



GIEWS Update

East and Southeast Asia

African Swine Fever is rapidly spreading in East and Southeast Asia threatening food security and livelihoods of households relying on pig farming

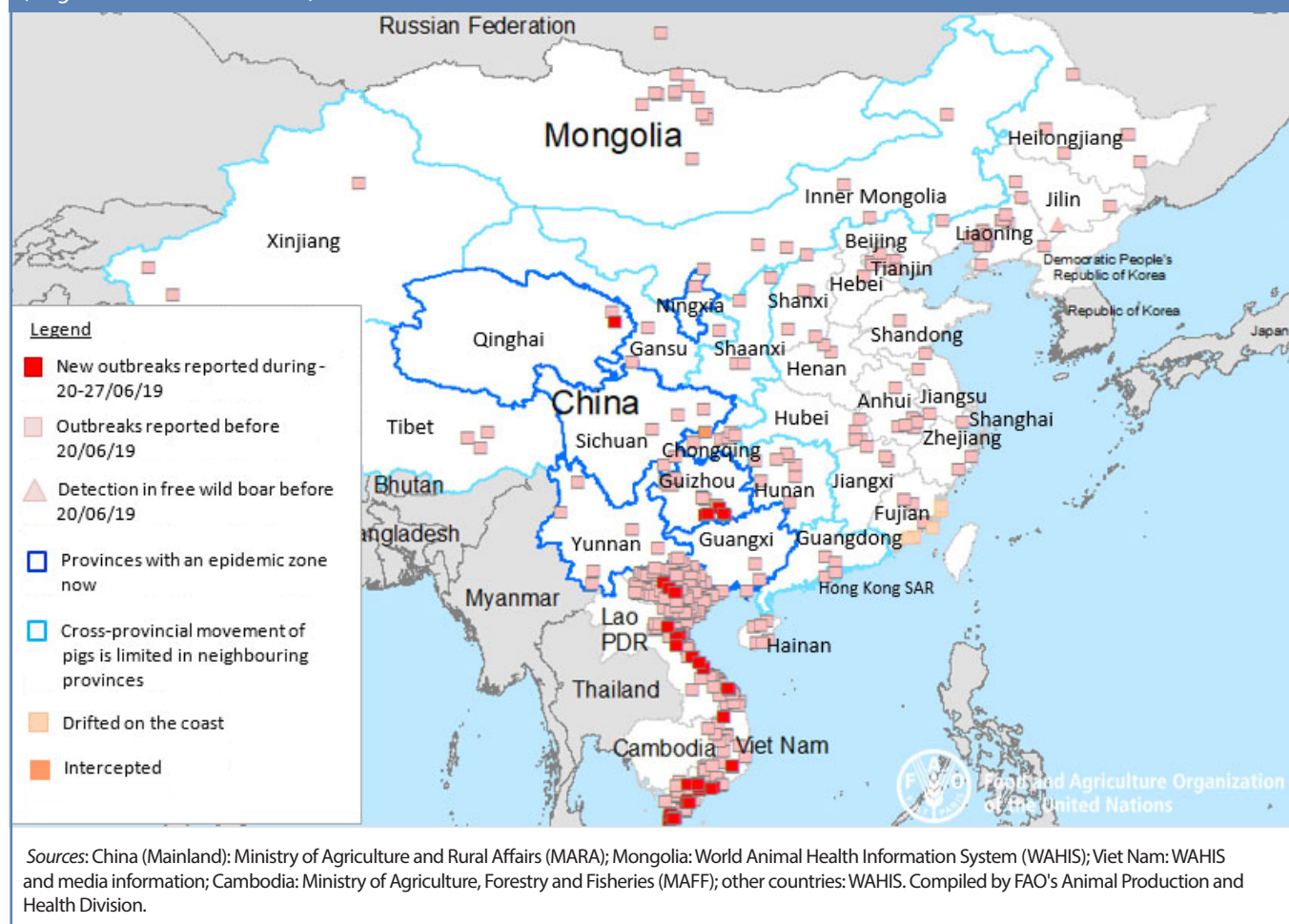
Highlights:

- African Swine Fever continues to spread within East and Southeast Asia, leading to the death and the culling of millions of pigs.
- The disease poses a serious threat to the livelihood and food security of large numbers of people relying on the production and processing of pigs. Pig meat accounts for almost half of the meat quantity produced in the subregion and is a key source of animal protein and income.
- The disease is having a significant impact on global markets, with prices of pig meat rising rapidly between February and May 2019.

African Swine Fever (ASF), a contagious deadly viral disease affecting pigs and wild boars, is rapidly spreading across East and Southeast Asia, threatening the livelihood and food security of millions of people, particularly of vulnerable subsistence pig farmers. The disease can spread through direct or indirect contact with infected domestic or wild pigs and can persist for a long time in the environment and in a variety of uncooked swine products. Since **China (Mainland)** reported the first ever outbreak of ASF in the country in early August 2018 in the northeastern province of Liaoning, the disease has spread rapidly and has now reached almost all provinces of the country. Overall, as of mid-June, 32 out of the 34 provincial level administrative divisions, excluding Macau and Taiwan, are affected in China (Mainland) and more than 1.13 million pigs have been culled in an effort to halt the spread of the disease. Despite the actions taken by the Government of China, ASF continues to spread. According to FAO's Emergency Prevention System for Animal Health, the disease has been reported in **Viet Nam, Cambodia, Mongolia, the Democratic People's Republic of Korea** and, most recently, **the Lao People's Democratic Republic** (see Figure 1), where millions of pigs perished or have been culled. While official sources in the affected countries

confirm numerous outbreaks and a rapid spread of the disease, it is likely that ASF may have a wider distribution than currently assumed. One of the main drivers of the epidemic is the small scale structure of most of the pig industry in the subregion, as small scale pig farmers often lack appropriate biosecurity measures. In the Chinese pig production system, small scale producers contribute to about 30 percent of the national pig meat production. In Viet Nam, the share is higher representing 50 percent and it reaches almost 80 percent in Cambodia and the Lao People's Democratic Republic. This hampers the implementation of biosecurity standards, an important measure that can contribute halting the spread of the disease. Small scale producers normally feed their animals with table scraps or uncooked organic refuse (swill) in which the virus can persist if it is not previously cooked. There is also lack of a vertical integration in the pork industry in most of the affected countries, which means that piglets and sows need to be transported between farms and sometimes even across the regions. This further supports a rapid and far-reaching spread, either from the introduction of infected or ill animals or the entry of contaminated vehicles and equipment in the pig confinements. Finally, intra-regional trade of pig meat products, which may be contaminated, has also

Figure 1: Geographical spread of ASF in Asia
(August 2018 to mid-June 2019)



contributed to the high prevalence of the disease. As a result, animal health experts believe that the disease will inevitably spread farther in the coming months. This is expected to have far-reaching implications within as well as outside the subregion (see [Food Outlook - Special Feature](#)), as China (Mainland) is the largest pig meat producer worldwide and a massive decline of its pig inventories will inevitably have an impact on global pork markets.

What is ASF?

ASF is a contagious viral disease that affects pigs and wild boars causing high fever, internal bleeding and can kill up to 100 percent of the infected animals within a few weeks, as there is no treatment or vaccine available. The disease is harmless for humans. It spreads easily between domestic and wild pigs through direct contact, the feeding of contaminated food and fomites, including shoes, clothes, vehicles and equipment. Currently, there is no effective vaccine available to control or prevent the spreading of ASF.

The spread of ASF in East and Southeast Asia

Since **China (Mainland)** reported the first ever outbreak of ASF in the country in early August 2018 in the northeastern province of Liaoning, the disease has spread rapidly and now reached almost all provinces of the country. Overall, as of mid-June, 32 out of the 34 provincial level administrative divisions, excluding Macau and Taiwan, are affected in China (Mainland); more than 1.1 million pigs have been culled in an effort to halt the contamination (see Figure 2). Reports from the country indicate that ASF has severely affected also medium and large scale farms, raising serious concerns that the spreading of ASF and the number of dead pigs may increase sharply in the coming months. Despite the actions taken by the national veterinary authorities, including the restrictions of transporting pigs between provinces, stopping the activities of slaughterhouses where ASF is detected and the prohibition of swill feeding, the disease continues to spread. In **Mongolia**,

Figure 2: ASF outbreaks in China (Mainland), by province
(August 2018 to mid-June 2019)

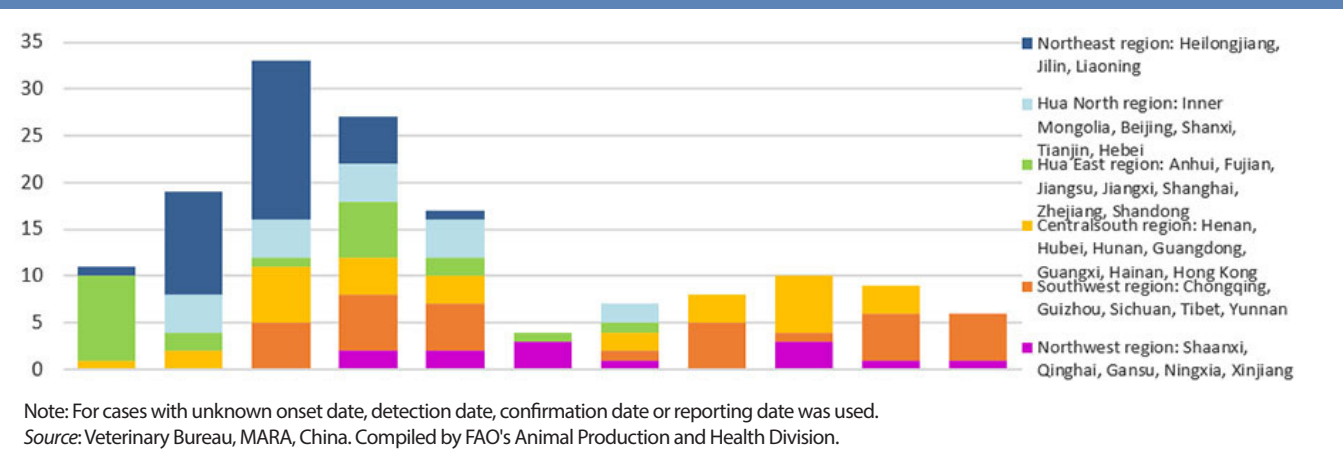
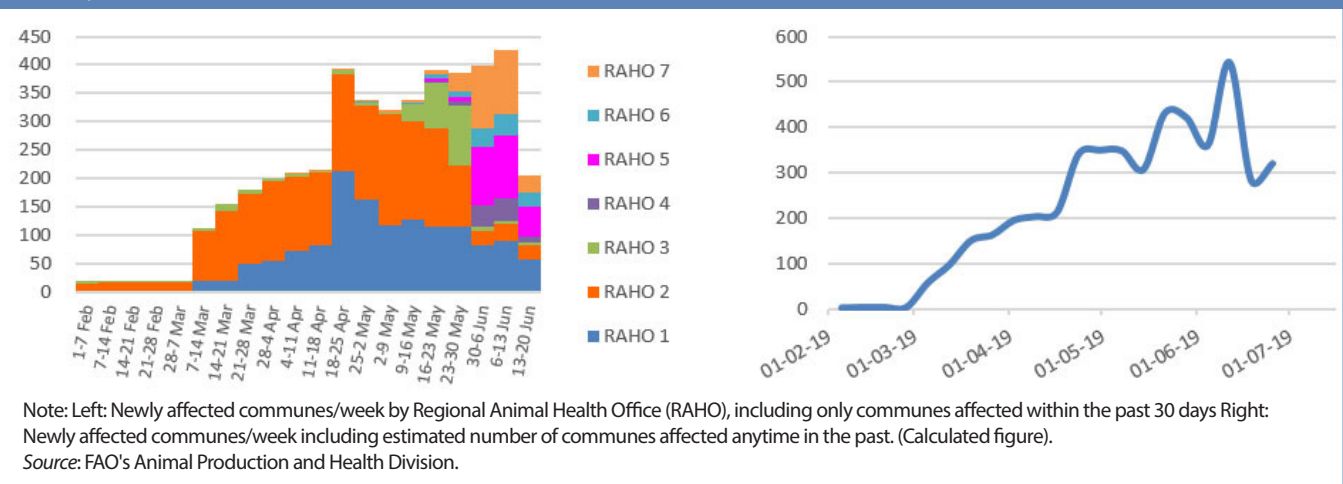


Figure 3: ASF outbreaks in Viet Nam, by province
(February to mid-June 2019)



ASF outbreaks were reported for the first time in January 2019. As of 12 June, 11 outbreaks of ASF were reported in seven out of 21 administrative divisions involving 105 farms and herder households. At least 3 115 pigs died or have been culled in response to the outbreak (representing more than 10 percent of the total pig population in Mongolia). ASF was confirmed in **Viet Nam** on 19 February, with current estimates indicating its presence in 60 out of 63 administrative divisions of the country (see Figure 3). According to the latest estimates by the Ministry of Agriculture and Rural Development (MARD), more than 2.6 million pigs, accounting for almost 10 percent of the national herd, have died or have been culled.

The first ASF outbreak in **Cambodia** was confirmed in April, in **the Democratic People's Republic of Korea** in May, followed by **the Lao People's Democratic Republic** in June, with official information suggesting that in the affected areas a large number of animals have perished. The risk for the progressive spread of the disease in the region remains high due to resistance of the ASF virus to environmental factors and disinfectants. In addition, a large number of value chain actors, including with long distance transportation of pigs, pork products, feed and other supplies, and prevailing small scale pig farming with low level of biosecurity, make it difficult to control the spread.

Impacts of ASF in East and Southeast Asia

Impact on pig production and trade

The actual magnitude of the ASF impact on pig meat production in Asia is currently uncertain. In April 2019, prior to the rapid escalation of ASF infections, FAO forecast pig meat production in Asia at 60.7 million tonnes, 9 percent below the 2018 high level. The contraction of the subregional output mainly reflects a sharp decrease in **China (Mainland)**, the world's main pig meat producer, where the output is anticipated to decline by at least 10 percent in 2019 compared with 2018, to 49.1 million tonnes. Sizable production decreases are foreseen also in **Viet Nam**, the second largest pig meat producer in the subregion, as well as in **Cambodia, Mongolia** and **the Democratic People's Republic of Korea**.

The rapid depletion of the subregional pig inventory, particularly in **China (Mainland)** and **Viet Nam**, could result in a serious protein supply gap, with an ensuing increase in import requirements. Based on information available in April, FAO forecasts the 2019 subregional imports of pig meat at about 5.2 million tonnes, an increase of at least 10 percent on a yearly basis. Pork meat purchases by **China (Mainland)** have started to increase, with official estimates indicating that pig meat imports have already increased by 10 percent between January and April, reaching 570 000 tonnes (carcass weight equivalent). However, considering that the combined production of the five largest pig meat producers (the European Union, the United States of America, the Russian Federation, Brazil and Canada), is below the level of China's pig meat consumption, part of the animal protein shortage is foreseen to be covered by increased imports and domestic production of other meat types, particularly poultry.

Impact on markets

In **China (Mainland)**, the prices of pig meat soared between February and early March, but have since stabilized due to the release of frozen stocks into markets, in response to the high prices, and increased sales of fresh meat, as pig producers decided to slaughter more animals over concerns about the

future impact of ASF. The international market had also reacted to concerns about the impact of ASF, and partly reflecting the risk posed by disease to pig supplies, price hikes were registered in the Chicago Mercantile Exchange¹ between February and May 2019.

Impact on livelihoods and food security

The spread of ASF raises concerns over the livelihood activities and the food security situation of millions of people dependent on pig farming. The outbreak is particularly affecting vulnerable subsistence small farmers as they usually lack the expertise and/or funds necessary to protect their herds from the disease. In **China (Mainland)**, at least 130 million households are engaged in pig farming and about 30 percent of the national pig output is produced by small scale producers. In **Viet Nam**, pig farming is the main livelihood activity of 2.5 million households. Similarly, in other countries of the subregion, including **the Lao People's Democratic Republic, Cambodia** and **Myanmar**, small scale pig production significantly contributes to the incomes of large segments of the population. Reports from the countries have already indicated that animal losses caused by ASF have caused reductions of farmers' incomes in the affected countries. The damage due to losses of pigs is compounded by restrictions imposed by the governments to contain the spread of the disease, including limitations on transportation and sales of live pigs and pork products from regions where the presence of ASF has been confirmed. These cautionary measures severely constrain the marketing of healthy animals, further damaging households' livelihood activities, considering their heavy reliance on markets. On the other hand, part of the protein supply gap caused by reduced pork consumption is expected to be covered by increased demand for other types of meat, in particular, poultry. The substitution effect is already visible in the affected countries, with reports indicating that domestic production and imports of other types of meat is increasing. ASF is also expected to have serious implications on the consumption patterns in the affected countries. Pork is one of the world's most widely consumed animal protein source and is the most consumed meat in several countries of the

¹ The Chicago Mercantile Exchange (CME) is a global derivatives marketplace based in Chicago, the United States of America.

Figure 4: Hog prices - CME futures and China's spot prices*(June 2018 to mid-June 2019)*

Sources: FAO, Reuters and CME.

subregion, including China (Mainland), Cambodia, Viet Nam, the Philippines, Thailand and Myanmar. If the problem lasts over the medium term, a shift towards the consumption to other source of proteins, mostly poultry, is expected. Moreover, the decline in pig meat production and the depletion

of the current frozen stocks are expected to result in price hikes. In consideration that pork is largely consumed by poor households, and given the likely increase in prices, food security conditions of the most vulnerable segments of the population are expected to be adversely impacted.

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