ASSSESSMENT OF THE FINANCIAL IMPACT OF FMD ON SMALLHOLDER CATTLE FARMERS IN SOUTHERN CAMBODIA

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Introduction
- Smallholder farmers own approximately 90% of cattle in Cambodia
- FMD vaccination rates are low, estimated at 2.7% in 2010
- The impact of FMD is often underestimated, and there is a lack of data on the financial impact of FMD on smallholder farmers in Cambodia that could be used to support more rigorous disease prevention programmes
- This research was conducted as part of the ‘Best practice health and husbandry of cattle, Cambodia’ project, a collaboration between the University of Sydney, Australia, and the Department of Animal Health and Production, Cambodia

Materials and methods
- Project staff conducted a financial impact survey questionnaire (FISQ) in September 2010 interviewing 62 farmers (collectively owning 320 cattle) from four villages, two in Kandal Province, and two in Kampong Cham Province
- Each farmer owned cattle clinically affected by FMD during the 2010 epizootic
- Farmers were asked to provide details on pre-FMD and post-FMD estimated weights, values, and costs associated with treatment, management, and rental replacement costs for draught if required
- A partial budget using the FISQ results was constructed to assess the net benefit/cost for biannual FMD vaccine used by smallholder farmers

Results
- The mean estimated value of cattle pre-FMD was USD$ 404.19
- The mean post-FMD total loss varied from USD$ 216.32 (a 54% reduction from the pre-FMD value) due to weight loss and treatment costs, to USD$ 370.54 (a 92% reduction from the pre-FMD value) if the animal was treated or died and a rental draft replacement was required
- See the FMD flow diagram to the right
- Partial budget analysis identified a strongly positive incentive for cattle to be vaccinated biannually for FMD, providing USD$ 31.48 per animal, using a predicted village annual incidence of 0.2, and a biannual FMD vaccine cost of USD$ 2.44

Discussion
- The financial impact of an outbreak of FMD in 2010 on smallholder cattle farms determined that losses associated with FMD infection were severe
- There is a strong financial incentive for farmers to vaccinate cattle against FMD
- It is considered important that farmer education strategies aimed at improving cattle productivity, also include both access to vaccine and knowledge of preventative disease risk management and biosecurity practices in Cambodia

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