



With the Collaboration of OIE/SEAFMD

Research Activities on Avian Influenza and Other Transboundary Animal Diseases in South-East Asia

21 to 22 January 2008, Bangkok, Thailand

Conclusions & Recommendations from the Working Groups

1. The meeting was timely and extremely useful to provide an overview, admittedly incomplete, of the plethora of valuable animal health research in Asia, ongoing and planned, and led by national and / or international research institutions. It was recognized and emphasized that beyond HPAI a wide array of animal diseases, such as FMD, CSF, emerging swine diseases (such as PRRS, Nipah, and ASF), PPR, vector-borne diseases (eg *T. evansi*, JE, BT (Indonesia)), and zoonotic diseases (parasitic diseases, rabies, brucellosis, bovine tuberculosis etc.) constitute increasingly important hazards to local, national and regional economies.
2. Although the meeting was understandably overshadowed by HPAI, many issues addressed in the large number of submitted abstracts / presentations are relevant to the management of HPAI and other livestock diseases of transboundary and zoonotic nature and there was a general consensus that much can be learned through comparison of different TADs and approaches to their control.
3. The working groups (see annex for thematic clusters) identified the rapid demographic changes in livestock populations, concomitant changes in husbandry practices, increasing transboundary movements within the region, increasing links with the global economy as well as climate change as major **disease risk generating factors** which will require enhanced national and regional response capacities. For example, ASF has been recorded in Asia for the first time ever in 2007 and regional risk assessments for selected diseases appear warranted.
4. With respect to **disease risk propagating factors** the working groups identified a number of knowledge gaps which urgently need to be addressed specifically for HPAI, but for other TADs as well. Fundamentally, these gaps relate to:

- (i) ecological features, such as pathogen persistence in different environments; host – environment interactions; and interactions between domestic and wild hosts; seasonal patterns of AI virus strains in wild and domestic poultry; and
- (ii) anthropogenic features such as interactions between various strata / systems of domestic livestock and poultry populations and the magnitude, direction and role of local, national and regional resource flows (livestock, livestock products but also inputs to livestock production) in disease spread and propagation.

5 Research felt to be required for improving **disease risk management** at various scales included:

- (i) disease surveillance, eg how to improve sensitivity and specificity of diagnostic procedures for emerging diseases; how to improve detection of asymptomatic HPAI infection in ducks; how to quickly detect the occurrence of new disease syndromes;
- (ii) the efficacy and transparency of disease reporting systems, e.g. the use of penalties vs. rewards, the role of loss aversion strategies by producers, and adverse incentives of current disease control strategies;
- (iii) for HPAI and other TADs the potential role of vaccination in disease control, e.g. vaccine efficacy, carrier state in vaccinated animals, achievable coverage, interference by other pathogens, and perception of vaccination by livestock owners;
- (iv) effective, appropriate and affordable biosecurity practices, particularly for ducks and ‘backyard’ chicken; and,
- (v) in the case of HPAI, the credibility of the public health threat in local communities and the impact of the latter on disease control and reporting.

6 Systematic and comparative reviews of research carried out on the above topics; retrospective analyses of available outbreak data, and the integration of research done in epidemiology, ecology, production systems, marketing etc were identified as important initial steps to develop a focused regional research agenda.

7 In order to improve **linkages between research and policy making**, the participants of working group 4 made the following recommendations:

- (i) to identify the structures and processes of policymaking country by country and in the region (eg avian influenza steering committees and their respective schedules);
- (ii) to involve policymakers in the research design phase (and thereafter) to ensure relevance of the research, particularly vis-à-vis potential operational constraints to implementation of recommendations, and to tap into their foresight of policy issues likely to arise;
- (iii) to be aware of the important role consumers have in shaping public and market responses to animal diseases and therefore include the consumer perspective in the research agenda;
- (iv) to include a policy-framing component in the research commissioned by international agencies;

- (v) to channel information generated by research to policymakers through 'credible' institutions, these often being international organizations, and renowned individuals;
- (vi) to provide information to policymakers in the language they understand (this involves translation of research, guidelines, codes standards etc from and into various languages, but also contextualization from one into another setting); and
- (vii) to review existing research and 'case studies' for possible policy conclusions and summarise these in short science-based policy briefs.

8 The working group also agreed that there was a need for better **linkages between researchers** in the region to foster cross-fertilization and avoid duplication. The following recommendations were formulated:

- (i) to create a database of ongoing and planned animal health related research in the region; and
- (ii) to establish a sustainable research(er) network that fosters electronic as well as face-to-face information exchange between national and international research teams.

All parties present at the workshop expressed their commitment to jointly take these recommendations forward. In consultation with other donors the DFID-funded HPAI research project endeavors to initiate early actions on recommendations (i) and (ii) under paragraph 8.

Annex: Working Group Themes

WG 1: Ecology and epidemiology of HPAI (biology of disease maintenance and spread)

WG 2: Ecology and epidemiology of other TADs (FMD, CSF, etc)

WG 3: Market chains and human activity-related disease spread, control options (and related institutional requirements) and economic and livelihood impacts of HPAI / TADs and HPAI / TADs control.

WG 4: Research coordination, research into policy, capacity building and communication