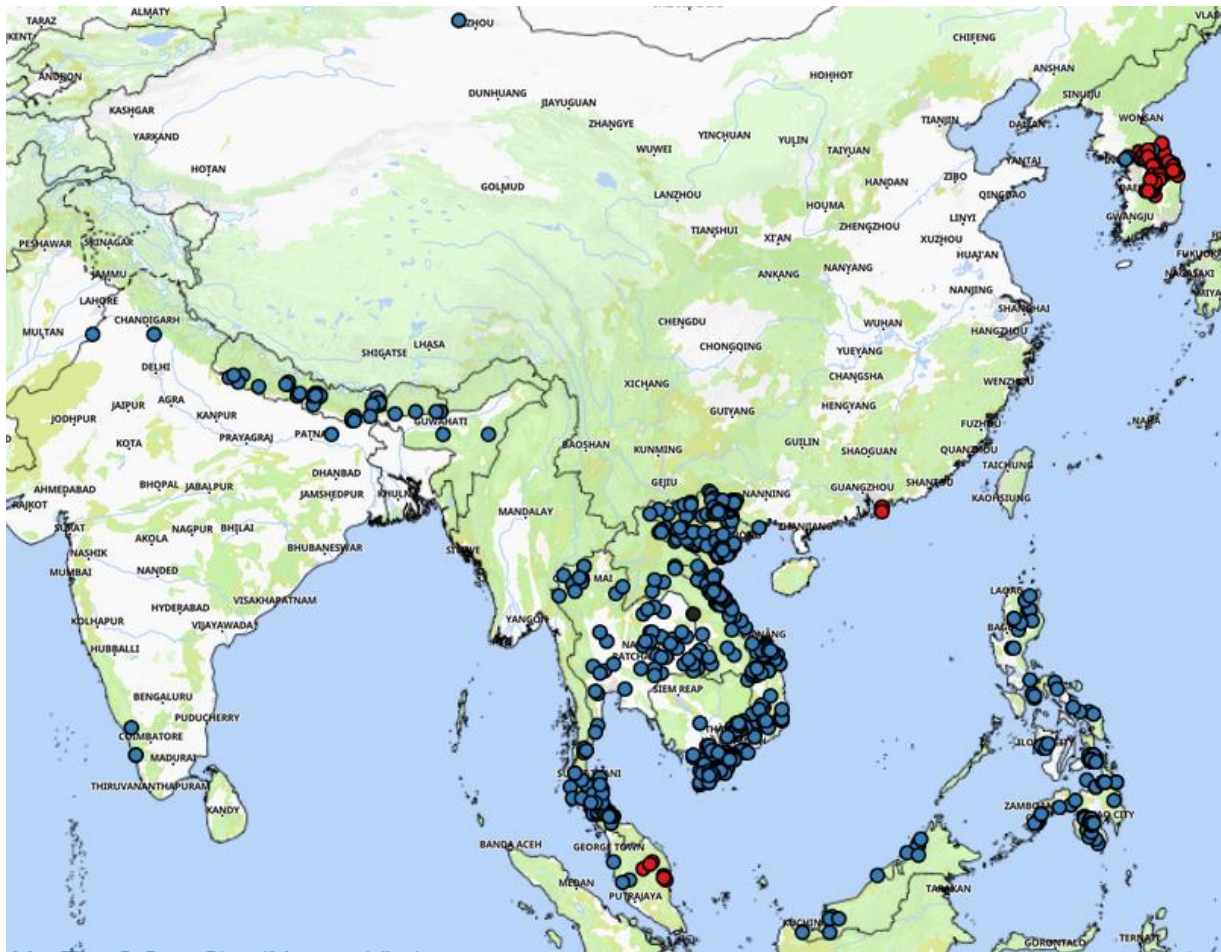
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Chart 6. Dynamics of ASF outbreaks over 10 years in Europe and Russia (Source: FAO [EMPRES-i](#))

ASIA

In 2022 12 countries (Bhutan, Cambodia, China, Hong Kong SAR, India, Lao People’s Democratic Republic, Nepal, Malaysia, Republic of Korea, Thailand, The Philippines, and Vietnam) reported ASF outbreaks in domestic swine and wild boar. (Map 4).

From January 1, 2022, to December 31, 2022, 775 ASF events in Asia were reported to FAO EMPRES-i. Domestic pigs were responsible for 699 of these events, while wild boar accounted for 75 and one event was reported in an unspecified mammal. This year's outbreaks are 316 (29% fewer) than the 1091 recorded in 2021. It is also worth noting that in 2021, more outbreaks were reported in wild boar (716) than domestic pigs (375), however in 2022 more outbreaks occurred in domestic pigs.



Map 4. African swine fever situation in Asia 2022: December 22, 2022 (Source: [FAO EMPRES-i](#)) - Blue dots represent outbreaks of ASF in domestic swine; red dots indicate outbreaks in wild boar

In 2022, Vietnam and the Philippines reported the most outbreaks, while Cambodia and China reported the fewest (Chart 7). ASF outbreaks in wild boar occurred in Eastern Asia, including the Republic of Korea and Hong Kong Special Administrative Region, as well as Malaysia in South Eastern Asia. In comparison to 2021, ASF outbreaks in wild boars were reported in the Republic of Korea, Hong Kong Special Administrative Region, the Philippines, and Malaysia. In Malaysia, wild boar cases were reported only in Pahang in 2022, yet in 2021 ASF outbreaks in wild boar were reported in Pahang and Sabah.

Regional highlights:

- **Vietnam:** As of December 10, 2022, a total of 1,217 outbreaks were reported in 53 provinces/ municipalities in 2022 and 57,914 pigs were culled because of the spread of ASF. In comparison to the same period last year, the number of outbreaks was reduced by 60%, and the number of pigs that had to be killed was reduced by nearly 80%. During the last two weeks of the year (December 12 - 26, 2022), there were ASF outbreaks in 39 communes which is the lowest number of outbreaks since the first detection of ASF.

ASF Vaccine: Following the announcement of the licensure of the ASF vaccine (NAVET-ASFVAC) on June 3, 2022, by the Vietnam Department of Animal Health (DAH), guidelines were set by the DAH for monitoring the quality and use of the vaccine. [Two phases](#) were planned for the use of the ASF vaccine. Phase 1 involves administering the vaccine in a limited geographical region; 600,000 doses are anticipated to be used. Phase 2 involves the DAH reporting to the Ministry of Agriculture and Rural Development to coordinate the use of the vaccine on a national level after the final report on the evaluation of the outcomes of utilizing the vaccine in phase 1 is made public.

- **The Philippines:** As of December 20, 2022, there are still 17 provinces spread in nine regions affected by the disease. In November, the Department of Agriculture launched the Compartmentalization Program of swine farms, one of the major components of the Integrated National Swine Production Initiatives for Recovery and Expansion (INSPIRE) Program. The Compartmentalization program, which is undertaken with the cooperation of the University of Minnesota (UMN), Philippine College of Swine Practitioners (PCSP) and United Batangas Hog Raisers Association (UNIBAT) intends to provide a risk management strategy to protect animal health status, and protect business continuity thus ensuring food security. Under the program, the compartment shall set clear guidelines for its operation, wherein the location of all its components and related units will be clearly identified. These include feed mills, slaughterhouses, and any rendering plants, or farms within compartments.
- **Nepal:** Reported the first occurrence of ASF on March 30, 2022. Since then 33 outbreaks have been reported in seven provinces (Bagmati, Province No.1, Lumbini, Gandaki, Karnali, Sudurpashchim and Madhesh). Since the first report of ASF, there have been [17,226 cases](#), [16,464 deaths](#) in domestic pigs. The outbreaks in Nepal are still on-going and may spread further into the country.
- **Thailand:** Confirmed its first ASF cases in January 2022. Since then [1,197 cases](#) and 795 deaths have been reported in domestic pigs, and 2,584 pigs have been culled to prevent further spread. At the end of 2022 the country had reported a total [107 ASF](#) outbreaks, [12](#) of which are still on-going.

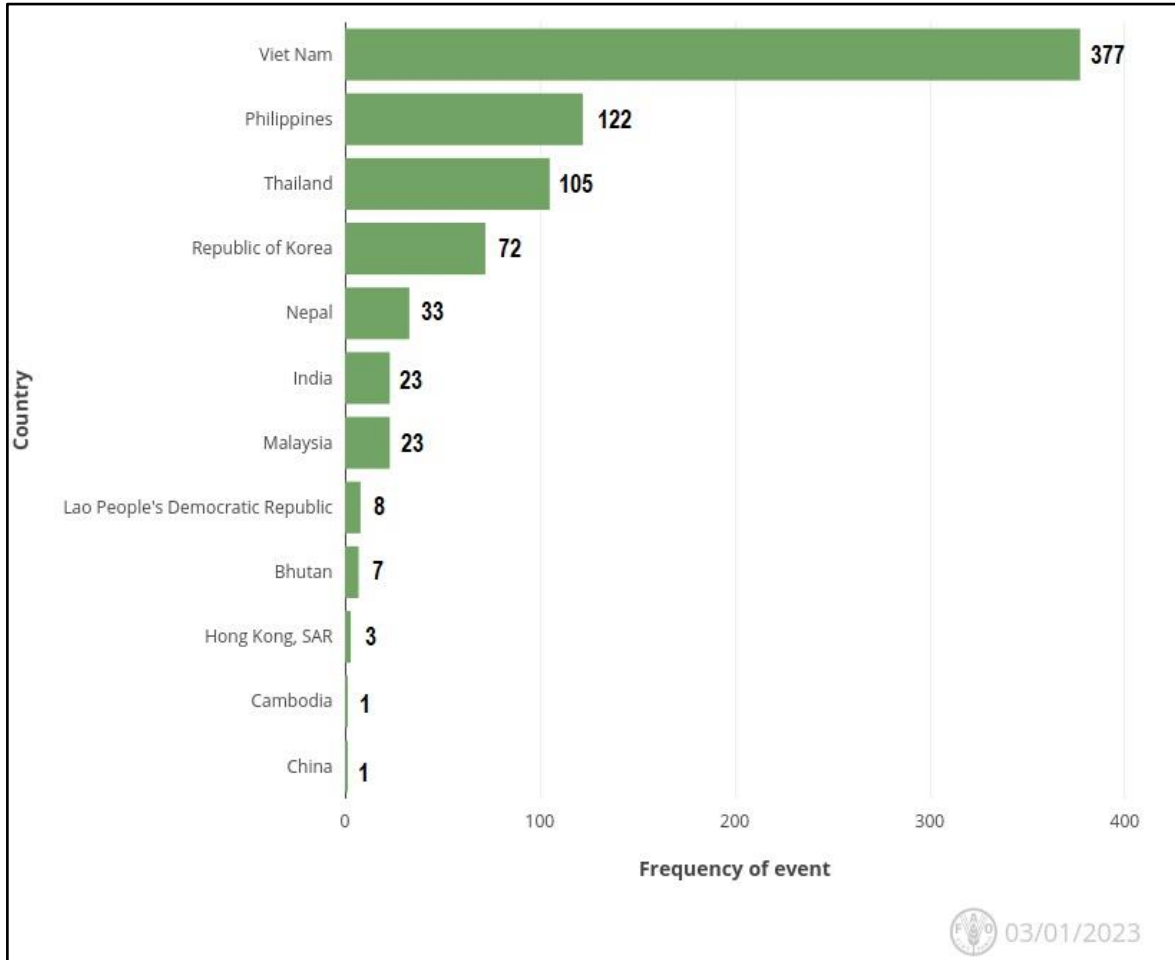
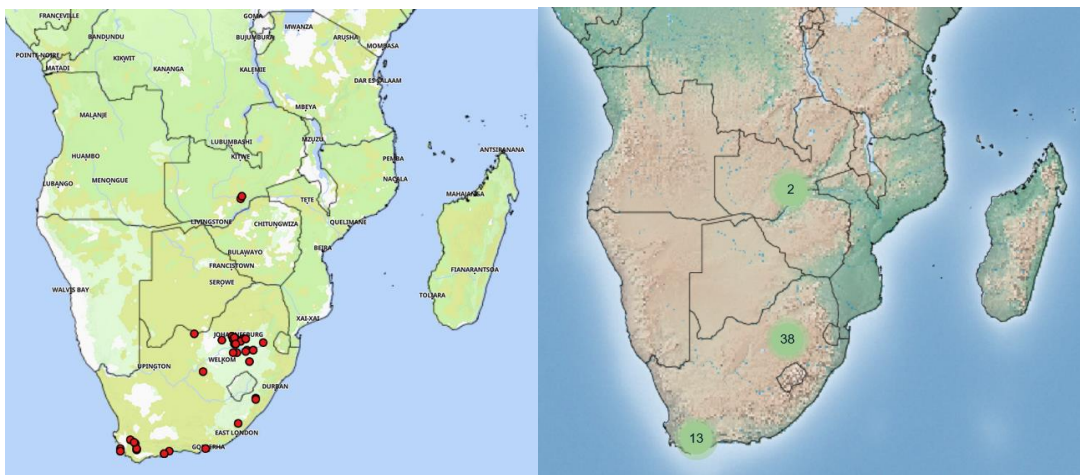


Chart 7: African Swine Fever outbreaks officially reported in Asia in 2022, by country (Source: [FAO EMPRES-i](#)). Number of new outbreaks/events has been combined for both domestic swine and wild boars

AFRICA

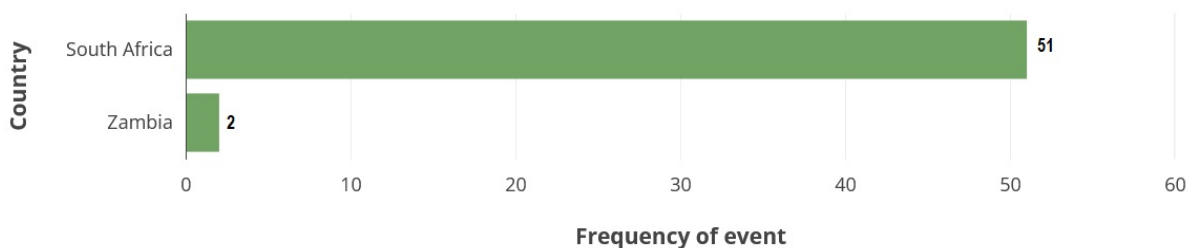


Map 5: African swine fever events in Africa 2022: As of 30 December 2022, 53 disease events were reported in two countries (Source: [FAO EMPRES-i](#))

In 2022, 53 new ASF outbreaks were reported to EMPRESi. These outbreaks occurred in South Africa (51 outbreaks) and Zambia (2 outbreaks). These are fewer outbreaks than the 146 events reported in 2021. The outbreaks in 2021 were reported in South Africa, Tanzania, and Cote d'Ivoire. For South Africa, the 51 new outbreaks reported this year present a 64.3% decrease in outbreaks as compared to 2021, when the country reported 143 ASF outbreaks.

Regional highlights:

- Zambia:** Two epidemiologically separate disease events were reported in 2022. The source of these outbreaks were reported to be the feeding of pigs with swill and illegal animal movements. A total of 1850 cases were reported and 594 deaths and 9184 susceptible pigs. These outbreaks were resolved by December 9, 2022.
- South Africa:** These outbreaks occurred outside the ASF control zone in the north eastern part of the country and some have been on-going since April 2019. In 2022 alone new ASF outbreaks resulted in an estimated 3900 deaths, 5400 cases and more than 26000 susceptible pigs in the affected farms. According to a follow up report to WOAHA on December 13 2022, there were still [48 on-going ASF outbreaks](#) from an event which Apr 15, 2022. For that [particular event](#) there have been 9,113 deaths, 12,473 killed and disposed of, and 10,361 cases since its on-set.



 31/12/2022

Chart 8: African Swine Fever disease outbreaks in Africa in 2022, by country (Source: [FAO EMPRES-i](#)).
 Note: [WAHIS](#) reported 63 outbreaks in 2022 (3 in Zambia and 60 in South Africa)

References:

Recurrent reports reviewed

- WOAH - [WAHIS interface - Immediate notifications](#)
- WOAH - [WOAH Asia Regional office](#)
- FAO - [ASF situation update in Asia & Pacific](#)
- DEFRA - [Animal conditions international monitoring reports](#)
- CAHSS - [CEZD Weekly Intelligence Report](#)
- European commission - [ADIS disease overview](#)

EUROPE

Czech Republic

[An analysis of ASF in the European Union through mid-2022](#)

Italy

[African Swine Fever update](#)

Germany

[African swine fever in Europe: Updated Outbreak Assessment #27](#)

[African swine fever in Europe: Updated Outbreak Assessment #26](#)

North Macedonia

[New country affected by ASF: North Macedonia](#)

Romania

[Update on the evolution of African Swine Fever](#)

[Romania reports ASF outbreak on large farm](#)

Czech Republic

[African swine fever returns to Czech Republic ASIA](#)

The Philippines

https://www.pig333.com/latest_swine_news/philippines-begins-asf-compartmentalization_18852/

Nepal

<https://wahis.woah.org/#/in-review/4458?reportId=158476&fromPage=event-dashboard-url>

Thailand

<https://wahis.woah.org/#/in-review/4236?reportId=157825&fromPage=event-dashboard-url>

Vietnam

<https://wahis.woah.org/#/in-event/4236/dashboard>

<https://www.tayninh.gov.vn/Lists/tintucsukien/DispForm.aspx?ID=27231>

<http://snntuyenquang.gov.vn/tin-tuc/tin-tuc-su-kien/trong-nganh/viet-nam-cong-bo-san-xuat-thanh-cong-vacxin-dich-ta-lon-chau-phi-9854.html>

AFRICA

South Africa

<https://wahis.woah.org/#/in-event/2875/dashboard>

<https://wahis.woah.org/#/in-review/2875?reportId=158205&fromPage=event-dashboard-url>

Zambia

<https://wahis.woah.org/#/in-review/4683?reportId=158238&fromPage=event-dashboard-url>

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