



Royal Veterinary
College



**DFID-Funded Collaborative HPAI Research Project for
Asia and Africa:**

**RESEARCH DIRECTED AT
UNDERSTANDING ECONOMIC and
LIVELIHOOD CONSEQUENCES OF
HPAI
ON THE POOR**

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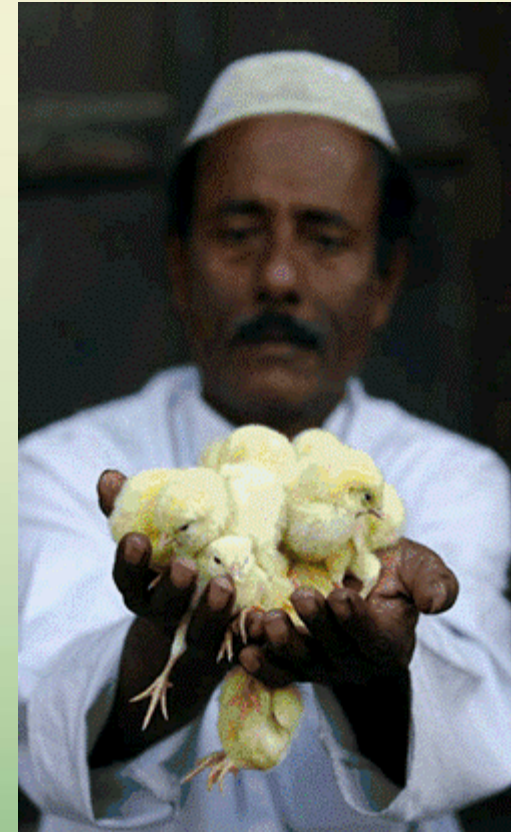
On behalf of the team

Rationale

- **For the most part, control efforts have focused on implementing prevention and eradication measures in poultry populations.**
- **Less emphasis on understanding the socio-economic consequences of HPAI and risk mitigation strategies on the livelihoods of smallholders.**
- **Livelihood impacts assessment critical for engendering and mainstreaming a pro-poor focus in policies**
 - **Actions involve direct costs associated with the eradication effort, as well as indirect costs that accrue to poultry producers (several examples highlight this)**
 - **Mitigating the adverse effects on livelihoods crucial for effectiveness and sustainability of control strategies**

Success of actions may depend on how well costs are taken into account

- **The rural poor, whose livelihoods depend in large part from poultry, may disproportionately feel these costs and may lack the incentive to comply**
 - **To get the poor to comply with control measures governments need to take into consideration both economic and livelihood impacts when identifying effective control measures/scenarios**
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Success of risk mitigation practices may depend on how well actions reach the poor

- Zoonotic diseases pose a challenge to the global public health system.
 - First lines of defense is having a monitoring and surveillance program set up to allow for early detection.
 - For the poultry industry in many countries the responsibility for monitoring and controlling for poultry diseases is a shared responsibility of the public and private sector.
 - In large integrated operations in-house veterinarians closely monitor the disease situation of their contract growers and report problems to the public sectors.
 - Producers outside this system, such as the poor often need to rely on public sector extensionists and veterinarians, private input providers, or some other institutional mechanism (covered is often limited by resource constraints).

Main objectives under consequence analyses

Economic impacts

- Direct and indirect economic impacts of HPAI on production, consumption, living standards, employment, and trade.

Impact on livelihoods and nutrition of the poor

- Direct and indirect livelihood impacts intra-household dynamics, income and household level food security, nutrition of the poor, and vulnerable segments.



Main objectives under consequence analyses (cont.)

Impact of HPAI on institutions

- Assess the epidemiological impact of HPAI risk mitigation practices to date and to identify political, market, and institutional failures preventing implementation and adoption of cost-effective HPAI risk reduction strategies.



Economic consequences: potential questions of interest to decision makers

- What have been the static and dynamic economic impacts of HPAI at different levels of economic activity: aggregate, regional, sub-regional, sectoral, intersectoral, and household?
- What have been the impacts of HPAI on different size producers? In particular, what was the significance of sectoral and spatial heterogeneity?
- What are the economic linkage effects of HPAI, across domestic stakeholder groups, regionally, and internationally?
- Have the control options implemented adequately addressed the economic and livelihood consequences? If not has that affected their effectiveness i.e. adoption?

Decisions regarding scope of economic analyses

- Simple partial equilibrium model or a more general equilibrium framework
 - Based on the size of the poultry sector and the extent of its inter-linkages
 - Countries/regions with available recent Social Accounting Matrix (SAM) and necessary data possible to use a computable general equilibrium (CGE) model
- Based on the spatial characteristics of the spread choice being captured in the spatial spread model.
- How to translate the research into readily usable results for the decision makers?

Approaches for looking at economic impacts

Three analytical components will be common to each country:

- 1) Initial macro-economic conditions and the role of poultry sector in the country
- 2) Initial micro-economic conditions focusing on
 - Poultry production systems across countries.
 - Consumer preferences and demand elasticities for poultry and poultry products.
- 3) Spatial patterns of poultry production and consumption

Proposed outputs from economic consequences analyses

- Country level HPAI economic memoranda.
- Dedicated individual country research reports, addressing the economic dimensions of HPAI in livestock production and marketing.
- Where appropriate, multi-country synthesis reports and policy briefs.

Livelihoods impacts: potential questions of interest to decision makers

- Which populations are likely to be most vulnerable to HPAI impacts on livelihoods, food and nutrition security (i.e., rural poor, women, children)?
- What are the consequences of HPAI and its control on the livelihoods, food and nutrition security of vulnerable individuals and groups in different regions?
- How do these distributional differences in impact vary with time, and by distance of the disease spread?
- What are the gender and intra-household equity dimensions of these consequences?
- What kind of policy options can be relevant for mitigating adverse impact on livelihoods (compensation, restocking loans)

Decisions regarding scope of livelihood analysis

- Assessing the livelihoods impact of HPAI/ decisions need to be made on nature of impacts to be considered
 - What will be looked at: income, nutrition, food security, etc (based on suitability of the method to meet the needs of the decision makers, resource requirements, data, and time as well as what has already been done)
 - Ex ante versus ex post (questions change depending on country situation)
- Develop a conceptual model of HPAI gender, livelihoods, nutrition and food security impacts particularly on the poor (the DFID Sustainable Livelihoods model)?
- More detailed HH surveys to collect quantitative and qualitative data on poor HH

HH surveys could try to understand:

- Importance of poultry in the livelihoods and consumption of rural households
- Importance of poultry in the food security and nutrition of these households, with particular emphasis on women and children
- How HH are linked to poultry markets and various types of exchanges
- Anthropometric measures on HH health and hygiene status, and food (especially poultry) preparation and storage practices
- Knowledge, attitude, perceptions and behavior with regards to HPAI, other poultry and livestock diseases (KAP Surveys)

Proposed outputs from livelihood analyses

- A review paper on existing knowledge of the impact of HPAI on livelihoods, food and nutrition security, and how HPAI control measures effects intra household dynamics, food security and nutrition of different household members, and knowledge gaps.
- Individual country research reports evaluating the livelihood, food security and nutritional impacts of HPAI outbreaks and control measures on small-scale commercial and backyard poultry producers in the study countries based on comprehensive household livelihoods surveys, qualitative and quantitative research analyses.
- A livelihoods framework which ensures that a gender-sensitive, equity-based, poverty-focused livelihoods lens is incorporated in all the research modules.

Impact of HPAI on institutions: potential questions of interest to decision makers

- What are market interactions and linkages that transmit economic and public health effects across poultry markets?
- What are the national disease control programs? How are the spatial and temporal patterns in implementation related to disease patterns and incidence?
- How effective were the interventions?

Impact of HPAI on institutions: potential questions of interest to decision makers

- What are the market failures? What are the alternative mechanisms that can address these failures given existing institutional set up?
- What are the roles of public and private institutions in HPAI control efforts? How effective are they?
- What are the costs and risk reduction effects of various policies, reforms and institutional changes?

Decisions regarding scope of impact of HPAI on institutions analyses

- Proposed that the epidemiological assessment of the impact of disease mitigation activities include
 - Documentation of the temporal and spatial patterns of application of interventions.
 - Collection of data on the temporal and spatial trends in disease incidence and stakeholder's perception of the impact of interventions.
 - Review of institutional frameworks in regard to how institutions affect the implementation of mitigation strategies.
- Proposed that effort to identify the roles of public and private institutions in controlling HPAI include
 - Lists of institutions and their respective roles when there is a disease outbreak - How far should the analysis go
 - Government and private institutions' responses such as social and welfare programs, awareness campaigns and preparedness activities
 - Existing laws and regulations, and enforcement strategies.

Proposed approaches

- Participatory rapid appraisals and focus group discussions
 - To understand the roles and views of the different actors along the poultry supply chain.
 - To relate what is happening along the supply chain to risk generation and productivity, describing how supply chain characteristics affect risk generation or how this affects productivity.
- Discussions with the key stakeholders to carry an institutional analysis
 - To identify market failures and other barriers that prevent poor smallholders, women producers, and other actors from effectively controlling HPAI.
 - To identify existing public-private partnerships and other institutional arrangements that help facilitate disease mitigation efforts.

Proposed outputs

- Understanding of the market interactions and linkages that transmit economic and public health effects across poultry markets.
- Detailed assessments of national disease control programs that relate spatial and temporal patterns in implementation to disease patterns and incidence.
- Refined estimates of infectious disease modelling parameters on the efficacy of interventions.
- An institutional analysis of the role of public and private institutions in HPAI control effort in study countries and their effectiveness.
- Detailed reports for all countries.

Summary

- Number of questions and methods posed to look at economic and livelihood impacts in the proposed project
- Insight can be gained from other analyses
- Should we rethink any of the questions and methods posed in the project document regarding the consequences analysis to get pro-poor outcomes given the findings in these studies?
- Produce research outputs in forms readily usable by stakeholders and decision makers to promote policy action.

