

Update on the Avian Influenza situation (As of 12/05/2005) – Issue no. 30



Buck yard ducks, China
Photo: S. von Dobschuetz

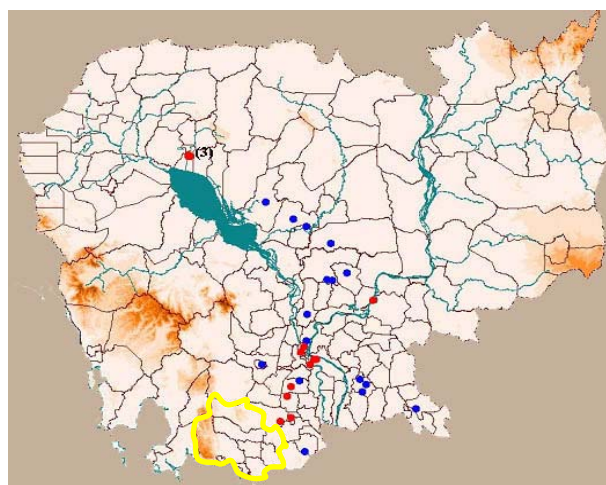
The information summarized below is gathered from official and non official sources, which are quoted in the text. AIDE news is prepared by the FAO Technical Task Force on Avian Influenza.

1. Latest information on Avian Influenza

Outbreak of H5N1 Highly Pathogenic Avian Influenza (HPAI) in poultry has been suspected in Indonesia during the preceding month. The recent outbreak in Democratic People's Republic of Korea (DPRK) appeared to be caused by H7. Although the number of outbreaks appeared to be falling like last year, the need for vigilance to find potentially new cases and their rapid isolation remains a high priority. Biosecurity in domestic poultry production system must be checked again during this period.

Country situation

Cambodia: There have been four fatal human cases confirmed since end of January 2005, all from Kampot Province. In the case of a 28-year-old man, numerous deaths among chickens in the area have been reported and samples taken from sick chickens have tested positive for avian influenza. In the case of an eight-year-old girl, poultry deaths occurred in this Tram Sasor village, Bantey Meas district in February. As for a 20-year-old woman, there was no mortality of poultry in her village but poultry deaths occurred in a village where the woman used to go to school. In the Kampol Meas village Poultry deaths were observed in late March/early April and were continuing into Khmer New Year (14-15 April). A couple of chickens also died in nearby Phnom Srongab village. (11/05/05, Source: FAO, WHO, media websites)



Reported sites with high mortality in poultry
in Cambodia 2004/2005
Blue: negative results, Red: Confirmed H5N1 related
outbreaks (13 sites in 2004 and 2 sites in 2005)
Yellow: Kampot Province
(by Drs S.San and Y. Froehlich)

Viet Nam: No new outbreak of HPAI has been reported since 2 April. However, of more than 10,000 random duck and geese samples gathered from poultry farms across 10 Mekong Delta provinces, 71 percent tested positive this year, according to a Government official. The virus was found in about 26 percent of duck samples. A national conference on reviewing HPAI control and prevention activities during the past two years was held on 18 April outlining a series of measures including readjustment of the poultry production system and trading, slaughtering, processing and transportation of poultry and poultry products; strengthening the veterinary system at farm level; completing the regulatory system to bring the disease under control by 2006 or 2007, and eliminating

the disease by 2010. On 19 April, a ban on poultry farming in Vietnam's urban areas was extended from Ho Chi Minh City to 15 cities and urban areas (Hanoi, the central cities of Hue and Danang Provinces, Quang Ninh Province, and Can Tho Province), and other measures were announced such as closure of small markets dealing in live poultry in urban areas to be replaced by big slaughterhouses; isolation of fowl production establishments from residential areas; a ban on hatching and raising waterfowl extended upto the end of this year; and restriction on local farmers to freely breed waterfowl in fields. Vaccine trials are being carried out at present with inactivated vaccines and a trial with 600,000 doses of a recombinant vaccine has been approved in HCMC. A pilot vaccination in two provinces (Tien Giang and Nam Dinh) is planned for July and August. Based on the outcome of the trials, a nationwide vaccination strategy will be designed and a targeted vaccination countrywide will be considered for October 2005. Since 30/12/04, the confirmed cases in Viet Nam reported by WHO are 41, of which 16 were fatal. (04/05/05, Source: Government, FAO, media websites)

Thailand: The last outbreak was on 12 April at Lop Buri Province. The National Strategic Plan for Avian Influenza Control Thailand was approved by the Thai Cabinet on 25/01/05 and has been operational. The plan includes: development of a disease-free poultry management system; analyse the situation and prepare for use of vaccines for prevention of the disease in poultry; disease surveillance and response during outbreaks; knowledge generation and management; capacity building of organizations and manpower; improvement of understanding and participation of the civil society and private sectors; and development of sustainable integrated management systems and mechanisms. Chicken exports this year in Thailand are expected to reach 300,000 tonnes due to the easing of the bird flu outbreak, according to the Thai Broiler Processing Exporters Association. The poultry meat export from Thailand before HPAI crisis was 624,000 tonnes (2003, FAOSTAT). The main shipment will be cooked products, since raw poultry meat has been banned in big export markets such as Japan and Europe. (15/05/05, Source: Government, FAO, media websites)

Indonesia: 30 chickens were found dead recently in Sidomulya subdistrict, Samarinda, East Kalimantan near the end of April.

A university scientist in east Java detected a H5N1 virus in throat swabs and blood samples from a pig in Surabaya by RT-PCR. Inactivated RNA isolates have been sent to the Tokyo University, where 8 fragments (HA, NA, PA, PB1, PB2, M, NP, NS) were sequenced. Results showed that the virus was similar to the avian influenza virus from poultry, and is characterised by high pathogenicity (based on the study regarding the cleavage site). Gene for haemagglutinin of the isolated virus was more than 98% identical to samples taken from infected Indonesian chickens and quail. The agriculture department will carry out sampling from several pig farms. (30/04/05, source: media websites)

--- Other strains -----

Italy: Italy has detected a low pathogenic avian influenza H5N2 strain in ten turkey flocks in one of its Brescia Province, Lombardia Region on 15 April 2005. Protection zone (1km radius), restriction zone (10km radius) and surveillance zone (Lombardia Region) were enforced till 30 April 2005. (20/04/05, source: media websites)

DPRK: Avian influenza virus subtype H7 was confirmed on 26 March. The National Veterinary and Anti-epizootic Emergency Committee authorised the Central Laboratory to inject chickens in the unaffected blocks and in neighbouring chicken farms with an inactivated vaccine. Chickens at the infected plants were incinerated and buried. All flocks of henhouses tested positive by ELISA were also incinerated and buried. A total of over 218,788 chickens were culled and buried during the disease outbreaks (Hadang chicken farm: 151,968 layer chickens, Sopo farm: 51,820 chickens, Mangyongdae poultry farm: over 15,000 chickens). Sopo and Mangyongdae farms' damage were less as a result of the vaccination that had already been conducted. Antibody responses

following vaccination was good as evaluated by the FAO consultant. The movement control around the plants is in place. Marketing of poultry and eggs is prohibited. Border posts have been installed to control travellers. Action taken on the three infected poultry farms around Pyongyang appears to have been effective in controlling the disease on these farms. The Republic of Korea has sent quarantine equipment, including test kits, decontamination equipment and sprays worth 720 million won (US\$713,000) to DPRK. (22/04/05, source: Government, FAO, OIE, media websites)

Mexico: An outbreak of low pathogenic avian influenza H5N2 has now spread into two states. The outbreak was first detected in the Durango State, but further investigation revealed cases in Coahuila State. The number of affected poultry farms is now 31. (11/04/05 source: Gphin)

--- Other information -----

Myanmar: In mid March, deaths of chickens at Moulmein, Mon State were reported in a web media. The deaths occurred in January 2005 in a farm with 3,000 chickens, 300 birds have died in ten days. Further investigation done by the Government found other 730 death of poultry from four farms in the area. Samples were taken and rapid test, HA/HI tests, ELISA and PCR against AI were conducted. The result showed that the chicken deaths were due to the Newcastle disease. (12/04/05, source: Government, FAO)

China: The General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), confirmed that 203 chickens had died between 3 and 10 April on a farm. Initial tests on the avian influenza virus were conducted on other live chickens in the farm and all results were negative. As a precaution, 8,000 chickens from a flock of 100,000 were slaughtered. The chickens had been infected by a common respiratory tract disease.

Deaths of 178 spot-headed geese at the Qinghai Lake Nature Reserve Qinghai Province have been reported. However, avian influenza was ruled out by the Director of Qinghai Forestry Bureau on 9 May. (09/05/05, source: media websites)

2. Surveillance and Post-epidemic rehabilitation activities – What next?

➤ OIE/FAO Scientific International Conference on Avian Influenza - recommendation

OIE/FAO Scientific International Conference on Avian Influenza was held in Paris on 7-8 April 2005 in collaboration with WHO. The conference reviewed latest scientific knowledge and addressed different aspects of disease control. Topics discussed were: ecology and epidemiology; pathogenesis; human health implications; control; diagnostics; and improvement of management tools. below is the extract of the recommendation of session 6 "Improvement of management tools".

- OIE and FAO implement activities of the joint global OIE/FAO network of expertise for avian influenza as soon as possible;
- The existing FAO regional networks for surveillance and diagnosis be sustained in the long term run;
- The FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) initiatives be used as a foundation for the regional approach to the control and eradication of AI;
- The mandates and missions of international and regional organizations be harmonized to avoid gaps and overlapping;
- The OIE International Committee adopts the proposed new surveillance guidelines on AI during the 73rd General Session. The efficacy of risk reduction and prevention procedures be monitored through targeted surveillance activities, including:

- post-vaccination surveillance to measure efficacy of vaccination
 - early identification of virus circulation
 - monitoring of genetic drift and emergence of new strains
 - monitoring of reservoirs
- The concept of compartmentalisation be recognised as an additional tool in the control of AI and in the facilitation of safe international trade, subject to the effective implementation of the relevant control measures;
 - The OIE and FAO continue to provide practical advice to Member Countries on the establishment and monitoring of compartments, through additional guidelines;
 - FAO, World Bank and other multilateral and bilateral donors should continue to provide assistance to further strengthen countries' compliance with international standards, including on quality of Veterinary Services;
 - That the OIE develop guidelines for AI virus inactivation in processed products;
 - OIE designate prescribed tests for international trade where testing is required by the Terrestrial Code.

The full recommendations are available at:

http://www.fao.org/ag/againfo/subjects/documents/ai/OIE_FAO_Recom_05.pdf
and http://www.oie.int/eng/avian_influenza/OIE_FAO_Recom_05.pdf

The recommendation will be submitted to the OIE Regional and relevant Specialist Commissions and to the OIE International Committee for endorsement during the 73rd General Session in May 2005.

- **Global Strategy for the Progressive Control of Highly Pathogenic Avian Influenza** - One of the recommendations from the Second FAO/OIE Regional Meeting on Avian Influenza Control in Asia (23-25 February 2005) held in Ho Chi Minh City, Viet Nam was to develop a master coordination plan to be prepared with a global vision defining the road map and time frames for the short, medium and long term priority activities, to be endorsed and supported by individual countries and regional organizations to highly pathogenic avian influenza. This recommendation was very much stimulated by the worsening crisis of highly pathogenic avian influenza in Southeast Asia causing increasing number of deaths in human beings.

FAO and OIE, within the umbrella of the global framework for the control of transboundary animal diseases (GF-TADs), and in collaboration with WHO have taken the initiative to develop this draft strategy paper. The draft document entitled 'Global Strategy for the Progressive Control of Highly Pathogenic Avian Influenza' is currently being produced to be shared with the key regional and national stakeholders in Asia to obtain feedback through a consultative meeting to be held in FAO Regional Office for Asia and the Pacific in Bangkok between 17 and 18 May, 2005. It is expected that other regions in Asia, Africa, Americas and Europe will be also be covered later through a series of consultations.

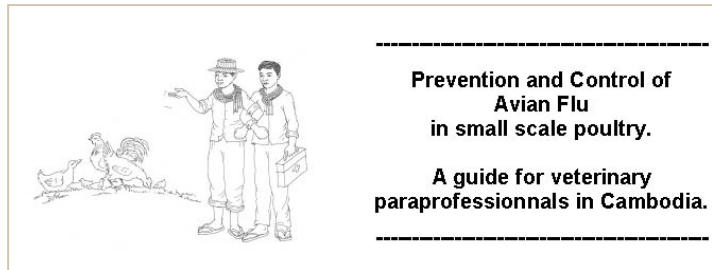
The strategy paper will be further consolidated with more detailed country specific avian influenza plans. These plans are currently being prepared for several countries in Southeast Asia through project formulations missions being organised by FAO. The strategy paper will serve an important role in assisting the affected and non-affected countries in appreciating the global nature of this transboundary zoonotic disease problem, improving their disease control programmes and will also be important for the donors considering providing financial assistance.

- **Outbreak in DPRK contained:** The recent outbreak of avian influenza in DPRK has been successfully contained, but the country needs to continue surveillance on the affected farms and elsewhere to ensure that no residual infection remains. An H7 strain of the bird flu virus had been detected recently on three poultry farms near the capital Pyongyang. Although this virus caused severe disease in chickens it is not directly related to the H5N1 avian influenza virus circulating in other parts of Asia. FAO sent three experts to the country to assist national authorities in diagnosis and disease management. This was done through the East Asian Regional Network on

Avian Influenza set up by FAO. FAO urged DPRK to continue avian influenza surveillance throughout the country. Reagents and laboratory tools provided will assist in continuing the battle against the virus, but additional strengthening of veterinary diagnostic and surveillance capacity is seen as a priority to ensure that this work is completed.

The full text is available at: <http://www.fao.org/newsroom/en/news/2005/102016/index.html>

- **"Prevention and Control of Avian Flu in small-scale poultry: A Guide for veterinary paraprofessionals"**. VSF-CICDA's teams in Viet Nam and Cambodia with cooperation of FAO prepared this new guide for village animal health workers or paravets. The manual is expected to be translated in several countries of South East Asia and will be distributed to veterinary para- professionals. This practical guide should enable paravets to better deal with avian influenza in backyard or small scale poultry units. The full text will be available at: <http://www.fao.org/ag/againfo/subjects/documents/ai/AI-paravets-guide.pdf>



- **Control of transboundary animal diseases In The Greater Mekong Subregion**
- In the wake of the avian influenza crisis, FAO has been working closely with the Asian Development Bank to develop a project on the control of priority transboundary animal disease to include avian influenza, foot and mouth disease and classical swine fever.

The ADB has now offered a grant of US\$1 million which will be combined with the FAO TCP funding to address common issues related to the spread of diseases predominantly by animal movement across borders, in Cambodia, the People's Republic of China, Lao People's Democratic Republic (Lao PDR), Thailand, and Viet Nam. In the long term, this grant is expected to enhance food security and food safety, while promoting greater trade in livestock and livestock products.

The immediate task is to develop a framework for regional cooperation, upgrade national and regional laboratories, and build staff capacity in the participating countries to control transboundary animal diseases. The project represents a major shift toward control rather than the traditional approach of applying mass, blanket vaccination to control outbreaks, which has proven unsustainable and expensive. Introducing policy and technological options that make livestock-dependent poor farmers, especially women, less vulnerable to devastating effects of animal diseases and support their access to markets for economic growth is a major priority of the project.

The grant will bring together international experts and people throughout the GMS who are working with livestock and poultry, such as farmers and traders, veterinarians, community health service providers, non-government organizations, border control units, private pharmaceutical companies, and other stakeholders in the issue. The project is expected to be launched by middle of 2005.

- **Preparing against risk - EU:** The European Commission proposed a new directive designed to prevent outbreaks of avian and human influenza. The new regulation will require member states to introduce and reinforce surveillance and control measures on low pathogenic viruses, aiming to prevent virus mutation and highly pathogenic forms of the disease and to develop vaccination schemes for poultry farms. The measure will have to be approved by the European Council after consultation of the European Parliament. It is expected to enter into force in January 2007.

3. Actions taken – follow-up

- **FAO/OIE Second Regional Meeting on Avian Influenza Control in Animals in Asia (23-25 February): Recommendations** – a joint FAO/OIE meeting in collaboration with WHO and Government of Viet Nam, was held in Ho Chi Minh City, 23-25 February, 2005. The final recommendation of the meeting is posted on FAO AGA website http://www.fao.org/ag/againfo/subjects/documents/ai/AI_2nd_RegMtg_HoChiMinhCity_Rep.pdf
- **FAO AI Workshop in Pyongyang, DPRK** – One day workshop was held in Pyongyang on 14 April 2005. AI surveillance, diagnosis and vaccination were discussed.
- **CLDC workshop on "Animal Health Services at Local Level", 23-24 March 2005, Cambodia** – was held in Phnom Penh City by the Cambodian Livestock Development Committee (CLDC), with the support of VSF-CICDA, the European Union and the French Ministry of Foreign Affairs. The objective was to bring the main stakeholders together to exchange experiences and have a better picture of best practices and lessons learnt in the field of Animal Health Services, especially at local level, with Village Animal Health Workers (paravets), Farmers, Farmers Groups and local authorities. The Avian Influenza in small-scale poultry farms was one of the topics discussed, with the presence of FAO expert and projection of FAO's information film. It was a good opportunity to assess the knowledge of the different stakeholders concerning this issue. If the paravets were aware of some aspects of the disease, transmission process and prevention methods were not clearly known.
- **Workshop on "Upgrade of Disease Surveillance & Information at District level", 20-21 March 2005, Hanoi, Viet Nam.** The 2-day workshop was co-organised by Agronomes & Veterinaires Sans Frontieres (VSF-CICDA) and the Department of Animal Health (DAH / MARD) with participation from representatives of more than 10 provinces (Provincial & District State Veterinary Services, private paraveterinary professionals), and some national and international organisations. The workshop aimed at identifying the key constraints of disease reporting between communities (farmers and private paravets) and State Veterinary Services, and also within the different levels of the State Veterinary Services. The workshop's participants suggested modifications in the current reporting format and modalities. These changes could be applied during 3rd and 4th quarters 2005, through implementation of projects by VSF-CICDA and other organisations, in close collaboration with Department of Animal Health. The workshop's proceedings are being finalised and will be posted on www.livestockworkinggroup.org in May-June. The workshop was supported financially by Pfizer Animal Health Group, French Ministry of Foreign Affairs, Swiss Cooperation & Development Agency, and other international organisations.
- **Consultative Workshop: Review on Draft Global Strategy for the Control of HPAI** – will be held in Bangkok on 17-18 May 2005. This consultation is to discuss the draft master plan for the control of avian influenza that was requested by affected countries and the donors. FAO is preparing a long term vision and a global strategy with defined disease control plans at national, sub-regional and regional levels to progressively control the disease. An advanced draft of the master plan will be circulated for further inputs from key partners in the region that will include countries from South Asia, South East Asia, East Asia subregions, and representatives from the regional organizations such as SAARC and ASEAN.
- **Donors meeting in Cambodia** - The 11th meeting of the donor's coordination for avian influenza was held on 25 April 2005 at FAO Representation Office. The meeting was co-chaired by Mr. Tsukasa Kimoto, FAO Representative in Cambodia and Dr. Jim Tulloch, WHO Representative in Cambodia. At the meeting, recent/current situation of AI and action undertaken by DAHP/MAFF; Human Case and action undertaken by MoH and WHO; the status of on-going and remaining activities of projects in supports of AI Control Programme in Cambodia; Recommendations of the Second FAO/OIE

Regional Meeting on AI held in Ho Chi Minh City, 23 – 25 February 2005; one-year experience in fighting against AI in Cambodia; Donors' support for the AI Control Programme; and a proposal for medium-term activities, involvement of Village Animal Health Worker (VAHW) in surveillance and control for the next two years were presented and discussed.

- **Stakeholder workshop, Indonesia:** A workshop with all stakeholders will be held in June in Jakarta to discuss HPAI project components and management.
- **Recent Missions (April - June):**

*We would be grateful if other organizations/countries could send us information on their assistance missions to the countries concerned.
(e-mail to: Avian-Influenza-Registration@fao.org)*

[Region]

- Dr. L. Sims (Australia) Avian influenza disease Management Expert (mission to China, Democratic People's Republic of Korea, Mongolia). 10-30/04/05

[Cambodia]

- Dr. Y. Froehlich (France) FAO consultant (Project Technical Adviser), ongoing
- Mr B. Merklen international consultant (Project logistics), ongoing
- Dr. S. Desvaux (France) FAO consultant (Veterinary Epidemiologist), ongoing
- Dr. C. Benigno, FAO RAP (Bangkok) Animal Health Officer, ongoing

[Democratic People's Republic of Korea]

- Dr. H. Wagner, FAO RAP (Bangkok) Senior Animal Production and Health Officer, 29/03 – 05/04/05
- Dr. F. Guo (China), Project Co-ordinator, 02-16/04/05

[Indonesia]

- Dr. S. Morzaria, FAO AGAH (Rome) Regional AI Co-ordinator (ECTAD), to commence in the week of 23/05/05
- Dr. W. Kalpravidh, FAO RAP (Bangkok), Project Co-ordinator, to commence in the week of 23/05/05
- Dr. B. Brandenburg (USA), to commence in the week of 23/05/05
- Dr. F. Pluimers (Netherlands) Avian influenza disease management expert, to commence in the week of 01/06/05

[Lao PDR]

- Dr. C. Benigno, FAO RAP (Bangkok) Animal Health Officer, 22-24/04/05; in May 2005

[Pakistan]

- Dr. J.H.Lambers, (Netherlands), international expert in poultry diseases and epidemiology. 18/04–04/05/05

[Thailand]

- Dr. J. Domenech, FAO AGAH (Rome) Chief AGAH, To commence in the week of 16/05/05
- Dr. S. Morzaria, FAO AGAH (Rome) Regional AI Co-ordinator (ECTAD), To commence in the week of 16/05/05

[Viet Nam]

- Dr. J. Domenech, FAO AGAH (Rome) Chief AGAH, STVM Conference, To commence in the week of 20/06/05
- Dr. J. Lubroth, FAO AGAH (Rome) Senior Officer (EMPRES), To commence in the week of 16/05/05
- Dr. V. Martin, FAO AGAH (Rome) Animal Health Officer (Infectious Diseases Emergencies), supervision Mission for Avian Influenza Emergency Recovery Project, Viet Nam, 10-18/04/05; To commence in the week of 13/06/05; and in the week of 18/06/05
- Dr. A. McLeod, FAO AGAL (Rome) Senior Officer (Livestock Policy), supervision Mission for Avian Influenza Emergency Recovery Project, Viet Nam, 17-22/04/05
- Dr. J. Hancock, FAO TCIP (Rome), supervision Mission for Avian Influenza Emergency Recovery Project, Viet Nam, 10-22/04/05
- Dr. A. Tripodi (Germany/Italy), Project Coordinator, ongoing
- Dr. W.Geering (Australia) Veterinary service management expert, 28/3-30/04/05
- Dr. N. Taylor (UK) FAO consultant (Epidemiology), ongoing

4. Resources available

Relevant articles, publications and websites:

FAO

- Second FAO/OIE Regional Meeting on Avian Influenza Control in Asia (23-25 February 2005, Ho Chi Minh City). The full text of the final report is available on: http://www.fao.org/ag/againfo/subjects/documents/ai/AI_2nd_RegMtg_HoChiMinhCity_Rep.pdf
- FAO Recommendations on the Prevention, Control and Eradication of Highly Pathogenic Avian Influenza (HPAI) in Asia <http://www.fao.org/docs/eims/upload/165186/FAOrecommendationsonHPAI.pdf> (233KB)
- Guiding Principles : Highly Pathogenic Avian Influenza Surveillance And Diagnostic Networks In Asia (FAO Expert Meeting 21-23 July 2004, Bangkok)
English: <http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/Guiding%20principles.pdf>
中文: <http://www.fao.org/ag/againfo/subjects/zh/health/diseases-cards/Guidingprinciples.pdf>
- FAO/OIE Emergency Regional Meeting on Avian Influenza Control in Animals in Asia (26-28 February 2004, Bangkok). The full text of the final report is available on: http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/HPAI_Bangkok.pdf
- FAO/OIE/WHO Technical Consultation on the Control of Avian Influenza (3-4 February 2004, Rome) The full text of the Conclusions and recommendations is available on: http://www.fao.org/newsroom/common/ecg/36647_en_experts.pdf
- Manual on the preparation of national animal disease emergency preparedness plans <http://www.fao.org/docrep/004/x2096e/x2096e00.htm>
- The use of vaccination as an option for the control of Avian Influenza (I. Capua, S Marangon) – 71st OIE General Session (May 2003). Available at: http://www.fao.org/docs/eims/upload/153564/A_71_SG_12_CS3E.pdf
- Information for shipping international diagnostic specimens to the International Reference Laboratories (see appendix 2 of AIDENews issue 5 or 6, available at: <http://www.fao.org/ag/AGA/AGAH/EMPRES/index.asp>)
- FAO-EMPRES (Emergency Prevention System against transboundary animal and plant pests and diseases) Avian Influenza website: http://www.fao.org/ag/AGA/AGAH/EMPRES/tadinfo/e_tadAVI.htm
- FAO AGAH Avian Influenza website: http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special_avian.html
- FAO AIDENews (Vol. 1 - 29)
(Available at: http://www.fao.org/ag/AGA/AGAH/EMPRES/tadinfo/e_tadAVI.htm)

OIE

- OIE/FAO International Scientific Conference on Avian Influenza (OIE Paris, France, 7–8 April 2005) Recommendations http://www.oie.int/eng/avian_influenza/OIE_FAO_Recom_05.pdf
- OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2004 - CHAPTER 2.1.14. Highly Pathogenic Avian Influenza http://www.oie.int/eng/normes/mmanual/A_00037.htm
- Proposed new chapter for The OIE Terrestrial Animal Health Code [Chapter 2.1.14.] Avian Influenza: http://www.oie.int/eng/AVIAN_INFLUENZA/safety.htm click the link to the proposed new chapter submitted in May 2004
- OIE Update on Avian Influenza in Animals in Asia web site: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm
- OIE Technical Disease Cards: http://www.oie.int/eng/maladies/fiches/a_A150.htm

WHO

- WHO interim recommendations for the protection of persons involved in the mass slaughter of animals potentially infected with highly pathogenic influenza viruses http://www.who.int/entity/csr/disease/avian_influenza/guidelines/en/Avian%20Influenza.pdf
- Advice for people living in areas affected by bird flu or avian influenza (WHO) <http://www.wpro.who.int/avian/docs/advice.asp>
- Laboratory study of H5N1 viruses in domestic ducks: main findings (WHO) http://www.who.int/csr/disease/avian_influenza/labstudy_2004_10_29/en/
- WHO Avian influenza web site: http://www.who.int/csr/disease/avian_influenza/en/

Others

- Avian Influenza - Disease and Control Strategies and Contingency Planning (intervet) <http://www.avian-influenza.com/>
- Avian Influenza - Its Causes, Effects & Control (Antec International) <http://www.antecint.co.uk/main/avianflu.htm>
- Biosecurity for the Birds (USDA Animal and Plant Health inspection Service, Veterinary Service) <http://www.aphis.usda.gov/vs/birdbiosecurity/>
- Biosecurity for Poultry Flocks (Joan S. Jeffrey, University of California, Davis, School of Veterinary Medicine) http://www.vetmed.ucdavis.edu/vetext/INF-PO_Biosecurity.html
- DEFRA(UK): Low Pathogenic Notifiable Avian Influenza (H5 and H7) in poultry meat (386 KB) - 5 January 2005 <http://www.defra.gov.uk/animalh/diseases/monitoring/pdf/lpai-poultrymeat.pdf>
- DEFRA(UK): Low Pathogenic Notifiable Avian Influenza (H5 and H7) in poultry eggs for consumption (363 KB) - 5 January 2005 <http://www.defra.gov.uk/animalh/diseases/monitoring/pdf/lpai-poultrymeat.pdf>
- Vietnam Livestock Working Group web site (including HPAI disease map) <http://www.livestockworkinggroup.org>
- Experimental Study to Determine if Low-Pathogenicity and High-Pathogenicity Avian Influenza Viruses can be present in chicken breast and thigh meat following intranasal virus inoculation. David E. Swayne and Joan R. Beck (Avian Diseases 49:81–85, 2005) http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15839417 (summary)
- National Strategic Plan for Avian Influenza Control in Thailand <http://www.tatnews.org/ccc/2480.asp>
- Proposal on Strengthening Nationwide Veterinary System during 2005-2010 (2nd draft) <http://www.mard.gov.vn/dah/dichcumga/Nam%202005/DeAn%20tang%20cuong%20Oghethong%20TY%204.05.htm>
- Italian AI outbreak information <http://www.oevr.org/or4/or?uid=oevr.main.index&oid=7656>
- Mexican AI outbreak information <http://web2.senasica.sagarpa.gob.mx/xportal/dgsa/czoo/Doc694/>
- Canadian Animal Health Network Bulletin. Special Edition: Avian Influenza <http://www.cahnet.org/bulletinsE/CahnetBulletin9english.pdf>

Contact persons at FAO:

Juan Lubroth (FAO Headquarters – Rome)

juan.lubroth@fao.org

Vincent Martin (FAO Headquarters – Rome)

vincent.martin@fao.org

Hans Wagner (FAO Regional Office for Asia and the Pacific (RAP) - Bangkok)

hans.wagner@fao.org

Fernanda Guerrieri (Chief, Emergency Operations Service (TCEO), Headquarters - Rome)

Fernanda.Guerrieri@fao.org

Cristina Amaral (Senior Operations Officer, TCEO, FAO Headquarters - Rome) for emergency fund raising and operational responsibilities Cristina.Amaral@fao.org

Supervision and Coordination:

J. Domenech, Chief, Animal Health Service (FAO Headquarters – Rome)

joseph.domenech@fao.org

Annex 1

Information for shipping international diagnostic specimens

To the **Australian Animal Health Laboratory (AAHL)**

The Australian Animal Health Laboratory (AAHL) at Geelong, Australia is an OIE Reference Laboratory for avian influenza and Newcastle disease. It offers a wide range of diagnostic tests and facilities for handling these viruses to support countries in their disease control and eradication programs.

Type of specimen: Specimens submitted to AAHL for disease diagnosis may be either virus isolates made in the submitting country or clinical specimens, such as tissues or swabs, collected from diseased birds.

Import permit and packing: Copies of Australian import permits are available from AAHL by contacting aahl-accessions@csiro.au. All specimens must be packed in leak-proof containers in accordance with the appropriate IATA regulation and appropriately labelled. Suitable transport containers, packing instructions are also available from AAHL by contacting aahl-accessions@csiro.au. Copies of the import permit and other consignment details should be attached to the outside of the package to expedite clearance through Australian customs.

Notification of shipment: If submitting specimens please notify the accessions clerk on accessions@csiro.au, the Duty Veterinarian on dutyvet@csiro.au or Dr. Peter Daniels on +61 3 5227 5000 of the consignment details so that the specimens can be collected upon arrival in Australia. Alternatively send the information by facsimile to +61 3 5227 5555. Consignment details include the consignment note/air weigh bill number, courier/airline and expected arrival date.

Shipping address:

The Director
Australian Animal Health Laboratory
5 Portarlington Road
Geelong, 3220
Australia
Telephone 61 3 5227 5000
Facsimile 61 3 5227 5555
<http://www.csiro.au/aahl>

Contact for Avian Influenza: You may also wish to discuss the testing required with Peter Daniels (peter.daniels@csiro.au) or Paul Selleck (paul.selleck@csiro.au) on +61 3 5227 5000 prior to submitting the specimens.

Annex 2a: Situation in Asian Countries (as of 12/05/2005)

area	date of first official reporting to the OIE	type	species affected since the start of the outbreak	human case	Latest information ¹⁾		
					last known case suspected and/or confirmed	source of the latest information and OIE declaration	comments
Republic of Korea	12/12/03	H5N1	Layer, duck; virus isolated: magpie	no	24/03/04	Government; media websites. Declared to OIE	AHD/MAF informed OIE the negative result of the final serological testing of the sentinel birds on 19/07/04; Final report submitted to OIE on 21/09/04
		H9N2 (LP ³⁾)	Layer	no	10/12/04	Government, media websites	
Viet Nam	8/01/04	H5N1	Chicken, quail, duck, muscovy duck	yes	01/04/05	FAO ²⁾ , Government	
Japan	12/01/04	H5N1	Chicken, crow	sero-positive	05/03/04 (crow)	Government and media website; Declared to OIE	All the movement restrictions lifted by 13/04/04
Taiwan Province of China	20/01/04	H5N2 (LP)	Chicken, duck, pheasant	no	09/03/04	Meeting report, media website. Declared to OIE	
Thailand	23/01/04	H5N1	Tiger, virus isolation: chicken, duck, goose, quail, turkey, stork. Surveillance: the Little Cormorant, Asian Openbill, Scaly-breasted Munia, Red Turtle-Dove, Black Drongo and pigeon.	yes	12/04/05	Government, FAO, media websites. Declared to OIE	
Cambodia	24/01/04	H5N1	Chicken, duck, goose, turkey, guinea fowl, wild bird	yes	April 05	Government, FAO	The fourth human case was confirmed.
Hong Kong SAR	26/01/04	H5N1	Peregrine falcon; Grey heron, Chinese pond heron	no	10/01/05	Declared to OIE	
Lao, PDR	27/01/04	H5N1	Chicken, duck and quail	no	13/02/04	Government, FAO	
Pakistan	28/01/04	H7N3 H9N2 (LP)	layer; broiler	no	November 04	Government, FAO	
Indonesia	06/02/04	H5N1	Chicken, duck and quail	no	end April 05	ProMED, media website	
China	06/02/04	H5N1	Virus isolation: chicken, duck, goose, quail, pigeon, pheasant, black swan	no	06/07/04	Government, FAO, media websites. Declared to OIE	Export ban of poultry products from Anhui Province was lifted on 31/08/04.
Malaysia	19/08/04	H5N1	Chicken, fighting cocks (?)	no	19/11/04	Government, media websites. Declared to OIE	Final report submitted to OIE on 03/01/05
Democratic People's Republic of Korea	07/04/05	H7	Chicken	no	27/03/05	Government, media websites. Declared to OIE	Complete characterisation is awaited.

Annex 2b: Situation in other Countries (as of 12/05/2005)

area	date of official reporting to the OIE	type	species affected since the start of the outbreak	human case	Latest information ¹⁾		
					last known case suspected and/or confirmed	source of information and its OIE declaration	comments
United States of America	11/02/04	H7N2 (LP)	Chicken	no	11/02/04 (Delaware)	Delaware Department of Agriculture Statement; FAO.	Final report submitted to OIE on 15/05/04
		H2N2 (LP)	Chicken	no	03/02/04 (Pennsylvania)	Pennsylvania Department of agriculture website; ProMED	
	23/02/04	H5N2	Chicken	no	Late February (Texas)	Texas Animal Health Commission and USDA website; FAO. Declared to OIE	USDA informed OIE the eradication of HPAI in Gonzales County, Texas on 01/04/04; 17/08/04
		H7N2 (LP)	Chicken	no	09/03/04 (Maryland)	Maryland Department of Agriculture News Release; FAO; Declared to OIE	Final report submitted to OIE on 15/05/04
		H7N3 (LP)	non-commercial	no	22/06/04 (Texas)	Texas Animal Health Commission website	
		H3N2	Turkey	no	17/09/04 (Missouri)	ProMED	
Canada	19/02/04	H7N3 (LP)	Chicken	yes (conjunctivitis)	29/04/04 (British Columbia)	Government website. Declared to OIE	CFIA informed OIE that the identified zone is no longer considered as infected, as of 09/07/04; Final report submitted to OIE on 23/11/04.
	09/03/04	H7N3					
South Africa		H6 (LP)	commercial poultry	no	25/03/04	ProMED	
	06/08/04	H5N2	Ostrich	no	early December (Eastern Cape province)	Web Media	
Egypt		H10N7 (LP)	Wild duck	yes	18/04/04 (from survey sample)	ProMED	
Mexico	20/03/05	LP	Chicken	no	April 2005	Web Media	
Italy		H5N2 (LP)	Turkey	no	15 April 2005 (Lombardia)	Web Media, Local Government	

1) Official (OIE) and unofficial information (ProMED, press agencies, FAO tracking systems...)

2) FAO: FAO representative in concurrence with Government sources

3) LP: low pathogenic strain

4) Gphin: Global Public Health Intelligence Network (Health Canada)

Annex 3**- Donor Assistance –**

Many institutions and governments have committed emergency assistance funds to help control HPAI outbreaks. FAO AIDE news is collecting information on donor assistance (financial, in kind or technical assistance) through FAO representations in Asian countries. FAO recognises that the tables below may be incomplete. We thank all donors and governments for their cooperation in providing additional complementary information.

Recipient countries (As of 12/05/05)**Cambodia**

Donors	Amount (US\$)	Description
FAO TCP	\$387,075	TCP/CMB/3002 Emergency assistance for the control of avian influenza
ADB*	\$91,940	Non-Trust Fund, under general coordination of FAO (for training, equipment and public awareness activities)
Australia	\$50,000	AusAID through FAO Trust Fund (OSRO/CMB/402/AUL)
	\$156,250	Strengthening surveillance and response capacities for Avian Influenza through WHO Cambodia
China	\$50,000	Direct contribution to government (no details given)
France	\$53,480	French Cooperation through FAO Trust Fund (OSRO/CMB/403/FRA)
Germany	\$50,000	GTZ through FAO Trust Fund (OSRO/CMB/401/GER)
Japan	\$56,000	Non-Trust Fund, grant assistance for grass-roots human security project for antiviral medicines & equipment
WHO	\$3,000	PPE supplies/training, lab training for DAHPs investigating teams and Human Flu Vaccine purchase.

China

Donor	Amount (US\$)	Description
FAO TCP	\$387,097	TCP/CPR/3004 Emergency assistance for the control of avian influenza

Indonesia

Donors	Amount (US\$)	Description
FAO TCP	\$388,170	TCP/INS/3001 Emergency assistance for the control of avian influenza
Australia	\$2,597,657 (A\$3,325,000)	Human health protection, antiviral supplies through WHO
		Provide training (2 virologists) in AAHL, Geelong, Australia
		- technical assistance, training, strengthening surveillance and response capacities through WHO Indonesia
		- dispatch 3 epidemiologists working with the Disease Investigation Center's staff members to assist the surveillance action plan
		- dispatch 1 virologist for bench training in DIC R-III, R-IV and R-VI (18 vets and assistants)
		- Provide training (2 field veterinarians) on HPAI in AVA, Singapore
China	\$100,000	Vaccines, training, public awareness at off farm
Germany	\$60,692	OSRO/INS/402/GER through FAO Trust Fund. Four trainings on clinical & gross pathology diagnosis (total 222 veterinarians)
Japan	\$78,906	MAFF provided protective gear through grass roots aid fund
	\$113,000	Public awareness campaign activities
	\$10,000	Through JICA/Indonesia on diagnostic training (24 veterinarians)
Netherlands		May provide veterinary experts in support of FAO operations.
	€89,000	The cooperation plan HPAI Indonesia 2005 (development of coping strategy, Monitoring and surveillance)
USA		Support through the provision of laboratory analysis available in Atlanta
World Bank		- avian influenza workshop in Bengkulu
		- training for field officers & farmers on clinical signs, vaccination & biosecurity measures in Bengkulu (3 districts)

Lao PDR

Donors	Amount (US\$)	Description
FAO TCP	\$384,125	TCP/LAO/3001 Emergency assistance for the control of avian influenza
ADB	\$50,000	Direct procurement of Personnel, Protective clothing and equipment
Australia		Through AusAID to invite two government veterinarian for training course
China	\$50,000	Re-establishing poultry breeding farms
France	\$53,000	For surveillance activities (OSRO/LAO/401/FRA)

Japan	\$50,000	Through JICA
	\$33,758	MoHLW through WHO
USA	\$250,000	Direct contribution to WHO Regional Office (Manila)
WHO		Support for one veterinarian for a 2 month mission
	\$11,050	In kind donation from WPRO

Pakistan

Donors	Amount (US\$)	Description
FAO TCP	\$387,370	TCP/PAK/3002 Emergency assistance for the control of avian influenza
China	\$50,000	For strengthening the diagnostic/samples analysis capacities of the national labs.

Thailand

Donor	Amount (US\$)	Description
FAO		Technical advice of experts
Japan		Experts & standard Antigen/reagents to assist avian influenza typing/sub-typing.

Viet Nam

Donors	Amount (US\$)	Description
FAO TCP	\$387,979	TCP/VIE/3003 Emergency assistance for the control of avian influenza
ADB	\$ 50,000	Protective gear
EC	\$968,000	Protective clothing, lab equipment
Germany	\$ 60,000	laboratory diagnostic equipment
Japan	\$200,000	Tamiflu (anti-viral drug)
	\$1.800.000	Japanese Social Development Fund (JSDF) to assist vulnerable households and strengthen community based early warning through the World Bank AIERP project
WHO		Unspecified in-kind support
World Bank	\$170,000	Formulation mission for Avian Influenza Emergency Recovery Project
	\$5,000,000	Avian Influenza Emergency Recovery Project (AIERP) for strengthening disease surveillance and diagnostic capacity; strengthening the poultry sector infrastructure to better cope with serious disease outbreaks; and safeguarding human health by improving public awareness and information
Denmark	nearly \$130,000	Through DANIDA, in kind cooperation for avian influenza control in 14 provinces (sprayers, protective clothing, diagnostic kits for local veterinarians)
AFD		Assessment mission to support the HPAI situation in Viet Nam and to provide recommendations for short and long term by Agence Française de Développement (AFD), Centre de coopération internationale en recherche agronomique pour le développement (CIRAD) and Vétérinaires Sans Frontières (VSF) was funded by AFD
Republic of Korea	\$30,000	to study measures to prevent and control bird flu

Regional

Donor	Amount (US\$)	Description
Japan	\$1,610,083	MoFA through FAO Trust Fund for CMP, INS, LAO and VIE (OSRO/RAS/401/JPN)
Australia	\$781,250	Strengthening the operations of the WHO Global Outbreak Alert and Response Network
	\$390,625 (A\$500,000)	Experts in epidemiology, animal health, virology, laboratory and public health to address Avian Influenza outbreaks; equipment/consumables through WHO WPRO
	\$117,188 (A\$150,000)	Enabling technical support and the provision of essential supplies to address Avian Influenza (diagnostic kits and PPE) for East Timor, Thailand and Myanmar through WHO SEARO
	\$273,438 (A\$350,000)	Responding to the epidemiological and diagnostic needs arising from the Avian Influenza outbreak at Australian Animal Health Laboratory (AAHL), Geelong
	\$507,813 (A\$650,000)	ASEAN-Australia Development Cooperation Program (regional capacity building to deal with infectious disease outbreaks)
	\$3,906,250 (A\$5million)	Strengthening the regions ability to identify and respond to outbreaks of emerging and resurging zoonotic diseases through WHO WPRO, ASEAN Secretariat and DAFF
Germany	\$6,605,020 (€5,000,000)	HPAI control in Viet Nam, Cambodia, Lao PDR, Thailand, Indonesia. Duration three years.
Netherlands	\$ 250,000	for ECTAD (with additional in-kind expert assistance)
EU		€ ~5 million; wants country and regional strategies + country political commitment
FAO TCP	\$384,231	TCP/RAS/3004 Emergency regional coordination assistance for control of avian influenza in southeast Asia
	\$394,668	TCP/RAS/3006 Diagnostic Laboratory and Surveillance Network Coordination for Control and Prevention of Avian Influenza in Southeast Asia
	\$395,502	TCP/RAS/3007 Diagnostic laboratory and surveillance network coordination for control and prevention of avian influenza in East Asia

FAO TCP (continued)	\$394,444	TCP/RAS/3008 Diagnostic laboratory and surveillance network coordination for control and prevention of avian influenza in South Asia
	\$398,307	TCP/RAS/3010 Emergency regional support for post-avian influenza rehabilitation
	\$350,000	TCP/RAS/3014 Strengthening avian influenza control through improved transboundary animal disease information management system in Asia

EMPRES / Supra-Regional

Donor	Amount (US\$)	Description
FAO TCP	\$370,052	TCP/INT/3010 EMPRES Emergency Centre for Transboundary Animal Disease operations (ECTAD) – Coordination

* Asian Development Bank