

Pro-Poor Highly Pathogenic Avian Influenza (HPAI) Risk Reduction Strategies in Africa and Asia

Stakeholder Workshop and Researcher Meeting

5th – 6th (half day) of June (stakeholder workshop) and 6th (half day) and 7th of June (researcher meeting)

> Gadjah Mada University (UGM) Faculty for Veterinary Medicine Yogyakarta, Indonesia



Introduction and objectives

The organized meetings were related to the DFID (Department for International Development of the United Kingdom) funded project "Collaborative and multi-disciplinary research project to identify and promote pro-poor Highly Pathogenic Avian Influenza (HPAI) risk reduction strategies in Africa and Asia".

The project is implemented in several countries of Africa and Asia in a collaborative and multi-disciplinary approach by the International Food Policy Research Institute (IFPRI), International Livestock Research Institute (ILRI), Food and Agricultural Organization (FAO), Royal Veterinary College, and University of California at Berkeley and national partners. The goal is to assist African and Asian governments and international organizations in making decisions to limit the spread of HPAI, while minimizing the impact thereof on different socio-economic groups, particularly the backyard holders. For Indonesia the project is implemented by ILRI and IFPRI in closed collaboration with national partners.

Preliminary project activities have been already carried out in Indonesia. This included the development of a background papers on HPAI by 2 national scientists. A draft was provided 2^{nd} of June.

The meeting consists of two different sections (a) stakeholder workshop $(5^{th} - 6^{th})$, half day, of June) followed by a specific researcher meeting 6^{th} (half day) and 7^{th} of June.

The objectives of the 1.5 day stakeholder workshop were:

- To sensitize the potential partners for the project
- To discuss the background paper and key findings
- To discus and identify general research topics in the line with overall objectives
- To identify potential national collaborators

The workshop was followed by a 1.5 day researcher meeting with the objective to discuss potential activities and methods used.

Participating stakeholders and institutions

<u>Workshop organizers</u>: ILRI and the Campaign Management Unit (CMU), Jakarta kindly supported by the Faculty of Veterinary Medicine, UGM, Yogyakarta.

A detailed list of workshop participants is attached to the annex. Twenty-one participants joined the workshop. They represented the following institutions and organizations.

- Campaign Management Unit, CMU, MoA, Jakarta (2)
- Faculty of Veterinary Medicine, UGM, Yogyakarta (4)
- BBVET, Disease Investigation Centre, Wates (3)
- University of Bogor, InterCAFE (International Centre for applied Finance and economist), Bogor (3)
- University of Jakarta (1)
- FAO, Jakarta (1)
- IFPRI (2)
- ILRI (5)

The follow up research meeting was participated from researchers of the Faculty of Veterinary Medicine (UGM), BBVET (Wates), University of Bogor (InterCAFE), University of Jakarta, IFPRI and ILRI.

Workshop summary

The workshop was opened by CMU officials followed by a short speech of the Dean of the Veterinary Faculty of UGM, Prof. Charles Rangga Tabbu. Then the assigned country coordinator for Indonesia, Fred Unger (ILRI), introduced the agenda and the objectives of the meeting. This was followed by a detailed presentation of the project background and the current status of the project provided by Jeff Mariner (ILRI).

Later on the prepared background paper was presented by the consultants Bustanul Arifin (economic section) and Bambang Sumiarto (epidemiological section). After lunch the paper findings were discussed thoroughly by workshop participants in group discussions. Special emphasis was given to identified research gaps and needs.

The first day contains also some stakeholder and researcher presentations on the following topics:

- National Strategic Plan for AI and AI situation, CMU, Elly Sawitri
- Research on value chains, FAO, Jonathan Gilman
- First results of sero-surveillance in smallholder duck farm in selected regions of Indonesia and Vietnam, Joerg Henning, ACIAR

The background paper findings and results of stakeholder/researcher presentations were the basis for afternoon discussions until closing using working groups. The main topic of the discussion was to get feedback of participants on the background paper and in particular on the presented research gaps. Using a scoring system all identified research gaps were ranked by participants according to their importance. Previous to the scoring all mentioned gaps were classified in five main categories: economics, productions system, risk factors, epidemiology, mechanism/incentives and institutions. The research gaps and needs, the overall categories and their ranking result are attached to the annex. The three highest ranked research gaps were:

- Handling of HPAI outbreaks (category mechanism and incentives)
- Effectiveness of control measures (category epidemiology)
- Impacts on various stakeholders of HPAI outbreaks (e.g. smallholders, commercial, consumers, etc.)

The second day of the workshops was used to introduce a net map tool. This tool, a participatory social analysis network tool, was presented to participants by Marites Tiongco (IFPRI) in form of a net mapping exercise.

The idea is to use the tool within the context of HPAI management in the country. The presentation resulted in stimulating discussions among workshop participants. It helped the participants understand and visualize the many different actors involved in the poultry sector, how these actors are linked to each other, and identify actors/institutions that are most influential in formulating HPAI control strategies. The net-map showed that there were some hierarchical structures among the different institutions involved but it turned out that DGLS is the most influential institution. It plays a very crucial role in the formulation of HPAI control measures.

The most common link between and among actors was "information and advise linkages" from local government and private institutions. The linkage between donors/international organizations and the Ministry of Agriculture was "financial help and support" for the national government's efforts to control HPAI. Information from small farms can be channelled to the Ministry through dissemination of findings from projects funded by donors and international organizations. The link between universities/research institutions and the national government is through provision of information and advice based on studies and analysis done by researchers.

The net map also confirmed that the local government is the most powerful and influential in terms of formulation and implementation of HPAI control measures. There was a general consensus between all stakeholders and national institutions about their interest in joining the presented project and as well as on the identified research priorities.

Researcher meeting

For the researcher sessions small working groups were formed. The following main research directions were discussed in detail:

- a) Mitigations strategies and institutions (Friday afternoon)
 - Consensus between researchers that this topic is very much in line with the identified gaps (see Annex)
 - A short overview on potential research activities and approaches was presented by Jeff Mariner.
 - Group exercises were conducted to identify the principal interests of stakeholders on mitigations and institutions. These included:
 - Sustainability
 - Effectiveness of control measures
 - o Effectiveness of vaccination
 - o Role of zoning and compartmentalization
 - Decentralization
 - o Incentives
 - o Decision-making processes
 - Restructuring efforts
 - Key informant groups were identified as:
 - o Industry
 - Commercial producers
 - o Epidemiologist, vets, field staff
 - Central, provincial and local authorities
 - Non-veterinarians in Dinas
 - o Traders,
 - o DVS, DGLS and Minister
 - Criteria for identification of ground truthing sites were identified as:
 - o Logistics
 - Local partners
 - o Number of cases
 - Interventions practiced
 - Human and poultry population
 - A short introduction to the experimental economics activity was given. The feedback from the CMU was that research that actually implemented activities in an action research approach were preferred over studies. It was suggested that one day market

closures be tested as a way to break the virus transmission cycle in markets. The approach would be to measure both economic and epidemiological impacts of market closure in a case-control approach.

- b) Risk assessment (RA) (Saturday morning)
- ILRI will lead the development of epidemiology model of AI spreading. Local expertise and knowledge is important.
- Integration of risk assessment and economic analysis of HPAI. There is research gap in this area. ILRI and IFPRI team will collaborate on that with national partners.
- Timeline for Indonesia risk pathways workshop: Week of 27th Oct (note Ramadan in September).

Potential areas for analysis:

- Central Java (set of endemic/free areas)
- Yogyakarta (high no. of HPAI cases in poultry and strong logistics) Further regions mentioned were:
 - West Java: Banten province (human cases), Bogor (high number of HPAI in poultry) but also some free cases
 - Jakarta: existing study (UGM) + restructuring
 - o East Java-Madua Island

Parameters for analysis:

- broad-level qualitative analysis, risk maps at national/island level
- detailed quantitative study in up to 2 sites (Jakarta/Yogyakarta)

Unresolved questions

- Standardized units for RA (House hold or village?)
- What sectors (3 and 4 or 1 and 2?)
- Level of analysis for risk maps (village/district): might be context-specific Further consultations with RVC but also on national basis with FAO/CMU are required.

Timelines:		
Activity	Dates	Who
1. Risk maps (secondary	By end-Oct 2008* (before	RVC
data)	workshop): who and where	Sua Nazara (economic aspects of
	to be determined.	risk maps)
		Bambang Sumiarto & Heru (UGM),
		Putut Pulmono (Wates)
2. Risk pathway	Workshop end-Oct*	Expert panel to be discussed with
		team + Dr. Elly (CMU) and others;
		located TBD
3. RA models, including	Apr 2009	Bambang Sumiarto
mathematical and disease		(student: Anwar Rashid)
spread		
	1. 1	

*Due to Ramadan earlier dates are not realistic

c) Market value chain

Focus: Value chain impacts of industry restructuring in Jakarta

Key points:

- Relocation aspects: what are the best locations, should this be adopted? Can we map current collection points with potential ones outside the city
- Cold chain and storage: what issues need to be addressed here, given that slaughter would be banned from Jakarta?
- Are there particular points in which slaughtering could be done to replace existing areas? What are current locations and volumes?
- What guidelines should be adopted?
- What are critical points in the chain?
- Can we consider adjustment packages that are feasible, low-cost, and pro-poor? What *scenarios* could be considered that minimize the livelihoods dislocation and also are cost-effective from the standpoint of government?

Further remarks:

- A final draft of the background paper should to be provided to IFPRI until 19th of June 2008
- Next visit by ILRI/IFPRI researchers is scheduled for the second week of July

Next steps:

- On Saturday morning a very valuable visit of a live bird market (Yogyakarta) and one backyard farm (Sleman) was organised by local veterinary service for participants of the researcher meeting
- A CD containing copies of presentation can be provided on request

Acknowledgements:

The provided support at any time (previous and during the meeting) through CMU, UGM and local veterinary services is very much appreciated and acknowledged.

Annex

1. List of participants

Campaign Management Unit, CMU, MoA, Jakarta Elly Sawitry, Head of CMU, MoA, Jakarta Agus Wiyono, senior officer, CMU, MoA, Jakarta	ellysawitri@yahoo.com agusrini@indo.net.id
<u>Faculty of Veterinary Medicine, UGM</u> Charles Rangga Tabbu, Dean Bambang Sumiarto, Vice Dean, Epidemiologist, bac Setyawan Budiharta, Epidemiologist, previous Dean Widya Asmara, Microbiologist	pbb@ugm.ac.id
Wates, BBVET (Disease Investigation Center) Akhmad Junaidi Waluyo Budi Prijano, Director Putut Purnomo, senior researcher	bppv4@yahoo.com waluyopriyono@yahoo.co.id waluyopriyono@yahoo.co.id
Bogor, University of Bogor, InterCAFE (International Centereconomist)Arifin Bustanul, senior researcher, economist, background paper consultant Nunung Nuryartono, senior researcher, economist Dedi Budiman Hakim, senior researcher, economist	barifin@uwalumni.com nuryartono@yahoo.com
<u>University of Indonesia, Jakarta</u> Sua Nazara, senior researcher, economist	nazara@ldfeui.org
FAO, Jakarta Jonathan Gilman, economist	Jonathan.Gilman@fao.org
IFPRI, Washington Tiongco Marites, senior researcher Lang You, senior researcher	M.Tiongco@cgiar.org L.You@cgiar.org
ILRI, Nairobi, Jakarta and Bangkok Steve Staal, economist Jeff Mariner, veterinarian epidemiologist Karl Rich, economist Bernard Bett, field epidemiologist Fred Unger, veterinarian epidemiologist	S.Staal@cgiar.org J.Mariner@cgiar.org K.Rich@cgiar.org B.Bett@cgiar.org F.Unger@cgiar.org

Annex

2. Research priority scoring

Economics:	TOTAL
Effectiveness of control measures (also epidemiology issue)	2.21
Impacts on various stakeholders of HPAI outbreaks (e.g., smallholders, commercial, consumers, etc.)	2.69
Production systems:	
Definitions of sector 3	1.36
Definitions of "backyard"	1.21
Outbreak data for sectors 1 and 2	2.68
Risk factors:	
Field-level risks and evidence to quantify	2.43
Networks/chains of poultry: how spread disease?	2.56
Ducks as vector?	1.96
Mechanisms of bird-to-bird, bird-to-human spread	2.35
Illegal bird movements	2.25
Epidemiology:	
Effectiveness of vaccines (strategy and extent)	2.69
Effectiveness of control measures	2.93
Integrated molecular epidemiology studies	1.46
Zoning and compartmentalization	2.17
Mechanisms and incentives:	
Compliance behaviour and incentive structure for key stakeholders (knowledge	
of incentives)	2.47
Knowledge of handling outbreaks	2.93
Knowledge of needs of different stakeholders (farmers, vet services)	2.25
Why is compensation mechanism weak?	2.56
Levels of awareness on HPAI	2.01
Institutions:	
How to coordinate different committees and institutions	1.65
How to coordinate legislation (including at local levels)	1.44
How to implement SOPs (role of decentralization)	2.18
How to improve long-term planning measures (sustainability)	2.64
Coordination of and information on different research projects	2.22
Implement best bet options where knowledge is incomplete	2.26