FAOAIDEnews
Avian Influenza Disease Emergency

Update on the Avian Influenza situation (As of 5/11/2005) – Issue no. 35

A duck flock in Supanburi Province, Thailand
Photo: Dr. Taweesak Songserm

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

H5N1 Highly Pathogenic Avian Influenza (HPAI) has moved westwards, outbreaks have been confirmed in Turkey, Romania and Croatia. Sporadic outbreaks have been reported in Russia resulting in some deaths/culling of domestic poultry. Resurgence of the disease in China's main farming areas is also a concern. Human fatalities have been confirmed or suspected in Indonesia, Thailand and Viet Nam. Countries in Europe, Near-East and Africa have started implementing various preventive measures.

Country situation

- Eurasia -

Croatia: The first case was a swan found on 19 October. So far, more than 35 mute swans (*Cygnus olor*) have been found dead in Zdenci Municipality, Viroviticko-Podravska County (19 October); Zdenci Nature Park (21 October) and surroundings (24 October); Nasice (22 October); Baranjsko Petrovo Selo Village; and near Slavonski Brod City (27 October), and the presence of HPAI H5N1 virus confirmed in some cases. A swan, ringed in Hungary, was found dead and tested positive for H5N1 strain. (02/11/05, source: Government, Media news)

Romania: On 4 October, deaths of chickens and ducks occurred in a backyard farm in Ceamurlia de Jos Village in the Danube delta, and HPAI H5N1 virus was confirmed in duck samples. Deaths of more than a hundred birds (ducks, domestic geese and 40 swans) were also discovered in the suburbs of Maliuc Village, and tests were positive for HPAI H5N1. A few swans in Maliuc and a wild duck in Ceamurlia de Jos also tested seropositive. In mid-October, a swan found dead near CA Rosetti Village, 10 km from the border with Ukraine was seropositive. A heron found dead in Vaslui County, on the Prut River shore 700 meters from the bridge border with Moldavia, tested positive for antibodies and H5N1 virus. On 31 October, a swan was found dead in Lake Razim, and a goose was found in Vadu Oii, Constanta County on the Black Sea. They tested positive for avian influenza (AI). A subsequent survey 424 samples were taken from areas where dead birds had been found, and the results were all negative. Virus-free 20-day-old chickens are to be sent to the two quarantined villages as sentinels. (31/10/05, source: Government, Media news)

Russia: In early October, an outbreak of H5N1 occurred in an industrial poultry farm in Kurgan Region which resulted in the culling of more than 460,000 birds. Outbreaks were also suspected/confirmed in two settlements in Altai Territory (12 October); in chickens, geese and ducks in Yandovka settlement in Tula Region (17 October); in chickens in Ioujniï Village, Tambov Region (21 October); in chickens in Sunaly Village, Chelyabinsk Region (22 October); in Morshansk, Morshanskogo, Tambov Region (24 October); in Pokrovka Village, Altai Territory, Sunaly, Chelyabinsk Region and Streltsy Settlement, Tambov Region (26 October); in Novichiha Settlement, Altai Territory and in chickens

and ducks in Rozovka Settlement, Omsk Region near the border with Kazakhstan (27 October); in Polovinnoe Village, Kurgan Region (29 October); in Grjaznova Village, Altai Territory and in Shatrovo Village, Chelyabinsk Region (31 October); SHatrovo, Chelyabinsk Region (1 November), Morshanska, Tambov Region (2 November) and Novosanzharovka, Omsk Region (3 November). (03/11/05 source: Government website, Media news)

Turkey: On 1 October, deaths of 1,700 turkeys out of 1,800 occurred at a free-range farm next to the Manyas Lake between the Kaziksa and Salur Villages in Balikesir Province and HPAI H5N1 virus was confirmed. The north-east side of Manyas Lake is the Kuscenneti National Park. All birds on the farm were slaughtered, and a local crisis centre has been established. The authorities placed a quarantine zone of three kilometre radius around two villages and a 10-kilometer surveillance zone outside the quarantined zone. Some 500,000 birds on the farms in the surveillance zone are being closely monitored. (21/10/05, source: FAO, Government, media websites)

- Europe -

UK: On 21 October, HPAI H5 virus was found in a dead parrot imported from Suriname and kept in quarantine with birds from Taiwan Province of China. (23/10/05, source: Government)

- South, Southeast and East Asia –

China: HPAI H5N1 has been discovered in chickens and ducks in Tengjiaying Village, near Hohhot, Huhehot Municipality, Inner Mongolia Autonomous Region (14 October); in chickens and geese in Liangying Village, Tian Chang City, Anhui Province (20 October); in chickens and ducks in Wantang Village, Xiangtan County, Hunan Province (22 October) and in chickens in Badaohao, Jinzhou Municipality, Liaoning Province and 20 wild birds, mostly magpies, were also found dead in the Heishan County. (26 October). About 222,000 birds have died or been culled, and 14,249,927 were vaccinated in Inner Mongolia, Anhui, Hunan and Liaoning with monovalent inactivated vaccine of subtype H5N2. (03/11/05, Source: Government, FAO, media websites)

Thailand: During October, outbreaks of HPAI H5N1 were reported in KamphaengPhet, KanchanaBuri, NakhonPathom, NonthaBuri and SuphanBuri Provinces. A total of 29,175 poultry have died and 68,223 have been culled. The outbreaks were all in the central poultry zone, one of the five which have been established for effective movement control and farming management. A sample from wild sparrows out of 300 taken from birds in Ban Khao Ngaem Village, Ratchaburi Town, Ratchaburi Province in the central zone tested positive for the H5N1 strain. On 31 October, an outbreak of H5N1 was confirmed in chickens in Kalasin Province in the north-eastern zone. In addition, four chickens died in Sam Chuk District, Suphanburi Province and HPAI was suspected.

The seven-year-old son of a Thai farmer from Kanchanaburi Province tested positive for avian influenza. The father, a 48-year-old farmer, died on 19 October. He and his son slaughtered and ate his neighbour's sick/dead chickens. A 50-year-old woman from near Bangkok tested positive for H5N1. She kept her backyard chickens.

Thailand has developed rapid response teams to identify possible human infection with the AI virus, get patients to hospitals and confirm diagnosis with laboratory testing. The system is designed to contain a potential outbreak of AI in human in a zone and prevent spread throughout the country. Approximately 900,000 volunteers are conducting a door-to-door survey searching for cases of HPAI. (01/11/05, Source: Government, FAO, media websites)

Viet Nam: On 3 October, 400 ducks were found dead in Dong Thap Province and tested positive for H5N1. On 18 October, an outbreak of HPAI was reported with deaths of 110 ducks out of over 300 raised by a local farmer in Hong Dan district, Bac Lieu Province. The flock located in the vaccination zone but was not vaccinated yet. Some 3,000 poultry, mainly ducks, in Viet Yen and Yen Dung districts, Bac Giang Province died between 25 and 30 October, Samples were tested positive for H5N1 virus. The nationwide AI

vaccination campaign is undertaking in 48 provinces out of 64 provinces/cities in Viet Nam. 77.6 million doses of AI vaccines, including both H5N1 and H5N1 vaccines, have been administered for eligible birds. The first vaccination campaign is planned to be completed early December 2005.

A 24-year-old girl died on 23 October and a 26-year-old man on 26 October in a hospital in Dong Hoi, Quang Binh Province after showing symptoms similar to AI but no testing has yet been done. They ate a goose and a chicken egg about one week before sickness. Japanese and Vietnamese researchers analyzed the genes of the virulent H5N1 avian influenza virus taken from a 14-year-old Vietnamese girl, who became infected in February, but recovered. Their laboratory examination showed that the virus had a genetic mutation that makes it resistant to Tamiflu.

Bans on poultry farming, trade of live birds and slaughter of poultry in major cities, including Hanoi, Hai Phong, Vinh and Ho Chi Minh City as well as the sale of raw blood pudding made from ducks and geese have been proposed by Ministry of Agriculture and Rural Development. Rural farmers may raise poultry but need to register. (01/11/05, source: FAO, Media news)

Indonesia: From 8 October, deaths of hundreds of domestic poultry were reported in Kediri. Around 30-50 poultry died daily. On 26 October, more than 25 chickens died in Padang Sambian Village near Denpasar in Bali Island, with clinical signs similar to AI. Cases of HPAI may increase again in the wet season from November to April.

A 21-year-old man from Lampung Province in Sumatra tested positive for the virus. The man had direct contact with dying chickens in his household shortly before the onset of illness. On 9 October, his nephew, a 4-year-old boy from Lampung Province preliminarily tested positive for H5N1. A man and his son were hospitalized on 12 October with suspected AI. A 23-year-old man from Bogor, south of Jakarta died from H5N1 on 30 September.

On 27 October, the Agriculture Minister said that bird flu had spread to residential areas as almost all chickens infected by the virus were found in housing areas, not in the farms. The ministry will mobilise 500 - 1,000 veterinary students and volunteers to help locate sick chickens. (27/10/05, source: Media news)

Cambodia: National Animal Health and Production Investigation Centre (NAHPIC) and the Pasteur Institute in Phnom Penh conducted a survey in Prey Veng Province. The team investigated two communes, where the H5N1 antibodies had been detected in ducks. They interviewed 250 households with poultry and took 267 blood samples. The samples were tested by Haemagglutination Inhibition (HI), and 63 samples in eight flocks out of 267 were found positive. The presence of antibodies does not mean that the ducks are sick and shedding virus but shows past contact with the virus. Of the eight flocks, 60 to 100% sera were positive but only three flocks faced high mortality. This result confirms that ducks can be infected without signs or mortality. At the same time, five negative flocks had high mortality indicating the presence of other disease with high mortality. (27/10/05 source: FAO Cambodia)

--- Other strains/strain not yet confirmed ----------

Germany: On 24 October, a total of 25 geese and ducks were found dead at a lake popular for migratory birds in Rhineland-Palatinate State. The preliminary test on a wild goose was positive for influenza A. (25/10/05, source: Media news)

Canada: A survey of 4,800 wild migratory ducks conducted during last summer found evidence of H5 in 28 migratory ducks in Quebec Province and five in Manitoba Province. (31/10/05, source: Government)

Japan: On 31 October, antibodies to AI virus were detected in chickens by AGID and HI tests at an open-type farm with 82,046 chickens in Ibaraki prefecture, within the quarantined area of a previous outbreak in August. No virus was isolated. All the birds at

the farm have been culled. AI infection was also reported on the same day in a duck farm in Osaka Prefecture. AI H4 strain was diagnosed. (02/11/05, source Prefecture, media website)

Other AI viruses (non-HPAI-H5N1) were reported in Sweden (LPAI H5), Columbia (LPAI H9) and Iraq (in Erbil, H9). (source: FAO, Government, ProMED)

--- **Other information** ----------

Ukraine: Deaths of chickens have occurred in Myrolyubivka Village, Dnipropetrovsk Region. Turkeys and geese were not affected. (04/11/05, source: Media news)

Republic of Korea: Some 1,000 out of 1200 ducklings have died at a poultry farm in Dopyung-Dong, Jeju Island on 1 November. About 10 died at the same farm on 21 October tested negative for avian influenza (02/11/05, source: media news)

Greece: On 17 October, an outbreak of AI H5 was reported at a small farm with about 20 turkeys and some chickens on Oinousses Island, Chios Prefecture. The birds started to die on 13 October. One of the nine samples taken from the birds tested positive for H5 antibodies. Preventive measures have been applied in Oinouses, Chios and Psara. Samples taken from around the country have been tested and all but the single case in Oinouses were negative. Samples sent to VLA-Weybridge, UK tested negative. On 29 October, the Government lifted precautionary measures in the eastern islands after final tests gave a negative result. (29/10/05, source: FAO, Media news)

Macedonia: A total of 1,000 chickens and turkeys were found dead in two southern villages, and more than 10,000 chickens were slaughtered in the village. Samples sent to UK tested negative. (01/11/05, source: FAO, Media news)

Iraq: In mid October, deaths of birds were reported in chickens in a poultry farm near Khabat, Kurdistan. Samples were taken from the chickens and the preliminary analyses were positive for AI. Further testing was done in Egypt and H9 virus was confirmed. Between 12 and 27 October, hundreds of dead birds were reported in Dora, Sha'ab and al-Ghazelyia districts in Baghdad. Samples have been sent to the WHO regional laboratory in Cairo for testing. (27/10/05, source: FAO, IRIN news)

Iran: Deaths of thousands of migratory birds have been reported in Azerbayjane Gharbi Province along the Aras River. Bacterial toxication is suspected as the cause. Samples have been sent to the OIE reference Laboratory for testing. (26/10/05, source: Government, FAO, Media news)

Deaths of birds were also reported in Albania, Azerbaijan, Brazil, Bosnia Herzegovina, Bulgaria, Estonia, France, Georgia, Hungary, Kosovo, India, Israel, Italy, Lebanon, Philippines, Portugal, Singapore, Tajikistan, Venezuela and Yemen. (04/11/05, source: Media news)

2. Where we are now

- **Africa may face serious risk**

  After the confirmed outbreaks of HPAI in Romania, Turkey and Croatia, the risk of AI spreading to the Middle East and African countries has markedly increased. Wild birds seem to be one of the main AI carriers, but more research is urgently needed to fully understand their role in spreading the virus.

  One of the concerns is the potential spread of HPAI to northern and eastern Africa. The situation in eastern Africa is a major concern, where veterinary services, due to various constraints, could have more difficulties to implement efficient disease control campaigns based on slaughtering infected birds and/or vaccination. The countries

concerned and the international community have to make every effort to ensure that AI does not become endemic in Africa. If the virus were to become endemic in eastern Africa, it could increase the risk of the virus evolving through mutation or reassortment into a strain that could be transmitted between humans. The countries urgently need international assistance to build up basic surveillance and control systems.

The full text is available at: http://www.fao.org/newsroom/en/news/2005/108212/index.html

- **How to stop bird flu**

The deadly AI virus H5N1 in countries outside Southeast Asia has spread continuously. We can expect that it will reach the Middle East and countries in Africa in the very near future. The current AI scenario calls for rational and immediate action to fight the disease at its origin - in animals. AI is first of all a disease of birds that requires a veterinary response.

FAO is concerned about the epicentre of the disease in south-east Asia, where the virus has become endemic and where some countries are facing heavy virus infection. Furthermore, the potential spread of the virus to African countries could be a disaster, considering their relatively weak human-health and veterinary infrastructures. Regrettably, the weak state of veterinary services in many poor countries is being ignored. Affected countries and the international community urgently need to invest more in support of veterinarians and animal health workers, because they represent the first line of defence against the virus.

The Food and Agriculture Organization of the UN (FAO) and the World Organisation for Animal Health (OIE) have developed a detailed global strategy for the control of AI in animals and have calculated the cost of implementation at about US$ 175 million, to support surveillance, diagnosis and other control measures, including vaccination. We are still facing a serious funding gap and have only received around US$ 30 million to date from Germany, Japan, the Netherlands, Switzerland and the United States.

Countries at risk and the international community need to act rapidly to control AI at its source in animals. We cannot afford to wait to battle a human pandemic in pharmacies and hospitals, but need to eliminate the virus in affected farmers' backyards.

The full text is available at: http://www.fao.org/newsroom/en/news/2005/108298/index.html

- **Banning poultry imports should be based on established rules**

General and pre-emptive import bans on poultry that do not distinguish between infected and non-infected countries are contrary to the spirit of the World Trade Organization (WTO) standards set by the World Organisation for Animal Health (OIE) and recommendations made by FAO. As countries establish pre-emptive import bans on poultry to prevent possible AI outbreaks, in some cases, the bans include poultry from all countries, even those considered to be free from HPAI and those that have never experienced an outbreak of H5N1. Bans on poultry products from disease-free countries increase uncertainties in the global meat market - which is already threatened by potential supply shortages and rising meat prices due to continuing BSE-restrictions on North American beef and recent FMD-restrictions on meat from Brazil. Trade restrictions to safeguard human and animal health should be imposed only in proportion to the risk involved and that they should be removed promptly when no longer justified. Countries exporting poultry products must also ensure that any occurrence of the disease is immediately announced to all trading partners and necessary steps are taken to limit the spread of the disease. AI is not a food-borne disease and AI virus is killed by the temperature reached in normal cooking. There is no risk of getting AI from properly cooked poultry and eggs. Meat processors are urged to apply necessary safety measures to prevent virus transmission to humans.

The full text is available at: http://www.fao.org/newsroom/en/news/2005/108286/index.html

- **Helping Indonesia fight HPAI at its source in poultry**
  FAO has assembled an emergency team of experts in Indonesia to help the country embark on a new phase of the battle against HPAI at source in poultry. The serious HPAI situation in Indonesia requires a strong coordinated response involving all players from the national level down to the many districts and local communities. FAO aims first to set up a task force involving national veterinary authorities, ministries, the World Health Organization (WHO) and the World Food Programme for logistical support. The basic objective is to kick-start virus control activities in the field. FAO will therefore assist in the establishment of local disease control centres in hot-spot areas. These centres will offer up-dated information and will train animal health technicians and veterinarians in how to carry out rapid disease search and control. The FAO emergency project in Indonesia will be funded by the US Agency for International Development (USAID) with $1.5 million.

  The full text is available at: http://www.fao.org/newsroom/en/news/2005/1000091/index.html

- **Preventive measures** - Many countries have responded actively to the changing situation of AI during preceding one month: a call on private enterprises for preventive measures (Lebanon, Syria); closure of bird markets (Ireland, Northern Ireland/UK); containment of birds (Ireland, Luxemburg, Morocco, Slovakia, Spain, Sweden); coordination of bilateral border control measures (Israel/Jordan); designation of a high risk zone (Romania, Spain); fishing ban in high risk zone (Spain); import ban of captive birds (EU); import ban of pet birds (Malaysia); import ban of poultry and poultry products (Angola, Bangladesh, Bulgaria, Comoro, Cote d'Ivoire, Djibouti, Ethiopia, Equatorial Guinea, Gabon, Gambia, Hong Kong SAR, Kenya, Madagascar, Mauritius, Morocco, Netherlands, Niger, Russia, Rwanda, DR Congo, Sierra Leone, Tanzania, Togo, Uganda and Ukraine); keeping channels of communication open for AI (Jordan/Syria); migratory bird Surveillance (Italy, Northern Ireland/UK, Romania); Pandemic Evacuation Plan (Australia); raised funds for preventive measures (Georgia, USA); registering birds (Ireland); Simulation exercise (Austria, France, Taiwan Province of China); Strengthen border control (Australia, Taiwan Province of China, Italy, Malta, UK); Strengthening of control of hunting/selling migratory birds (Bangladesh, Croatia, Romania); vaccination at zoos (Spain). High level meetings were/to be held to discuss AI risks and human pandemic: the APEC forum on human pandemic (31 October, Australia); Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) summit featuring HPAI issue (1-3 November, Thailand); Seventh Conference of African Ministers responsible for Livestock (3 November, Rwanda); conference on AI and a possible human pandemic (7 December, UK). FAO and WHO warns of the high risk of human infection from an avian H5N1 virus in Africa. Mr. Kofi A. Annan, the Secretary-General of the United Nations warned that "If they (farmers) are not compensated, they are not going to tell you when their birds are sick." (source: FAO, Euro surveillance weekly, media websites)

- **Call for international companies in promoting public awareness** – Under the current threat of bird flu, people in regions other than Asia have started to become concerned. For most of them, bird flu was something occurring in the other side of the world in past years and therefore when it comes closer they suddenly realise that they don't know what to do! Governments are busy preparing their contingency plans and strengthening surveillance and laboratory diagnosis within limited budgets. Public awareness may be left aside until an outbreak occurs. Although it is important to stop transmission of the virus at the village level, usually it is very difficult for a government to take preventive actions from something which is not yet happening.

  FAO would like to request private companies to support governments of developing countries in providing radio programs in local languages to inform people what is safe to do and what is dangerous. Such programs will attract great attention, and therefore can be a good advertisement – if the name of the company who provides such useful information is announced in the middle of the program. There are so many countries where TV is still a luxury and people rely on radio for information.

There is not much that can be done to stop migrating birds which may carry the virus, a lot can be done to improve biosecurity/hygiene at household level.

- **Economics of Avian Influenza control: the need for investment planning -** The need for a long-term control strategy for HPAI is widely recognised and countries that are affected or at risk need to plan the costs for a long-term disease control strategy tailored specifically to their conditions. The need for investment is self-evident, since direct and indirect losses resulting from outbreaks are substantial. The disease has led to the death and culling of over 130 million birds in Asia, substantial losses in the smallholder sector and protracted impact on regional and international trade.

  The cost may be classified in two levels: initial "investment costs" for laboratory upgrade, staff training, developing publicity materials, review of regulations, and the recurrent costs of running a vaccination programme, stamping out measures, surveillance, continued pubic awareness or a human health programme; whereas "Recurrent costs" of an HPAI programme may run for several years and will include surveillance, outbreak response, compensation funds and continuing awareness campaigns. The resources available from national animal health budgets, from state budget and international donors differ considerably between countries depending on the strategy used and the tax base available. It can be assumed that a substantial rise in animal health budgets will be required for control measures to be implemented. Long term measures to reduce HPAI risks may involve restructuring of the poultry industry with considerable indirect costs, particularly to smallholder producers. Identifying the relevant private and governmental stakeholders and their potential roles in financing the control of HPAI is essential to ensure such a sustainable long-term control strategy. Funds can be generated by contributions from various sources, for example private livestock producers, feed and pharmaceutical companies or tax payers.
  Comprehensive documents prepared for discussion at WHO/OIE/FAO/World Bank Meeting in Geneva will be available at:
  http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special_avian.html

3. Actions taken

- **Five FAO regional projects on HPAI early detection to be started -** Emergency assistance for early detection and prevention of HPAI for Eastern Europe and Caucasus regions, Middle East Region, Northern, Eastern, Western and Southern Africa are to be started. The objective of the projects is: to mount emergency preparedness planning against the possible introduction of HPAI into the region; to build public awareness of the issues relating to the risks; to strengthen HPAI field surveillance and laboratory diagnosis; to strengthen the HPAI disease intelligence capacity; to establish information and technology network linkages among regions through global HPAI surveillance system; and to generate an understanding of migratory bird movement into and within the region and the potential for their contact with domestic poultry.

- **Updated Global Strategy** for the Progressive Control of Highly Pathogenic Avian Influenza (HPAI)is available on the website at:
  http://www.fao.org/ag/againfo/subjects/documents/ai/HPAIGlobalStrategy31Oct05.pdf

- **Workshop on Community-Based Disease Control in Indonesia** will be held in Jakarta, Indonesia in November 2005 by FAO with the collaboration of Directorate General of Livestock Services (DGLS), Indonesia. This workshop is organised to develop four pilot community-based programs to sensitise villagers on HPAI control through Village Animal Health Workers (VAHWs). The community-based programs will be part of a comprehensive HPAI control program in the frame of the Indonesian National AI Control Strategy.

  Disease control requires a strong commitment by the rural population with improved understanding of the disease in all of its dimensions: risk of the disease; mode of transmission; importance of early detection; need of taking appropriate measures in

case of disease outbreaks; necessity of reporting; and control mechanism through vaccination. VAHWs are key players in disease control in Indonesian communities as they are farmers themselves, in the same ethnic group with same culture as villagers and have a good understanding of problems at the grassroots level. They can disseminate messages and positively influence community behaviours.

Village poultry are difficult to include into an organized disease control programme due to their low-input-low-output type of production, the limited knowledge by village poultry owners and their free-ranging nature. Therefore, the rationale for the workshop is to explore the possibilities for a community-based disease control approach at the sub-district and village levels. This approach will focus on the small scale producers emphasising on: awareness; prevention and control; enforcement; reporting; and early detection. The lack of early warning network is seriously hampering the early detection of new HPAI outbreaks in rural poultry farming systems and farmers can play an important role in early reporting. Government officers from four pilot districts; national NGO representatives; resource persons from the region to share community based experiences in HPAI control; FAO Sustainable Development, Animal Production and Animal Health officers will participate to the workshop. Controlling HPAI in village poultry will have a positive impact in preventing disease transmission to humans and can make a significant and positive contribution to the lives of people in rural areas.

- **Regional workshop on standardising procedures for FAO network laboratories for diagnosis of highly pathogenic avian influenza** will be organized by FAO from in December 2005 in Geelong, Australia in collaboration with Australian Animal Health Laboratory (AAHL). The objective of this workshop is to provide additional training in AI diagnosis for regional hub laboratories in sub-regions in Asia. Participants were from Laboratories in China, India, Malaysia and Pakistan.
- **Regional Workshop on Preparedness and Emergency Response for AI in Non-affected Countries** was organised by FAO from 18 to 21 October in Bangkok in collaboration with Department of Agriculture, Fisheries and Forestry (Australia) and Centers for Epidemiology and Animal Health (USA). Participants were from Afghanistan, Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, Papua New Guinea, Philippines, Sri Lanka and Timor-Leste.
- **WHO/FAO/OIE/WB Technical Meeting** will be held in Geneva, Switzerland in early November to discuss a worldwide concerted approach. The meeting will focus on how to control the source of bird flu while simultaneously preparing for a human pandemic influenza. Member States, non-governmental organizations (NGOs) and the media will attend from 7 to 9 November. Participants are expected to agree on "TheH5N1 Agenda: Towards a global strategy", with the means to identify and prioritize the financial requirements for combating the HPAI and agree on coordination and financial mechanisms.
- **Recent Missions (October-November)**:

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)

[Regional]
- Dr N. Taylor (UK) FAO consultant (Epidemiology), Mission to Democratic People's Republic of Korea, Mongolia and Myanmar, 10/10-2/11/05

[Armenia]
- Dr K. Sumption, FAO AGAH (Rome) Secretary EUFMD, to assist development of the national strategy and contingency plan of HPAI in domestic species, 28-31/10/05

[Cambodia]
- Dr Lu Huaguang (USA/China) FAO TCDC Consultant (Laboratory diagnostics), 8-31/10/05

[DPR Korea]
- Dr Guo Fusheng, FAOR (China) Project Coordinator (laboratory diagnosis), 04-15/10/05

[Indonesia]

- Dr P. Roeder FAO AGAH (Rome) Animal Health Officer (Virology) launching of UN AI control programme, Ongoing
- Mr A. Duqueza (Philippines) FAO TCDC expert (Project finance & administration officer), Ongoing.
- Dr A. McLeod, FAO AGAL (Rome) Senior Officer (Livestock Policy), APHCA meeting; FAO-APHCA/OIE Regional Avian Influenza Economic Assessment Workshop; Discuss socio-economic studies and community-level activities of National Avian Influenza Control Project 26/09-05/10/05
- Mr W. Schoustra, FAO AGAH (Rome) FAO consultant, APHCA meeting; FAO-APHCA/OIE Regional Avian Influenza Economic Assessment Workshop; Discuss socio-economic studies and community-level activities of National Avian Influenza Control Project 26/09-05/10/05

[Lao PDR]

- Ms E. Bautista (Philippines) FAO TCDC expert (Project finance & administration officer), Ongoing.

[Romania]

- Dr E. Berriatua (Spain) FAO Consultant (Veterinary Epidemiologist), Ongoing
- Dr K. Depner (Germany) FAO Consultant (Veterinary Epidemiologist), Ongoing
- Dr V. Guberti (Italy) FAO Consultant (Veterinary Epidemiologist), Ongoing

[Sri Lanka]

-Dr M Oberoi, FAOR (India) Project Coordinator, to assist emergency preparedness planning and to participate Stakeholder Awareness Workshop, To commence in The week of 07/11/05

[Thailand]

- Dr J. Slingenburgh FAO AGAH (Rome) Senior Officer, FAO-USAID Workshop on Immediate assistance for strengthening community-based Early Warning and Early Reaction to avian influenza outbreaks in Cambodia, Indonesia, Lao PDR, PR China and Viet Nam, 16-21/10/05
- Dr M. Oberoi, FAOR (India), SAARC Regional Coordinator, FAO Workshop on Emergency Management for Asian Countries free of highly pathogenic avian influenza, Bangkok, 18-21/10/05.
- Ms A. Kamata, FAO AGAH (Rome) Animal Health Officer, To commence in the week of 21/11/05

[Turkey]

- Dr G. Ferrari, FAO AGAH (Rome) Animal Health Officer (GTFS/INT/907/ITA), 17 – 21 October 2005

[United Arab Emirates]

- Dr. F. Pluimers (Netherlands) UAE consultant (Avian influenza disease management), Ongoing

[Viet Nam]

- Dr A. McLeod, FAO AGAH (Rome) Senior Officer (Livestock Policy), Supervision mission for AIERP, 17/10/05-2/11/05; 17/11/05–1/12/05
- Dr V. Martin, FAO AGAH (Rome) Animal Health Officer (Infectious Diseases Emergencies), Supervision mission for AIERP, 16-26/10/05
- Dr L. Sims (Australia) AIERP Avian influenza disease Management Expert. 16-29/10/05
- Dr A. Tripodi (Germany/Italy), Project Coordinator, Ongoing
- Dr B. Brandenburg (USA), FAO consultant, 17-31/10/05
- Mr K. Morteo, FAO AFIS (Rome) System Development Specialist, To commence in the week of 14/11/05
- Ms A. Kamata, FAO AGAH (Rome) Animal Health Officer, To commence in the week of 14/11/05

[Other]

- Dr J. Lubroth, FAO AGAH (Rome) Senior Officer (EMPRES), International Partnership on Avian and Pandemic Influenza (IPAPI), Washington D.C. 5-9/10/05
- Dr S. Morzaria, FAO RAP (Bangkok), Chief Technical Adviser (GCP/RAS/206/ASB), APEC Meeting on Avian and Pandemic Influenza Preparedness and Response (as Observer), 31/10-01/11/05

4. Resources available

Relevant articles, publications and websites:

FAO

- A Global Strategy for the Progressive Control of Highly Pathogenic Avian Influenza http://www.fao.org/ag/againfo/subjects/documents/ai/HPAIGlobalStrategy31Oct05.pdf
- The FAO/OIE/WHO Consultation on Avian Influenza and Human Health: Risk Reduction Measures in Producing, Marketing, and Living with Animals in Asia http://www.fao.org/ag/againfo/subjects/documents/ai/concmalaysia.pdf
- 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
- Avian Influenza In Mongolia (Synthesis Report of Two Missions of Dr Les Sims, FAO Consultant) August 2005 http://www.fao.org/ag/againfo/subjects/documents/ai/AI in Mongolia.pdf
- Epidemiology of H5N1 Avian Influenza in Asia and Implications for Regional Control (Covering the period January 2003 to February 11, 2005) EpiCentre, Massey University http://www.fao.org/ag/againfo/subjects/documents/ai/HPAI?Masseyreport.pdf
- Manual on the preparation of national animal disease emergency preparedness plans http://www.fao.org/docrep/004/x2096e/x2096e00.htm
- Information for shipping international diagnostic specimens to the International Reference Laboratories (see appendix 2 of AIDEnews issue 5, 6 and 30, 31, available at: http://www.fao.org/eims/secretariat/empres/eims_search/simple_s_result.asp?infotype=37)
- FAO-EMPRES (Emergency Prevention System against transboundary animal and plant pests and diseases) Avian Influenza website: http://www.fao.org/AG/AGAInfo/programmes/en/empres/home.asp
- FAO AGAH Avian Influenza website: http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special_avian.html
- FAO AIDEnews (Vol. 1 - 34)
  Available at: http://www.fao.org/eims/secretariat/empres/eims_search/simple_s_result.asp?infotype=37

OIE

- Report of the Mission to Russia to assess the avian influenza situation in wildlife and the national measures being taken to minimize the risk of international spread http://www.oie.int/downld/Missions/2005/ReportRussia2005Final2.pdf
- 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 [Chapter 2.7.12.] Avian Influenza (May 2005) http://www.oie.int/eng/normes/mmanual/A_00037.htm

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- OIE Technical Disease Cards: http://www.oie.int/eng/maladies/fiches/a_A150.htm

WHO

- Responding to the avian influenza pandemic threat. Recommended strategic actions http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_8/en/index.html
- WHO Inter-country Consultation - Influenza A/H5N1 in Humans in Asia. Manila, 6-7th May 2005 http://www.who.int/entity/csr/disease/avian_influenza/H5N1IntercountryAssessment.pdf
- 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

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- Russian Federal Agency for Surveillance in the Field of Consumer Rights and Human Welfare website (in Russian) http://www.gsen.ru/hotline/
- 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
- Information Resources on Avian Influenza. USDA, AWIC Resource Series No. 33, October 2005 http://www.nal.usda.gov/awic/aflu/Avian%20Influenza.htm
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- 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
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- Opinion of the AHAW Panel related to animal health and welfare aspects of Avian Influenza http://www.efsa.eu.int/science/ahaw/ahaw_opinions/1145_en.html
- the World Bank - Avian Flu At A Glance http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20649058~menuPK:34480~pagePK:64257043~piPK:437376~theSitePK:4607,00.html

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Annex 1

Information for shipping international diagnostic specimens

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

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.

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To the **Avian Virology Laboratory, Veterinary Laboratories Agency, Weybridge, UK**

from outside the EU

Packaging requirements. All materials should be in leak-proof containers. At least two layers of packaging should be used and the inner layer treated lightly with disinfectant.

The outer packaging must be marked as follows:

> **ANIMAL PATHOGEN - PACKAGE ONLY TO BE OPENED AT THE AVIAN VIROLOGY SECTION, VLA, WEYBRIDGE. IMPORTATION AUTHORISED BY LICENCE NUMBER....*.....ISSUED UNDER THE IMPORTATION OF ANIMAL PATHOGENS ORDER.**
>
> *Insert one of the following LICENCE NUMBERS:-
> For Newcastle disease, **avian influenza** and other viruses: AHZ/2232/2002/5
> For tissues and other materials: AHZ/963A/99/2

Shipping address:

Avian Virology
VLA Weybridge, New Haw, Addlestone, Surrey KT15 3NB, United Kingdom

Packages should be sent by AIR MAIL or AIR FREIGHT. If sending by AIR FREIGHT it is essential that the **AIRWAY BILL NUMBER** is given to us by FAX, telephone, or Email before the arrival of the materials. Packages sent by air freight should be clearly marked: **CARE OF TRANSGLOBAL** to ensure rapid processing at the airport.

Notification of shipment: Please notify the VLA-Weybridge, Avian Virology Laboratory of the shipment details before dispatch.
Contact: Dr. I. H. Brown
Direct TEL: 01932 357 339; Direct FAX: 01932 357 239; Email: i.h.brown@vla.defra.gsi.gov.uk
Dr. D.J. Alexander
Direct TEL: 01932 357 466; Direct FAX: 01932 357 856; Email: d.j.alexander@vla.defra.gsi.gov.uk

Information for shipping international diagnostic specimens

To the **National Veterinary Services Laboratories (NVSL), Ames, Iowa, USA.**

Import permit: Packages containing diagnostic specimens or organisms (infectious materials) imported from foreign locations into the United States must be accompanied by a permit issued by the U.S. Department of Agriculture. The importation permit, with proper packaging and labelling, will expedite clearance of the package through U.S. Customs. One copy of the permit should be attached to the outside of the shipping container and a second copy placed just inside the lid of the outer shipping container. The importation permit can be obtained from the laboratory (NVSL, Ames, Iowa).

Packaging requirements: All materials should be in leak-proof containers and packaged to withstand breakage. All materials should be properly labelled.

Shipping address:

Director,
National Veterinary Services Laboratories
Diagnostic Virology Laboratory
1800 Dayton Avenue, Ames, Iowa 50010

Notification of shipment: Please notify the Diagnostic Virology Laboratory with shipping information (date of arrival, airline/courier, weigh bill number, etc.) as soon as it is available. Fax information to (515) 663-7348 or telephone (515) 663-7551.

Contact for Avian Influenza:
Dr. Beverly J Schmitt
Direct Tel +1 515/663-7532; Direct Fax +1 515/663-7348, Email; Beverly.J.Schmitt@usda.gov

Annex 2: Situation by Countries (as of 5/11/2005) – sorted by date of the latest information by country

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
Russia	24/07/05	H5N1	chickens, turkeys, ducks, geese	no	03/11/05	Web media	
Croatia	21/10/05	H5N1	Swans	no	31/10/05	FAO, Media websites, Declared to OIE	
Romania	22/10/05	H5N1	Ducks, swan, hen, heron	no	31/10/05	FAO, Media websites, 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	31/10/05	Government, FAO, media websites, Declared to OIE	
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					
		H3 (LP?)	Turkey	no	01/06/05	ProMED	The virus was discovered during a routine testing matrix
		H5 (LP?)	wild migratory birds		31/10/05	Government website	
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
	01/07/05	H5N2 (LP)	chickens	no	08/09/05	Government and Prefecture website, Declared to OIE	
		H5	chickens	no	31/10/05 (seropositive)	Government and Prefecture website	
		H4	ducks	no	31/10/05	Prefecture and media website	
Viet Nam	8/01/04	H5N1	Chicken, quail, duck, muscovy duck	yes	30/10/05	FAO[2)], Government, Web media	
China	06/02/04	H5N1	Virus isolation: chicken, duck, goose, quail, pigeon , pheasant, black swan; bar-headed geese, great black-headed gulls, brown-headed gulls, ruddy shelducks and great cormorants	no	26/10/05	Government, FAO, media websites, Declared to OIE	
Indonesia	06/02/04	H5N1	Chicken, duck and quail; pig (without clinical sign)	Yes	26/10/05	ProMED, media website	suspected in Bali
Germany		influenza A	Greylag Goose, mallards	no	25/10/05	Media websites	25 wild birds found dead near a lake
Sweden		H5N3 (LP)	mallard	no	21/10/05	ProMED, Media websites	
Turkey	14/10/05	H5N1	Turkey	no	21/10/05	Web media, Declared to OIE	1,700 of the 1,800 birds had died (94.4%)

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)

(continued)

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
Colombia		H9 (LP)			10/10/05	Government	
Kazakhstan	02/08/05	H5N1	geese, ducks	no	19/08/05	Web media	The quarantine in the affected area was lifted on 08/09/05
Finland		H13 (LP)	seagulls		mid-August 2005	ProMED	
Philippines	15/07/05	H9 (LP)	duck	no	07/07/05	Declared to OIE	Seropositive ducks were found through routine surveillance. No active infection.
Mexico	20/03/05	H5N2 (LP)	Chicken	no	July 2005	Web Media	
Pakistan	28/01/04	H7N3, H9N2 (LP)	layer; broiler	no	19/06/05	Government, FAO	
Italy		H5N2 (LP)	Turkey	no	15/04/05 (Lombardia)	Web Media, Local Government	
Cambodia	24/01/04	H5N1	Chicken, duck, goose, turkey, guinea fowl, wild bird	yes	April 05	Government, FAO	8 flocks found HI positive in Prey Veng province.
Democratic People's Republic of Korea	07/04/05	H7N7	Chicken	no	27/03/05	Government, media websites, Declared to OIE	Complete characterisation is awaited.
Hong Kong SAR	26/01/04	H5N1	Peregrine falcon; Grey heron, Chinese pond heron	no	10/01/05	Declared to OIE	Hong Kong SAR
South Africa		H6 (LP)	commercial poultry	no	25/03/04	ProMED	
	06/08/04	H5N2	Ostrich	no	early December (Eastern Cape)	Web Media	Final report submitted to OIE on 30/10/05
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
		H5N2 (LP[3)])	Duck	no	01/12/04 (surveillance)	Government, media websites, Declared to OIE	
Malaysia	19/08/04	H5N1	Chicken, fighting cock(?)	no	19/11/04	Government, media websites, Declared to OIE	Final report submitted to OIE on 03/01/05
Egypt		H10N7 (LP)	Wild duck	yes	18/04/04 (from survey sample)	ProMED	

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)

(continued)

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
Taiwan Province of China	20/01/04	H5N2 (LP)	Chicken, duck, pheasant	no	09/03/04	Meeting report, media website. Declared to OIE	
Lao PDR	27/01/04	H5N1	Chicken, duck and quail	no	13/02/04	Government, FAO	
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 2004 (Texas)	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	

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)