**Supporting Vietnamese Smallholder Pig Producers Prepare For African Swine Fever**

Jennifer Manyweathers[1]
Lynne Hayes[1], Marta Hernandez-Jover[1], Yin Li[2], John Xie[1], Huyen Ninh Thi[3], Cuc Ngo Thi Kim[3], Jen Kelly[2] and Jen Bond[1]
[1] Charles Sturt University, Gulbali
[2] CSIRO
[3] National Institute of Animal Science

African swine fever (ASF) was detected in VietNam pig herds in 2019, with impacts on supply and the price of pork, and social and economic consequences for all Vietnamese people.

The need for an improved understanding of biosecurity challenges at a smallholder level was identified during the national response, with support from CSIRO Resilient Agriculture and Food under Aus4Innovation. With the National Institute for Animal Sciences (NIAS), under the Ministry of Agriculture and Rural Development, Charles Sturt University piloted data collection approaches to inform decision makers about the vulnerability of smallholder pig producers to outbreaks of disease.

Using a vulnerability framework, a questionnaire was designed, piloted, and distributed in three provinces by NIAS officers. Charles Sturt researchers undertook descriptive analysis and developed a Bayesian Network model that considered likelihood of exposure and capacity to respond to an ASF outbreak.

Findings suggest that Hoa Binh province, was likely to be more vulnerable to a disease incursion, according to the assumptions within the model. The model also showed a high sensitivity to the percentage of income that producers depend on pigs for. Producers who rely on their pigs for more than 50% of their income, were likely to be less vulnerable to a disease incursion than those that have other income sources.

The pilot shows that data can be collected to better inform decision making and capacity building for pig producers in VietNam. Many challenges and opportunities have been identified that can be acted upon to strengthen pig biosecurity for smallholders.