Controlling Avian Flu and Protecting People’s Livelihoods in the Mekong Region

DFID-Funded Collaborative HPAI Research Project for Asia and Africa

J. Otte, DU Pfeiffer and D. Roland-Holst

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Overview

- Background & Motivation
- Project Goal & Objectives
- International Partners & Focal Points
- Main Issues (Research & Non-Research)
- Principles
HPAI Threats

- Poor peoples’ livelihoods
  - disease itself
  - control measures
- Poultry industry
  - in affected countries
  - in non-affected countries
- Global public health
  - rural populations
  - urban populations
Economic Impact of Selected Diseases

- **Avian Flu, EU**: $500m
- **BSE, UK**: $10-13bn
- **Foot & Mouth, Taiwan**: $5-8bn
- **Foot & Mouth, UK**: $30bn
- **Swine Flu, Netherlands**: $2.3bn
- **BSE, Canada**: $1.5bn
- **Nipah, Malaysia**: $350-400m
- **BSE, Japan**: 1.5bn
- **BSE, US**: $3.5bn
- **Lyme disease, US**: $2.5bn
- **Nipah, Malaysia**: $350-400m
- **Avian Flu, EU**: $500m
- **SARS**: China, Hong Kong, Singapore, Canada,… $50bn+

*Adapted from: Bio-Era. Courtesy of Dr. Will Hueston, Center for Animal Health and Food Safety, UM*
Motivation

• Approach taken to control HPAI:
  – top-down / command & control
  – almost exclusively technical orientation
  – short on institutional analysis
  – no use of market-based instruments
  – anti smallholder bias!!

• More of the ‘same’
  – laboratory networks
  – disease ‘intelligence & control centres’
Research Issues & Gaps

- Viral genomics – virus evolution
- Pathogenesis – in humans and poultry
- Immunology – vaccine development
- Disease ecology & epidemiology
- Differential impacts of disease and disease control
- Cost-effectiveness / cost-benefit of control
- Institutional angles of HPAI control
- Externalities / ‘global public goods’ aspects of HPAI control
Project Goal

Safe smallholder poultry enterprises and poultry markets in regions affected or at risk of HPAI while minimizing the potential spread of HPAI to humans
Project Objectives

1. Provide scientific basis for
   - cost-effective, and
   - ‘socially just’
   HPAI control strategies,

2. ‘Inject’ insights into
   - national,
   - regional and global
   policy processes, and

3. Build capacity for evidence-based formulation of disease control policy
International Partner Institutions

International Food Policy Research Institute
Clare Narrod, Devesh Roy

International Livestock Research Institute
Jeff Mariner, Karl Rich

Royal Veterinary College, University of London
Dirk Pfeiffer

RDRC, Berkeley University, California
David Roland-Holst, David Zilberman

Food & Agriculture Organisation, Rome
Joachim Otte, Anni McLeod
Regional / Country ‘Responsibility’

Indonesia, Ethiopia, Kenya, Nigeria & Ghana / Burkina F.

The Mekong Region: Thailand, Cambodia, Vietnam (Lao PDR)
Research Domains

- Effectiveness of control measures
- Economic impacts of control measures
- Incentives for (non-)compliance
Effectiveness of Control Measures

- Vaccination (vaccine? species? bird type? timing?....)
- Culling (radius? timing? tracing?....)
- Surveillance (sensitivity? specificity?....)
Economic Impact of HPAI & Control

**Scale**
- Within-household
- Poultry sectors and supply chain agents
- National economy (spillover to / compensatory gains by other sectors)
- International / global

**Time Frame**
- Short-term / immediate
- Long term impacts
Incentives for Compliance

Sterile provinces

North

South

Source: Pfeiffer et al., 2005
‘Non-Research’ Domains

- Policy makers / advisors
- Communication
- Capacity building
- Research community & direct associates
- Field data collectors & data analysts

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Project ‘Principles’

- transparent, disclosure of interim findings
- collaborative & trans-disciplinary
- iterative, ongoing adjustments
- constructive peer review
- end-user focused
- open to partnerships
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http://www.hpai-research.net