Pig virus imperils food security in Borneo

African swine fever has devastated pig populations in Asia since 2018 (*1*). On the island of Borneo, which includes the country of Brunei, the Malaysian states of Sarawak and Sabah, and Indonesian Kalimantan, bearded pigs (*Sus barbatus*) were once the most numerous large mammal species (*2*), but African swine fever has led to population declines of 90 to 100% (*3, 4*). The substantial drop may warrant a conservation status uplisting from Vulnerable to Critically Endangered (*5*). The loss of pigs disrupts food security and ecosystems and threatens other endangered wildlife.

In the past, bearded pigs constituted 81% of hunted wildlife weight in villages in East Kalimantan (*6*). The state of Sarawak alone once harvested a million bearded pigs per year (*2*), and Sabah's annual hunted pig weight was estimated at 8.6 million kg (*7*). Although the Muslim population of Borneo does not eat pork, the pig population collapse affects the livelihoods and cultural traditions of millions of non-Muslim people.

The decline of Borneo's pig population also poses unknown ecological effects. Wild pigs are important seed predators that play a substantial role as ecosystem engineers (*1*). In addition, in the absence of pigs, local people are likely to shift their focus to hunting endangered species, such as pig-tailed macaques (*Macaca nemestrina*) (*8*).

Although African swine fever has garnered substantial attention in countries with major pork industries (*9*), its effects in Borneo have been largely overlooked. Resistance to the disease in domestic pigs in southern Africa has been identified, but the basis for resistance remains unknown, especially in wild pigs (*10*). There is no evidence indicating that wild pig populations can fully recover in Borneo or on other islands in South-East Asia where the disease has taken a toll, including Java, Sumatra, Timor-Leste, and the Philippines (*11, 12*). Urgent research and interventions, with the participation of rural communities, should focus on preventing the spread of African swine fever to other regions where people depend on pigs, such as the island of New Guinea.

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