

**Avian Influenza and Wildlife
Regional Surveillance and Research Priorities for Asia
International Meeting - Bangkok, Thailand, 3-5 September 2007**

Executive Summary

Over the past four years, Food and Agriculture Organization (FAO) of the United Nations, World Health Organisation (WHO), World Organization for Animal Health (OIE), U. S. Department of Agriculture (USDA), United States Agency for International Development (USAID), Wildlife Conservation Society (WCS) and other related organizations have convened meetings on various aspects of Highly Pathogenic Avian Influenza (HPAI) surveillance and control.

The roles of wild birds in relation to HPAI H5N1 have been discussed at the FAO & OIE International Scientific Conference on Avian Influenza and Wild Birds (Rome, Italy 30-31 May 2006). Information on the discussed topics is available from the Journal of Wildlife Diseases (http://www.jwildlifedis.org/content/vol43/3_Supplement/index.dtl). One of the recommendations from that Conference recognised that there is a need for a long-term investment to better understand interactions between wildlife, livestock, and humans.

Recognising the importance of the Asian region for HPAI H5N1 and the impact the disease has had on poultry and wildlife, there have been many groups undertaking a range of work in understanding the issues and combating them, an international meeting "**Avian Influenza and Wildlife: Regional Surveillance and Research Priorities for Asia**" was organised at Siam City Hotel Bangkok, Thailand, between 3 and 5 September 2007. The meeting brought together 90 wildlife invited experts and organizations concerned with wildlife, conservation and disease control including government and donor agencies, university researchers and international associations from Asian countries (Bangladesh, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Mongolia, Myanmar, the Philippines, Thailand and Viet Nam) and international organizations and agencies to share and explore lessons learned from avian influenza (AI) and wild birds in Asia and help identify country and regional needs to better coordinate surveillance and research activities in the region. The meeting was jointly convened by FAO, USDA and WCS and was cosponsored by FAO, USDA, WCS and USAID. The Mahidol University, Thailand and the Department of National Parks, Wildlife and Plant Conservation, Ministry of Natural Resources and the Environment of Thailand provided great support in the organization of the meeting and field visits.

The objectives of the meeting were to: (a) bring together avian, wildlife, veterinary, and disease specialists to encourage coordination and collaboration in the region; (b) gain a better understanding of national needs, regional needs, and priorities; (c) to provide an opportunity for Asian countries to share their ongoing wildlife and avian influenza related activities; and (d) strengthen capacity and increase knowledge about avian influenza and wild birds.

Joint Convenors



Co-Sponsors



The main outcomes and recommendations of the meeting address regional and national priority needs:

A. Regional Recommendations

Capacity building

1. Strengthening capacity through implementation of regional training programmes is necessary to support field surveillance and response efforts concerning wild birds; the approach of training-of-trainers to increase capacity is a priority.
2. Regional training and manuals on bird handling capturing, data management and analysis, specialized techniques (e.g. telemetry, species identification, counting and monitoring techniques, hygiene) are required.
3. Regional laboratory training and diagnostic laboratory support for surveillance and testing of wild birds is needed.

Information sharing and communication

4. A regionally coordinated media strategy on AI and wildlife, regional information protocols (outbreak precautions & response) and awareness promotion is required.
5. Improved regional mechanisms for sharing of experience and best practices on AI surveillance and wild bird study and provision of accurate and timely information on AI and wild birds are needed.
6. Common approaches to biosecurity relative to wild birds, domestic poultry and the environment are required.
7. Efforts to improve awareness among national staff, particularly policy makers, about international bilateral and multilateral agreements and initiatives (e.g. Convention on Migratory Species, Ramsar Convention, Convention in Trade of Endangered Species, OIE, WHO, Global Avian Influenza Network for Surveillance – GAINS, East Asian-Australasian Flyway Site Network, Asian Partnership on Avian Influenza Research Programme, Scientific Task Force on Migratory Species and Avian Influenza, Asia Pacific Working Group on Migratory Waterbirds and Avian Influenza) and the value of these instruments/initiatives to support national efforts on wild bird research, conservation and management are required.

Data quality and information needs

8. Standardized protocols are needed to respond to investigations of morbidity and mortality in wild birds, as well as for wild birds in poultry outbreaks.
9. A regional reference centre for isolates for poultry and wild birds (a network of reference laboratories already exists but the available datasets for poultry are much larger than for wild birds) is required.

Research and cooperation

10. A **regional coordinating task force or group** should be established.

The task force would, in general, provide advice and direction on:

- research priorities for wild birds for the region;
- the design and conduct of rapid response, surveillance and monitoring programmes for wild birds and how these efforts could be integrated into ongoing work;
- resources (funds, equipment) for emergencies and wild bird die offs; and
- data sharing and information exchange on a regional scale (data and information on wild birds, materials, supplies and equipment, personnel and projects (past, ongoing and planned, and donors).

FAO, which had recently taken over as co-leader of the 'International Scientific Task Force on Avian Influenza and Wild Birds', has been suggested to be a potential leader of this regional task force.

11. Establishment of a multinational response team to investigate clusters of wild bird morbidity and mortality is needed. This should be supported by the development of a regional/global registry of wild bird specialists to be part of early response teams.
12. Enhanced cooperation in the study of long distance and short distance migratory birds that move across country borders as well as in disease surveillance and data sharing within region is required. There is scope within the Asian Partnership on Avian Influenza Research Programme for such work and for research on socio-economic aspects of AI outbreaks and studies on policy making.
13. Identification of priority species for surveillance, recommendations on types of surveillance, criteria for surveillance, increased effort of banding of wild birds, identification of priority sites for surveillance at flyway scale, expansion of the Asian Waterbird Census; regional updates for population estimates for waterbirds to enhance knowledge of wild birds and AI are a high priority. The role of the Asia-Pacific Working Group on Migratory Waterbirds and Avian Influenza in facilitating these activities is recognised.
14. Research and collaboration on cross border wildlife trade need to be developed to support improved understanding of the links between wildlife trade and spread of diseases.
15. Regional coordination for research on agriculture-wildlife interactions and their relation to AI are required; the value of developing regionally coordinated pilot projects is recognised.
16. Mechanisms to ensure timely issuing of permissions and agreements to transport wild bird samples for AI surveillance out of the country to regional laboratories for testing need to be established.

Planning and implementation

17. A regular regional meeting to share and exchange information, measure progress and plan future activities regarding wild bird issues will be valuable to organise.

B. National Recommendations

Country representatives recommended over 100 actions that have been grouped in the following categories: capacity building, research and cooperation, information sharing and communication, data quality and information needs, and strategic planning.

Capacity building

1. Acknowledging that illegal trade in wild birds is a recognized vector in the spread of H5N1 and other avian diseases, strengthening of national capacity for enforcement of existing legislation on legal and illegal wildlife trade is required with support from regional and global agencies.
2. Strengthening of national capacity for laboratory testing of wild bird samples is required and support being provided by regional and global agencies and donors to strengthen laboratory capacity for testing of domestic bird samples should be extended to cover wild birds.
3. The capacity of rapid response, monitoring and surveillance teams should be expanded to include trained wild bird specialists and ornithologists to address wild bird issues at farm outbreaks and wild bird die offs.
4. Additional resources are urgently required to train national field staff and wildlife specialists (including field biologists, wildlife veterinarians, ornithologists and wild bird specialists) to undertake wildlife disease surveillance and field monitoring. Topic areas mentioned included: trapping and handling techniques, species identification, sample collection, processing and marking, banding and morphometrics and field monitoring.
5. The need for training-of-trainers on wildlife disease surveillance and field monitoring techniques to increase capacity in the short term is a priority.

Research and cooperation

6. Improved cooperation between agencies, different sectors and multi-disciplinary teams is needed to ensure timely data sharing and information exchange.
7. Research to improve knowledge and information on wild bird populations, trade (legal and illegal) in wild birds, and interactions between wild birds and domestic poultry was required as a priority and needs to be strengthened.

Information sharing and communication

8. Development of coherent national strategies on communication of key messages about wild birds and HPAI is required. Adequate resources, knowledge and information to implement these strategies are also needed.
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10. Better sharing, exchange of data and communication of outcomes of ongoing research on migratory birds at the regional and global levels is required to improve outreach and public education campaigns to support efforts of agencies.

11. There is a need to raise public awareness and strengthen media relations to counter the increased threats to wild birds from widespread public misunderstanding, misconceptions and poor media reporting since the first reports of HPAI over the last few years.
12. Improved databases and management information system design, infrastructure, interoperability as well as support to strengthening institutions and inter-agency cooperation are necessary to enable policy makers and the scientific community to receive the information in a more timely matter.
13. Countries would benefit from establishing national review boards on information release policies that would address a range of issues related to data sharing to overcome institutional and other barriers. (Policies would need to include: level of control on information access at different stages; improved user-friendly means for communication, standardized report formats; policies and procedures for management of databases and management information systems; permissions and restrictions, etc.).

Data quality and information needs

14. Guidance, direction or advice concerning issues of data quality, reliability, metadata and use-value (i.e. who needs what data in what format and for what purpose) on AI and other diseases is required.
15. A wide range of information gaps that need to be addressed include:
 1. Access to information in relation to AI and wild birds, such as:
 - AI surveillance results
 - risk assessment on waterbird species
 - trade in wild birds (legal and illegal)
 - list of bird species in countries
 - routes of bird migration and local movements
 - timing of bird migrations and local movements or "hot time"
 - flyway area of each country for different species
 - species known to have been infected by AI
 2. Basic information about distribution and abundance of wild birds and habitats used:
 - status of waterbird species in each country
 - waterbird migration strategies and biology
 3. Standardized and simplified protocols for:
 - countries to select surveillance sites or "hot spots" and species
 - mechanisms for sharing AI and wild bird information on line
 - use of the Asian Waterbird Census as a starting point in bird and habitat data gathering.
 4. Knowledge of existing research and administrative bodies conducting and responsible for wild bird activities as well as assessment of current research activities.

Strategic Planning

16. More effort is needed to strategic planning for AI control at the national level and for inclusion of wild bird surveillance and related activities in these plans.
17. Discussion and mapping of issues related to political and industry sensitivities is required regarding the release and use of information, responsible use by the media, information gaps, language barriers, incentives and compensation (monetary and other) for sharing and exchanging and data security.