



Early Signs of Systemic Change

Recovery and resilience

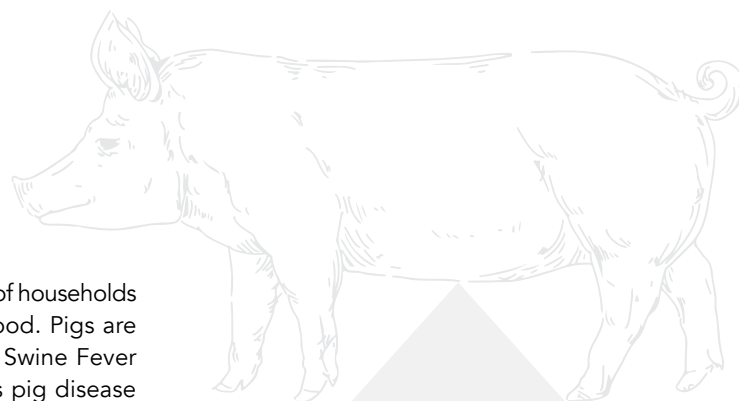
Changing Timor-Leste's pig market system

Pigs are vitally important to Timorese farmers - 80 per cent of households own pigs. They are a source of savings, income, and food. Pigs are also used in cultural ceremonies. The arrival of African Swine Fever (ASF) threatened all of this. (ASF is a highly contagious pig disease first detected in Timor-Leste in September 2019 that has since killed close to 25 per cent of the national herd. The fatality rate is high and there is no treatment or vaccine currently available.

Building awareness among pig farmers about the disease, its potential impact and prevention is vital. In early 2020, in partnership with the Timorese Ministry of Agriculture and Fisheries (MAF), MDF supported the design of a communications campaign for this purpose. Utilising high quality reading material and video content, the innovative campaign was launched nationwide in July 2020. The objective was to build awareness about ASF and encourage improved biosecurity practices to reduce pig deaths. The intervention was highly effective in changing farmer behaviour, with MDF estimating that over 200,000 farmers received information from the ASF campaign through various channels, which improved the capacity of 64,000 farming adults to prevent disease in livestock.

Even before the arrival of ASF, Timor-Leste's pig sector faced challenges. Farmers had limited access to improved breeds and implemented only basic rearing practices. Pig supply was low. Farmers could not find pigs and butchers could not purchase the animals for slaughter. With devastating effects, ASF exacerbated the existing issues while adding an urgent need for enhanced biosecurity.

MDF signed multiple interventions in 2020 and 2021 to address these challenges and opportunities. The main emphasis was to improve the availability of commercial pig feed, promote more productive pig rearing practices and increase the availability of piglets in several districts through improved breeding operations. Combined, these interventions are now starting to show signs of accomplishing system-wide changes in Timor-Leste's pig sector, although much remains to be done.



MDF systemic change pathway

Resilient and scaled system-wide impact
(Respond)

Sustained functional impact at scale
(Expand)

Sustained small-scale functional change
(Adopt → Adapt)

Adopt/Adapt

MDF's assessments have identified increased adoption of commercial pig feed by farmers, with two input partners recording over USD31,000 (AUD43,000) in turnover from pig feed sales. Farmers are also adopting the better husbandry practices advocated by the MDF-MAF awareness drive, including building pig pens, regularly cleaning the pens, barring people from entering the pens and stopping the feeding of meat scraps to the animals. To cater to the piglet shortage, more farmers have entered the pig breeding business, as MDF signed four new interventions in pig breeding in 2021.

Expand

There are encouraging early signs of farmers and agri-input retailers expanding into the pig feed and breed markets on the back of higher demand. Several demo-plot farmers supported by MDF have become, or have shown an interest in becoming, pig feed retailers. Similarly, seeing the market opportunity in the piglet shortage, several farmers and agri-input retailers supported by MDF interventions are exploring a move into pig breeding. However, many farmers have as yet only expressed an interest in shifting into the new areas and are likely to require support. Given the challenges posed by ASF and the limited information available among farmers concerning commercial models for pig breeding and feed, MDF may need to support these market actors until they can independently go forward with operations.

Examples of expansion include:

- Saknuka Unipessoal Lda: one of the demo-plots set up by MDF under Casa Agricultura. In 2021, Saknuka expanded into breeding pigs and sold more than 100 piglets in various municipalities.
- Tito dos Santos Costa: an MDF-supported demo plot farmer. Tito established his own commercial pig feed and breeding company, Maucali Metin Unipessoal Lda. MDF is supporting the business's expansion.
- Gregorio da Silva: an MDF-supported demo-plot farmer. Gregorio successfully expanded his farm from two pigs to more than 50 pigs. He has now expanded his operation to sell piglets and commercial feed and share information on ideal rearing practices with farmers.

Respond

There are a few nascent signs of other market actors in the system responding to MDF's innovations – MAF being key. MDF and MAF worked closely together on the various aspects of the ASF campaign, such as developing key messages, designing content and collaborating on media. While developing MAF capacity was not a priority, MDF has since observed positive changes in the Ministry's online platforms, in terms of both content and digital presence. This was particularly evident during the second collaboration with MAF on a communications campaign on Fall Army Worm, with MAF taking a proactive role in online engagement. With a second wave of ASF taking hold in late 2021, MAF has expressed interest in replicating MDF's biosecurity trainings and taking on a bigger role. MDF will build the capacity of MAF's extension officers to conduct the training themselves. Given MAF's vast scope of operation and authority, this change has the potential to result in better information-sharing in the agriculture sector, particularly on the topics of crop and livestock diseases.

Pigs are an important economic and social commodity in Timor-Leste. While the continued threat of ASF looms, there are positive signs of change on farms, in businesses and in government offices. MDF's interventions are expected to continue to benefit pig farmers in 2022 and beyond by reducing the spread of the virus, improving productivity and increasing the availability of piglets.

