



Royal Veterinary
College



A project proposal by FAO, Royal Veterinary College and the Rural Development Research Consortium

Executive Summary

Highly pathogenic avian influenza (HPAI) associated with the H5N1 virus strain first occurred in Vietnam and Thailand in late 2003, causing severe mortality in affected flocks. The disease has recurred in 2004 and 2005, and is now considered endemic to the region. Given that the virus has crossed the species barrier between poultry and humans and caused human fatalities, concerted efforts are being mustered by national governments and international agencies to control the spread of the disease through a variety of measures, which may also include the need for a 'restructuring' of the poultry industry eliminating smallholder backyard producers.

Devising evidence-based responses to animal and human health risks that balance the interests of a wide variety of national and international stakeholders requires thorough analysis of epidemiological and economic information (past and present), development of scenarios of disease spread, their likelihood of occurrence, the identification of critical control points and interventions, the costs and impacts of the latter, and, finally, negotiation between stakeholders at different levels, ranging from local, through national to international. Appropriate social investments to reduce health risk locally and nationally can have the very significant dividend of improving small holder commercial viability, a pro-poor benefit that stands in sharp contrast to the displacement effects many of the proposed control strategies threaten to cause.

The proposal outlines a systematic approach that combines rigorous epidemiological and economic analysis with risk management, an approach in the following referred to as *Strategic Pathogen Assessment for Domesticated Animals (SPADA)*. The epidemiological component will focus on development of stochastic simulation models of disease transmission to identify control policies that might be beneficial in the reduction of the transmissibility of HPAI at the local, sub-national and national level. The results of these models will be used as inputs into the economic component, which is designed to assess the ramifications of the disease impacts beyond the animal production systems themselves. The risk management component involves localized design of monitoring, incentive, and penalty mechanisms for disease reporting combined with traceability schemes, the aim of which is to limit downstream disease risks and improve upstream product quality characteristics.

To develop and apply the above approach, a three-year project of collaborative research and policy support is proposed, built around a consortium of internationally renowned research institutions partnering with local counterparts from HPAI affected countries of the Mekong region (Thailand, Viet Nam, Cambodia and Lao PDR).

The proposed project combines research with policy influence, risk communication and capacity building. Initially, the project intends to focus on taking forward relevant on-going activities in Thailand and Viet Nam, the two countries most severely affected by HPAI in the region, and to subsequently expand activities into Cambodia and Lao PDR.

The overall cost of the proposed project is estimated at around USD1.8 million for the four countries. For further information please contact Joachim.Otte@fao.org.