Southeast Asia is preparing for a long war against African swine fever (ASF), a highly infectious and lethal disease that reached China in 2018 and has since spread south, threatening both domestic and wild pigs.

After plans to eliminate it by euthanizing pigs on a large scale proved economically, logistically, and politically unworkable, authorities throughout the region have recognized that.

“we’ve got to learn to live with the virus,” says Dirk Pfeiffer, a veterinary epidemiologist at the City University of Hong Kong.

The emerging approach focuses on bolstering biosecurity at legions of small farms by isolating domestic pigs from wild and roving swine, improving sanitation, and eliminating pork scraps from feed.

Experts believe such modest steps would work best if part of a coordinated regional strategy.

This disease “doesn’t respect borders,” says Karma Rinzin, a veterinary epidemiologist at the World Organisation for Animal Health who will gather with other specialists to hammer out a multinational strategy at a 2–4 May meeting in Manila, Philippines, sponsored by the Association of Southeast Asian Nations (ASEAN).

ASF is harmless to humans but causes high fever, internal bleeding, and fluid-filled lungs in pigs, killing up to 90% of infected animals.

Endemic in much of Africa, it spread to Western Europe in the late 1950s but was eliminated by the mid-90s. A second incursion from Africa reached the nation of Georgia in 2007.

The virus gradually spread east and was confirmed in China in August 2018. Now, “ASF is everywhere” in Southeast Asia, says Yooni Oh, regional ASF program coordinator for the United Nations Food and Agricultural Organization (FAO).

In addition to disrupting farm operations, conservation scientists fear the virus will push some threatened and endangered wild pig species closer to extinction.

In China, officials followed the elimination playbook, culling herds with infected animals as well as euthanizing pigs in a 3-kilometer zone around infected farms.

Farmers were compensated for their losses, but the campaign helped reshape the nation’s pork industry, Pfeiffer says.

Few countries in Southeast Asia can match China’s response. Most of the region’s pig farmers raise just 10 to 20 pigs each and can’t afford to lose income, even if they are compensated for the costs of culled animals. “Realistically we cannot continue to keep culling pigs; [it is] not solving the problem,” Pfeiffer says.

Instead, authorities are focusing on more modest biosecurity improvements to contain outbreaks.

New FAO guidelines, for example, recommend that small farmers fence in their pigs, limit farm visitors, regularly disinfect pens and farm vehicles, and don clean clothes and boots before tending to their herds.

Farmers shouldn’t feed pork scraps to their animals, and Oh says they also should stop mating domestic sows with wild pigs, something many people believe “makes the meat taste better.”

Last year, FAO tested these and related measures on 20 farms in the village of Sagcungan on the Philippines’s Mindanao Island, spending a modest $325 per farm.

The result “was a paradigm shift in attitude among farmers,” says Samuel Castro, deputy head of the Philippines’s ASF prevention and control program.

To protect wild pigs, Malaysian officials have banned hunting the animals in Sabah.

A vaccine could protect domestic and wild pigs. The U.S. Agricultural Research Service and Vietnam’s National Veterinary Joint Stock Company are at work on one, based on a virus strain that lacks a gene linked to virulence.

Vietnam is testing it in up to 600,000 pigs. And a Spanish group is working on an oral vaccine that could be incorporated into bait offered to wild pigs.

But for now, WHO says, “Vaccines are not yet an option for controlling ASF—but biosecurity is.”