

Enhancing African swine fever control strategies in South Africa: Contributions to disease introduction and spread by smallholder pig farmers

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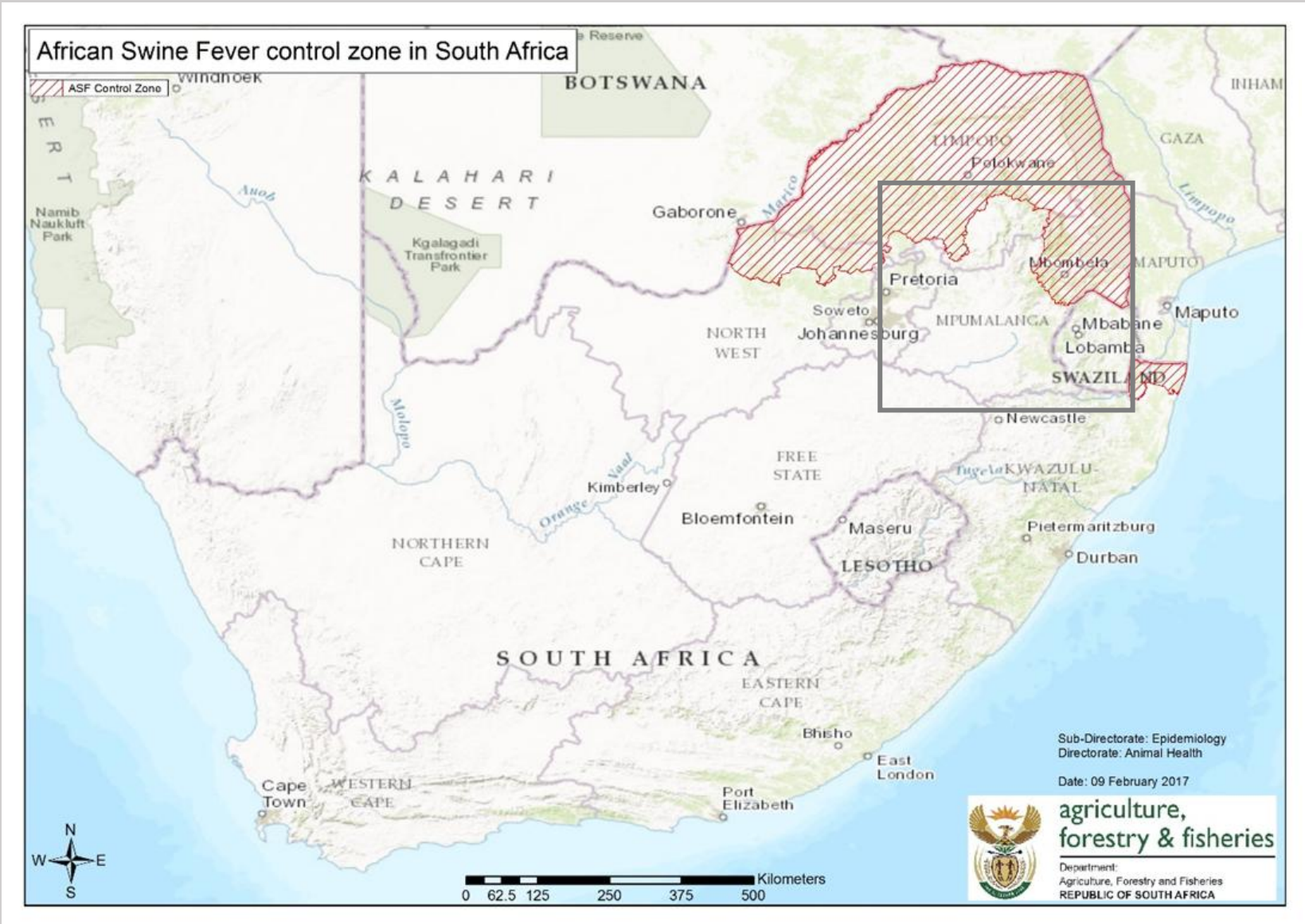


Figure 1 | Map of Mpumalanga Province in relation to South Africa's African swine fever control zone (DAFF 2017)



Figure 2 | Training of Mpumalanga Veterinary Services officials, July 2024. Over the course of seven training sessions, 87 Animal Health Technicians and dip tank assistants from Mpumalanga Veterinary Services (MVS) were trained to collect project data through the electronic questionnaires.

In 1935 South Africa established a historically effective ASF control zone (Fig. 1), delineated by the habitat range of ASF virus sylvatic hosts (warthogs) and vectors (soft ticks). Since 2012, the number and intensity of ASF epidemics beyond the control zone have increased alarmingly. The evidence indicates an **emergent pig-pig transmission cycle** driven by **high-risk management practices**, often associated with **resource-poor production systems** is responsible (Janse van Rensburg et al. 2020). Currently, local ASF transmission dynamics remain poorly understood, vet services continue to be overwhelmed, data are scarce, and risks remain unquantified.

This study aims to address knowledge gaps relating to small-scale pig farm demographics, production practices and trade, to determine the contribution of these variables to the pig value chain.

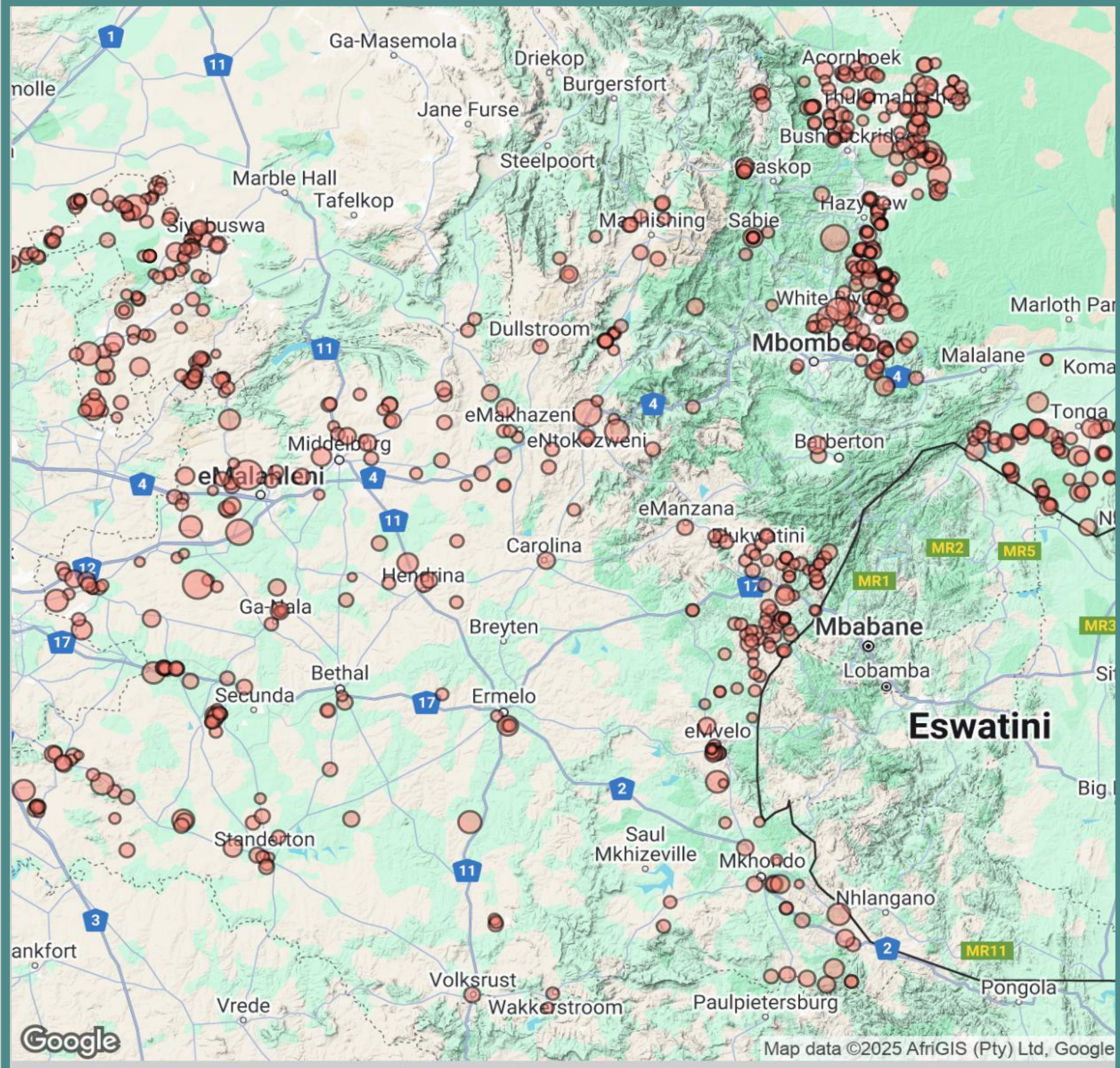


Figure 3 | Map of 770 questionnaires administered to non-commercial pig owners in Mpumalanga from July to December 2024 by farm size

