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Management of classical swine fever and foot-and- mouth disease in Lao PDR

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Management of classical swine fever and foot-and-mouth disease in Lao PDR

**Proceedings of an international workshop held in Vientiane,
Lao PDR, 20–21 November 2006**

Editors: J.V. Conlan, S.D. Blacksell, C.J. Morrissy and A. Colling



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Future research directions for classical swine fever and foot-and-mouth disease in Lao PDR: A facilitated session to capture the skills and experience of workshop delegates

Ross Cutler^{1,2} and James Conlan³

Introduction

At the close of the workshop, a facilitated session was held to explore future directions for the control and management of classical swine fever (CSF) and foot-and-mouth disease (FMD) in Lao PDR. The workshop was attended by experts in their fields from the People's Republic of China, Thailand, Myanmar, Cambodia, Vietnam, Lao PDR and Australia, and other representatives from a range of non-government organisations and international development projects. The session was designed in such a way as to best capture the skills and experience of attending delegates to progress ideas in an environment where all participants were able to make a contribution to the discussion.

The workshop participants were divided into five groups in a manner to ensure an even representation across countries. Two leaders were assigned to each group, one to record answers on a whiteboard and the other to facilitate discussion within the group. The leadership personnel comprised Lao and Australian project staff and the session was facilitated by the first author. The session method is described in Figure 1.

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Outcomes

The first question to be addressed by the groups was:

With regard to FMD and CSF projects in Lao PDR, what have been the successful elements?

The key responses are summarised as follows:

Information exchange (regional and local) during outbreaks

- established networks of farmers—district, provincial, national, international
- network of people to report and respond

Knowledge

- improved management skills, training, disease control skills and public awareness
- international cooperation
- improved capacity at all levels
- farmers sensitised about diseases and control

Vaccination

- benefits of vaccination, how to use, information about transport and storage
- improved knowledge of how to produce and deliver a good-quality vaccine
- increased vaccination coverage
- standardised laboratory and vaccine production and training

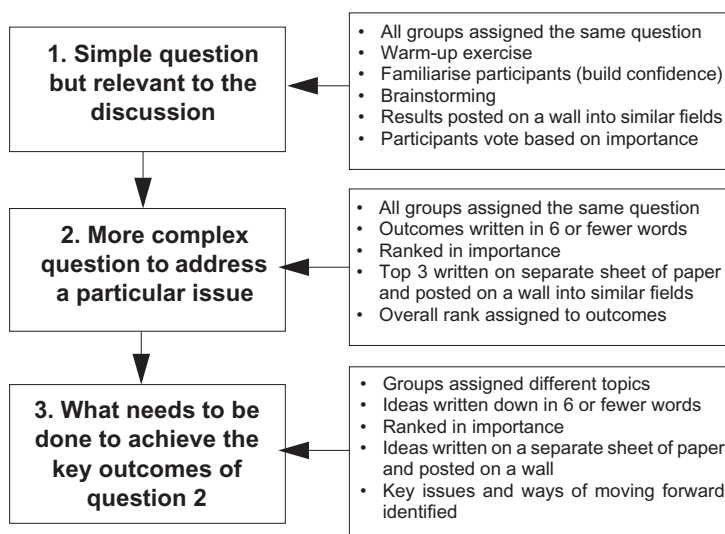


Figure 1. Flow diagram describing facilitated session method

Improved diagnostic capacity: new diagnostic tests

- IMB-ELISA for rapid CSF diagnosis
- quality control improvements
- strengthened sample collection and transport (diagnostic network)

Animal movement control

- local and trans-boundary control.

Each delegate voted for the three most important outcomes of CSF and FMD projects and the results are as follows:

Outcome	Score
Knowledge	15
Vaccination	13
Information exchange	10
Improved diagnostic capacity	7
Animal movement control	2

The session proved successful in introducing the participants to brainstorming and understanding the session format. Delegates were now able to proceed to exploring future possibilities.

The second question was:

What more would you like to see achieved?

The responses and relevant scores were:

Establishment of regional CSF reference laboratory (score 9)

- provision of standard reagents to participating countries
- strain characterisation
- training

Greater disease awareness for farmers and advisers (score 20)

- capacity building for farmers and district agricultural extension staff
- increased capacity of district agricultural extension staff
- organised education material for farmers and provision of better access to education
- increased disease recognition, diagnosis and control capacity
- networking for reporting and response

Training of more veterinary staff (score 20)

- more veterinarians needed in Lao PDR
- training of more veterinary staff

Vaccination (score 36)

- research to develop a heat-stable CSF vaccine
- simple test to check vaccine immunogenicity
- simple test to check post-vaccine immunity
- improved vaccine program (production, delivery and timing)
- encouragement for vaccination (with high-quality vaccine).

Emerging from this question, the most important issues were vaccination, disease awareness for farmers and advisers, and an obvious shortage of veterinary personnel in Lao PDR.

The next question was aimed at addressing these three key points by asking:

What do we do next to:

- a) improve CSF vaccine quality? Group 1
- b) increase the capacity for vaccination? Group 2
- c) increase incentives to vaccinate and promote awareness? Group 3
- d) train more veterinary staff? Group 4
- e) develop greater disease awareness for farmers and advisers? Group 5

The outcomes from this session are summarised below:

a) Improve CSF vaccine quality

- Improvements are needed in quality control at the vaccine production laboratory.
- Testing is needed post vaccination to ensure livestock are protected.
- Improvements need to be made to control the cold chain.

b) Increase the capacity for vaccination

- Ensure enough vaccine is produced to meet demand.
- Ensure enough trained staff are available to supply and administer vaccine.

c) Increase incentives to vaccinate and promote awareness

- Make the vaccine free.
- Raise awareness of the benefits of vaccination among farmers and allied veterinary staff.
- Develop effective advertising to coincide with public awareness.

d) Train more veterinary staff

- Long-term vision is required to correct the human resource deficiency that now exists.
- Short-term specialist training is needed for existing veterinarians and technicians at the district level.
- Encourage and lobby regional governments to provide university places for Lao veterinary students.
- Create university places in regional universities for Lao students.
- Make the options donor friendly—veterinary degrees require a 5–6-year investment, which in many cases is beyond the time frame of a project.
- Develop, in conjunction with universities and international governments, scholarships for Lao students at regional and Australian and New Zealand universities.
- Establish joint funding agreements between Lao and regional governments.
- Encourage donor support.
- Establish postgraduate training for Lao students with a Bachelor of Science degree to upgrade to a Master of Veterinary Science or Master of Science. This is more likely to be a donor friendly option as it will require only a 1–2-year investment; however, there will still be a shortage of trained veterinarians.

e) Develop greater disease awareness for farmers and advisers

- Target farmer groups, exchange information and determine the factors that influence farmers' decision making.
- Assist district and provincial agricultural officers to understand improved techniques of communication.
- Produce effective materials adapted for all people in a range of languages, including all media types (e.g. oral, written, pictorial).
- Improve and extend the university curriculum to include communication skills to upgrade the communication capacity of district and provincial staff.
- Create a suite of education materials and media/ education kits directed specifically at farmers, traders and district agricultural extension officers.
- Use 'mentors' at provincial and district levels to facilitate the dissemination of skills and information.

Conclusions

The facilitated session was able to identify three important areas to focus on in the future for CSF and FMD research. Vaccination was seen as a very important issue for the sustainable prevention of disease, and further research and development will be required to ensure the delivery and use of a quality

vaccine. The human resource deficiency in the veterinary field was highlighted but it was noted that this will be difficult to correct; making options 'donor friendly' will be important. The final key issue highlighted during this session was that of public awareness. For disease control measures to be successful, greater disease awareness at farmer and district levels will be required.