

*Lessons learned from HPAI research activities
conducted by ILRI and partners*

**Lessons drawn from studies in Africa, Mekong Region and
Indonesia**



ILRI

International Livestock Research Institute

A. Omore, B. Bett and T. Randolph, A.Fall



Lessons learned from research activities

- Funded by: DFID
- Implemented by
 - ILRI
 - FAO
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Lessons learned

- Disease risk findings
- Main findings –livelihoods,
- Policy implications-livelihoods
- Institutional Mechanisms: Alignment of poultry sector actors with control measures
- Policy implications- Institutions, Mitigation; and Risk Management Options



Disease risk findings

- Estimate of level of actual risk of transmission through any pathway is uncertain in Africa (lack of data)
- Risk of transmission is increased when a disease outbreak occurs
Farmers fear the effects of disease controls on their livelihoods
- Risk of transmission should not only look at biosecurity at farm level but also at the number of potential contact points for infected materials
- Risk of indirect transmission via infected materials is highest where multiple visitors visiting multiple farms –transporters, traders, veterinarians, surveillance officers, etc.



Main findings -livelihoods

- **Consumer panic** foremost factor in the reduction of poultry production;
- Most small-scale poultry producers tend to have **diversified income** portfolios and thus unlikely to be significantly affected by HPAI shocks
- **Under the assumption of no animal source food substitute**, reduced poultry consumption from a simulated sustained **HPAI shock=> could have significant detrimental impacts on child nutrition.**

Policy implications-livelihoods

- Education and awareness campaigns will be crucial at limiting the reaction of consumers due to perceived risks;
- If outbreak occurs, there has to be contingency plans for livelihood strategies esp. targeted to small-scale producers –not necessarily restocking
- Prioritize the intervention in areas where there is congruence between disease risk and livelihood risk hotspots
- Government assistance to be provided to small-scale poultry producers for implementing bio-secure management options;
- If sustained **HPAI shock** Governments may want to target nutritional support programs for children of 1-3 years old

Institutional Mechanisms: Alignment of poultry sector actors with control measures

Regardless of epidemiological status

- Improved biosecurity is expected to have the most compliance across poultry value chains actors
- In all the countries except Ghana, culling and compensation was the least accepted by value chain actors

Regardless of epidemiological status mitigation agents ability to implement control measures varied

- Highest alignment score to reporting and the least score to biosecurity in Indonesia and Kenya
- Highest score to culling and compensation (Ghana and Ethiopia); opposite result than value chain actors
- Highest score to movement control (in Nigeria)

Main findings and policy implications-institutions and mitigation

- Improve the capacity to implement biosecurity
 - public awareness campaigns, focused training, promoting access to micro-credit services (not widely used in some study countries), implementing community-led initiatives
- Improve responsiveness from mitigation agents and build trust with the community
- Design movement controls such that transport of chickens and its products are allowed under certain conditions to avoid unreasonable or catastrophic losses
- Provide adequate compensation in cash or in-kind (e.g. free provision of feed to movement-restricted farms and businesses)

Main Findings and Policy Implications-Evaluation of Risk Management Options

- **In endemic/ high risk areas**, producers had high level of HPAI awareness, **BUT** they actually had limited actual knowledge of HPAI symptoms, and variable knowledge of transmission, preventive measures, and disposal of dead birds => **education campaigns** need to be targeted to delivering these messages in effective ways;
- **Regardless of disease status** , number of socio-economic factor affecting knowledge of HPAI symptoms => **Education campaigns targeted to households that have lower levels of education, income, and past knowledge of symptoms of poultry diseases** will be imperative for effective control programs;

Evaluation Risk Management options

- **We know=>** HH implementing a larger number of biosecurity measures **have more WTP** for additional control methods.
- **It is important** to increase **education on knowledge of ways the disease is transmitted** in order to increase Household WTP for low cost control measures
- **TV was a positive way to increase peoples knowledge on** how to control for HPAI in countries that experienced HPAI

Risk management –bioeconomic simulation model

Optimal culling

–**Endemic**: Optimal culling radius is considerably greater in more susceptible areas, i.e. areas in which outbreaks occur more frequently and spread more quickly

–**No previous outbreaks** : Aggressive culling response needed but no more than half of the potentially infected area

Bioeconomic simulation model (cont.)

Cost-sharing and adoption of biosecurity measures (regardless of disease status)

- Cost-share subsidies** for adoption need to be similar across less and more susceptible areas
- Per bird subsidies** need to be greater for households with fewer birds, but there is little variation in per bird subsidies needed based on the size of the flock among producers of Sectors 3 & 4
- Greatest share of expenditures** on biosecurity measures should be allocated **to cages and netting**



Highlights of **TAP - IV RA4 (2)** - Establishing a learning system to capture and enhance knowledge on pitfalls and best practices in controlling outbreaks of emerging diseases affecting livestock in the case of HPAI.

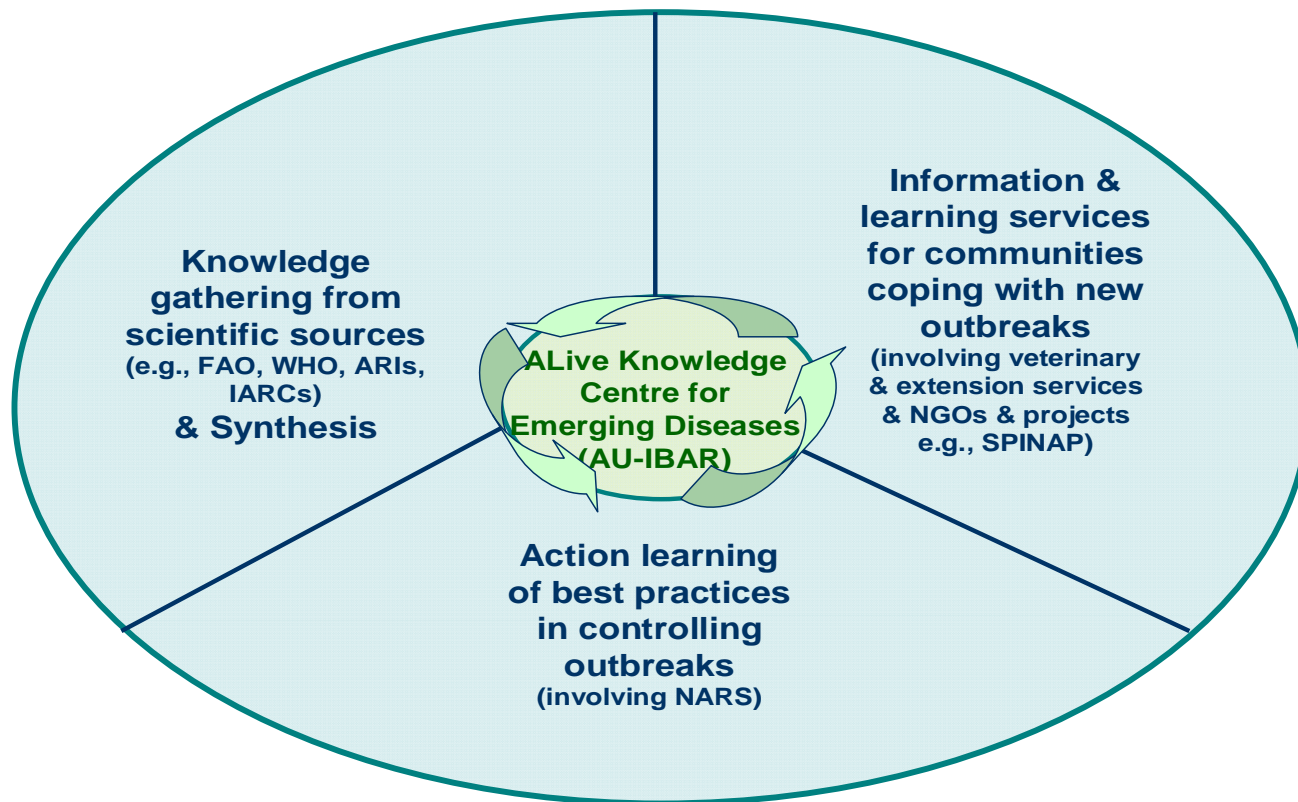
Issues being addressed:

- African countries are not adequately prepared to contain losses due to HPAI and reduce the risk of human HPAI pandemic (likewise future emergency diseases)
- Conventional response strategies ineffective or inefficient in African contexts, and may adversely affect livelihoods
- There is lack of learning system to learn from experiences from outbreaks in Africa and distilling the best practices for appropriate response.
- There is no central authoritative source of knowledge for those having to cope with unpredictable new outbreaks



Highlights of **TAP - IV RA4 (2)** - Establishing a learning system to capture and enhance knowledge in the case of HPAI

Main Component Activities and Linkages





Highlights of **TAP - IV RA4 (2)** - Establishing a learning system to capture and enhance knowledge in the case of HPAI

Expected outcome:

- A learning and information dissemination system in regular use by decision makers, technicians, farmers and traders to preventing and controlling disease outbreaks (HPAI and similar diseases in the future)