

## Update on the Avian Influenza situation (As of 19/06/2006) – Issue no. 40



Culling operation, Côte d'Ivoire  
Photo: N. de Normandie

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.

### Should wild birds now be considered a permanent reservoir of the virus?

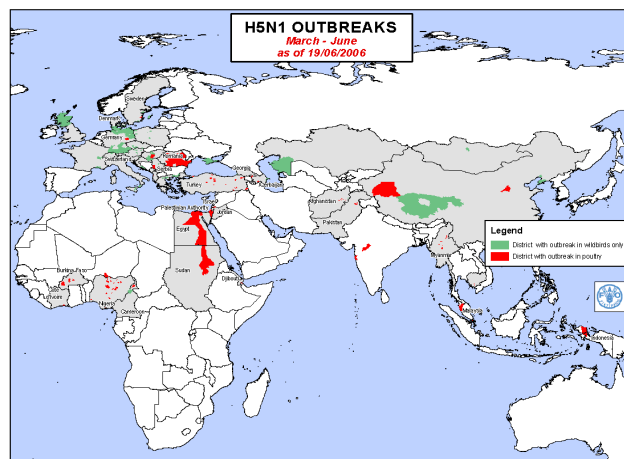
The animal species playing a role in the transmission, spread or introduction of the highly pathogenic avian influenza (HPAI) H5N1 virus are essentially domestic and wild birds. Although some fifty non-domestic bird species have proved susceptible to infection from the virus, it would appear from the epidemiological data currently available that, among the wild birds implicated in the transboundary introduction of the virus, aquatic birds play a major role.

In most European countries where the H5N1 virus has appeared, it has been with wild birds. In East and Southeast Asia, the disease was arguably spread by a combination of domestic and wild birds, while in Africa it appears that the poultry trade, both legal or informal, and traffic were responsible. No doubt more field (retrospective) work is required.

The FAO/OIE International Scientific Conference on Avian Influenza and Wild Birds, organized from 30-31 May could not resolve two of the key issues - the role of wild birds in the spread of HPAI to more than 50 countries on three continents, and whether wild birds should now be considered a permanent reservoir of the virus. The conference noted that the current outbreaks of H5N1 virus in eight African countries appeared to be poultry-related and chiefly based on trade in poultry for human consumption, including informal trade. It called for the establishment of a global tracking and monitoring facility involving all relevant institutions across the world, including scientific centres and farmers' organizations, hunters, bird watchers, and wetland and wildlife conservation societies. (excerpt from FAO Press Release – 13/04/06 & 01/06/06)

### 1. information on avian influenza

The third winter has passed since the emergence of the HPAI H5N1 epidemic. From the end of 2005 to the first quarter of 2006, the disease spread to European and African regions. It was said that the severe winter in Russia and Caucasus area pushed migratory birds south and westward. More than 30 countries/area reported cases in poultry during the first half of 2006, of which 23 reported this H5N1 infection for the first time. More than 209 million poultry have died or been culled since January 2004 worldwide. While the number of case reports has decreased in the European Union (EU), the



Areas HPAI H5N1 cases were officially reported  
red: domestic poultry, green: wild birds only

reports from Eastern Europe and Caucasus Area are increasing. As the disease moves, biosecurity at all levels is the key to protect birds from infection.

## Country situation

### - Africa -

**Burkina Faso:** The first outbreak of HPAI H5N1 in helmeted guinea fowl (*Numida meleagris*) farmed at Le Pharaon Camp, Gampéla Village, Saaba Department, Kadiogo Province which started around 1 March was reported to OIE on 3 April following the confirmation by the OIE/FAO Reference Laboratory in Italy. On 19 May, outbreaks in three further places were confirmed: sector 2 of Ouagadougou, the sector 20 of Bobo-Dioulassao (south-western trade centre), and Tenado, Boulkeimde Province in western Burkina Faso. Most of the affected birds belong to backyard poultry farmers. On 20 May, a "quarantine zone" was declared in Dioulasso Sore, prohibiting the entry and the exit of any poultry, poultry products into/from the zone. Municipal police have deployed five spot teams to control poultry transport. The control measures taken include: stamping out and disinfection of infected premises; movement control; checking wildlife reservoirs; and vaccination is being considered. In Dioulasso Sore, owners of traditional breeds will be compensated at a rate of 1.000 CFA Franc per chicken (1.5 euros) and 25 CFA Franc for each destroyed egg (0.03 euro). (24/06/06, source: FAO, Government, media news)

**Cameroon:** An HPAI H5N1 outbreak was confirmed on 11 March by the Institut Pasteur from samples taken from suspected cases found on 19 February in three households in Doualaré suburb, Maroua Town, Diamaré District, Northernmost Province, about 200m from an abattoir. Clinical signs observed were: nervous signs, stiff neck, greenish diarrhoea and lameness. Some chickens also held in the households were not clinically affected but culled as a part of control measures. The control measures taken include: stamping out at the infected premises and within a 3 km radius; disinfection of infected premises and material; epidemiological survey; ban on the movement of birds and poultry products and closure of all live bird markets and avian products markets in Maroua city; active surveillance of all poultry farms in Maroua city and nearby areas. H5N1 infection was also confirmed on 29 March in a wild duck found dead at the lake of Malapa, according to media. (29/05/06, source: FAO, Government, media news)

**Côte d'Ivoire:** On 25 April, suspicions of an HPAI H5N1 outbreak in poultry and a case in wild birds were reported in Abidjan District. The official notification was made on 3 May 2006 after confirmation by the OIE/FAO reference laboratory in Padova, Italy. As of 7 June, the disease has been confirmed in several communes of Abidjan district in the smallholder sector. The control measures taken include: market closure and stamping out at two bird markets in Abidjan with compensation; disinfection in bird markets and slaughter points; movement control inside the country; surveillance; start of public awareness and information campaign for consumers, poultry merchants and farmers; reinforcement of biosecurity measures around modern poultry farms. A 24 hour hotline has been established to report suspected cases, and ten mobile investigation teams consisting of a veterinarian, two technicians and laboratory staff will investigate any suspected cases. Vaccination of the breeding stock and layer chickens and of all poultry in Abidjan district is under preparation. FAO has provided PPE, diagnostic reagents, vaccines, vaccination tools and equipment for outbreak control as well as technical support for the country to manage the first phase of disease control. (19/06/06, source: FAO, Government, media news)

**Djibouti:** An HPAI outbreak was first suspected in Boulaos Commune, Djibouti City on 6 April 2006. Of eight samples taken from the second suspected cases in the same area, three (two chickens, one turkey) tested positive for H5N1 by the US Naval Medical Research Unit 3 (NAMRU-3), Cairo. Out of a flock of 22 poultry, four poultry died and the rest were culled. Djibouti has a total of 3,000 poultry in the country. The control measures taken include: quarantine; disinfection; stamping out within a 3 km radius of the infected households; movement control; zoning. FAO has provided PPEs, field surveillance training and has assisted in bio-secure culling and situation analysis. A 2-year-old girl from Arta District tested positive for H5N1. (09/06/06, source: Government, FAO, WHO, Media news)

**Egypt:** HPAI was first reported to OIE on 18 February in 7 of the 27 governorates. The disease has now spread to 20 governorates: Aswan, Alexandria, Luxor, Behera, Giza, Dakahlia, Sharkia, Gharbia, Fayoum, Cairo, Qualiubia, Menofia, Menia, Dumyat, Sohag, Quena, Kafr Elsheikh, Beni Suef, Assiut, Ismailia. The latest case was reported on a farm in Beni Mazar District, Al Minia Governorate, on 10 June. All fowl at the site were culled, all persons involved were tested and area around the site was sanitized. More than 30,000,000 birds have been culled. The control measures taken include: quarantine till confirmation; stamping out and disinfection; and movement control. Initially chickens, ducks, geese and turkeys were vaccinated with H5N1 inactivated vaccine. An H5N2 inactivated vaccine has been permitted and is now being used. To date, between 50 and 60 million combined doses of H5N1 and H5N2 inactivated vaccines have been imported into Egypt. While large commercial farms should cover the cost for the vaccines, village poultry are vaccinated free of charge. Pre-slaughter flock and post-processing testing schemes to ensure consumers receive healthy poultry have also been implemented. Due to the shortage of chicks, movement control was relaxed in May to issue a movement permit for healthy chicks. A 75-year-old woman from the Al Minia Governorate who died on 18 May tested positive for H5N1. Of the 14 human cases in Egypt, six have been fatal (42.8%). (06/06/06, source: Government, FAO, WHO, Media news)

**Niger:** An HPAI H5N1 outbreak in Magaria and Dan Bardé, Magaria District, Zinder Province was first reported to OIE on 28 February following the confirmation by the OIE/FAO Reference Laboratory in Italy on samples taken from ducks. The culling operation of approximately 15,000 poultry in Magaria within a 5 km radius of infected areas started at the end of March, together with a 15 km radius surveillance of all birds. Recently, media reported that the deaths of 530 poultry in Boko Maigao Village, Maradi Province in April from which H5N1 were confirmed. (02/06/06, source: Government, FAO, Media news)

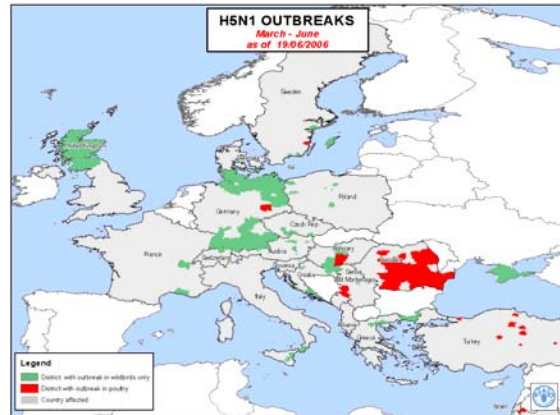
**Nigeria:** The first outbreak of HPAI H5N1 was confirmed on 8 February, 2006 in Jaji-Kaduna State of Nigeria. Since then the H5N1 strain of HPAI virus has been confirmed in 32 local government areas (LGAs) of 13 states of Nigeria including the Federal Capital Territory (FCT) by the National Veterinary Research Institute (NVRI) in Vom, with the support of the OIE/FAO Reference Laboratory for Avian Influenza in Padova, Italy. The NVRI in Vom is the central reference point for HPAI diagnosis in poultry in Nigeria. The capacity of this laboratory for HPAI diagnostics was improved through FAO/WHO-CDC/Nigerian government support. No human case of H5N1 infection has been confirmed to date. Control measures taken include: stamping out, disinfection and movement controls. Vaccination of poultry as an additional control tool has not been adopted by Nigeria, despite advice from FAO and other international organizations. So far, 760 farms/premises have been affected and a total of 704,107 poultry have either been culled or died from the disease. FAO is assisting Nigeria to put in place a comprehensive compensation strategy. (30/05/06, source: Government, FAO)

**Sudan:** The first cases in poultry flocks were reported in Gezira State on 25 March 2006 and in Khartoum State on 4 April. As of 30 May, 117,680 poultry in Gezira State and 1,849,494 poultry in Khartoum State have died/been culled. The control measures taken include: quarantine; stamping out and disinfection of infected premises; bio-security measures; and movement control between affected and non-affected states; vaccination will be carried out. A suspect case in River Nile State was found to be a false alarm after thorough investigations. Sudan introduced an import ban of all parent stocks, day-old chicks and hatching eggs in October 2005. Due to the shortage of chicks, the import ban on hatching eggs was lifted on 28 November 2005. The ban was reinstated on 18 February 2006, the day Egypt declared an outbreak of HPAI. (30/05/06, source: Government, FAO, Media news)

#### - EU countries -

In the EU area, **Austria\***, **Czech Republic\***, **Denmark**, **France**, **Germany**, **Greece\***, **Hungary**, **Italy\***, **Poland\***, **Slovakia\***, **Slovenia\***, **Sweden** and **United Kingdom\*** reported HPAI H5N1 since February 2006 (\*: wild birds only). During the winter, the EU

took harmonised control measures: import bans on live birds and potentially risky poultry products such as fresh poultry meat and untreated feathers from all countries and regions which have detected and confirmed outbreaks of avian influenza; mandatory surveys for avian influenza; step-up preventive measures; enhanced routine surveillance in wild birds; increased biosecurity and risk prevention measures such as preventing gatherings of birds at markets, shows and cultural events; prohibition of hunting with decoy birds; keeping poultry indoors if necessary; and preventive vaccination which was subject to stringent controls with the DIVA (Differentiating between Infected and Vaccinated Animals) strategy to distinguish between vaccinated birds and those with avian influenza. In case of a suspected or confirmed case in wild birds being found, a 3 km protection zone and a 10 km surveillance zone were declared together with provisions for surveillance and requirements for the containment of poultry indoors and enhanced biosecurity and movement restrictions in both zones.



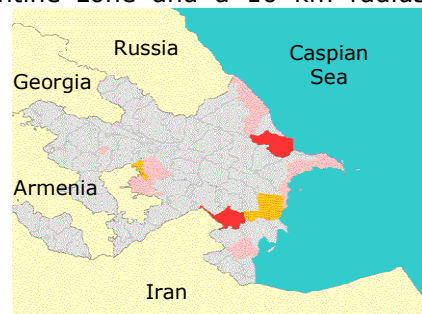
Areas HPAI H5N1 cases were officially reported  
red: domestic poultry, green: wild birds only

In addition, two risk areas around protection and surveillance zones were defined. The risk areas served as a buffer zone between the outbreaks and the non-affected parts of the member states. The latest confirmed outbreak was in Bacs-Kiskun, Hungary, in domestic geese on 9 June. Poultry within the vicinity including 2,300 geese at the farm concerned had already been culled and the farm was disinfected. Between February and 21 May, a total of 741 wild birds tested positive for H5N1, but the disease did not spread much to domestic poultry. H5N1 was reported in domestic birds in five countries (one per country only) and all five countries reported H5N1 in wild birds prior to the detection in domestic birds. (15/06/06, source: Governments, EU)  
(see map at: <http://ec.europa.eu/food/animal/diseases/adns/map/20060609/Europe.png>)

**- Other Europe and Caucasus -**

Of 13 countries which reported H5N1 in their territories, Bosnia and Herzegovina\* (2 February), Bulgaria\* (12 February), Croatia\* (24 March), Georgia\* (23 February) and Switzerland\* (30 March) reported cases only in wild birds.

**Albania:** HPAI H5N1 occurred on 16 February in chickens in Çuke, Sarande County, Vlore State and in backyard poultry (chickens, turkeys) in Aliko, Sarande County, Vlore State. Samples tested positive for H5 by the Veterinary Research Institute in Tirana on 23 February and were confirmed at VLA-Weybridge, UK on 7 March. Reported mortality in Çuke was 100%. The Veterinary Research Institute has been monitoring samples around intensive poultry (chicken) establishments. The control measures taken include: stamping out and disinfection; a 3 km radius quarantine zone and a 10 km radius surveillance zone around the outbreaks; control of wildlife reservoirs. Compensation was given to villagers at 700 leks (five euros) for a grown chicken and 400 leks (three euros) for a chick. Another outbreak was found in Ndroq, Peze-Helmes Village, Tirane on 9 March. In total, 2,538 poultry have died or been culled. (15/02/06, source: Government, EU)



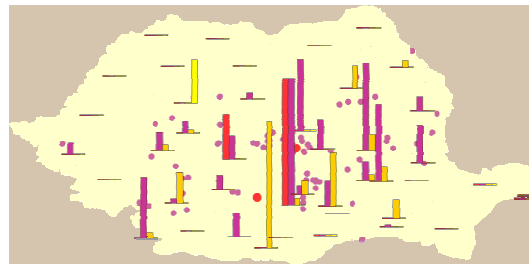
**H5N1 cases in Azerbaijan**  
red: poultry confirmed, pink: wild bird suspected, orange: human confirmed

**Azerbaijan:** In February, numerous swans and crows were found dead in Khachmas and Devechi Rayons; dead wild and domestic birds have also been found in Masalli, Bardeh, Ganjeh, Douche and around Baku, according to the media. On 10 February, a wild swan from Absheron Peninsula, Caspian Sea coast, tested

positive for H5N1. On 27 February, HPAI H5N1 outbreaks in poultry were reported in Ghiljazi, Khyzy Rayon and Samedabad, Biljasuvar Rayon. A total of 296,000 poultry were culled. A duck in Banovshalar, Agdam Rayon was found dead and H5 was confirmed on 20 March. The control measures taken include: stamping out; disinfection; quarantine; movement control. WHO confirmed eight human cases, of which five were fatal (62.5%). The locations of human cases were: Salyan Rayon - Sarvan and Daikyand settlements (between 23 February and 11 March), and Tarter Rayon (9 March). In February, where a massive die-off of swans had occurred in Salyan Rayon, the human cases were suspected of being involved in de-feathering dead wild swans. Poultry deaths have also been observed in the settlements in end-February/early March. The distribution of suspected/confirmed avian cases and confirmed human cases are indicated on the map. FAO has sent a disease control expert to assist Azerbaijan in disease management. (11/04/06, source: FAO, Government, WHO, media news)

**Croatia\*** reported the first case in a wild bird on 21 October 2005. Since then, more than 200 days have passed and 50 wild bird cases have been reported in the country. No infection in poultry. The latest case was a mute swan (*Cygnas olor*) found dead in Novi Zagreb on 24 March. The control measures taken include: setting up of a 3 km protection zone and a 10 km surveillance zone around the site where a case was found; identification of all holdings; implementation of on-farm biosecurity measures including disinfection at the entrance/exit of poultry housings; [in the 3 km protection zone] census of species and total number of poultry; periodic visits to all commercial holdings for clinical inspection of poultry; movement control of poultry products; active disease monitoring in wild bird populations; increasing disease awareness amongst owners, hunters and bird-watchers; keeping poultry indoors; obligatory reporting by the poultry owners to the veterinarians of any changes in health status of poultry; ban on poultry and other captive bird movement, gathering, transport through the protection zone except transit on major roads/railways and for direct slaughter; despatch ban on hatching eggs, poultry meat products and poultry litter/manure from the protection zone, and ban on hunting of wild birds; [in the 10 km surveillance zone] movement control of poultry and other captive birds and hatching eggs within the zone; ban of poultry and other captive birds' movement for the first 15 days following the establishment of the zone, poultry gathering ban; and hunting ban of wild birds. (12/04/06, source: Government)

**Romania:** The first outbreak was reported in October 2005, and since then cases were reported every month till 27 March. During the period of October 05 – April 06, all 46 outbreaks occurred in small backyard premises and no commercial farms were affected. The control measures taken were: stamping out, disinfection, movement control and surveillance, and vaccination was prohibited. The last movement control was lifted on 21 April in Constanta County. There was no outbreak reported for about two months till a new outbreak started on 4 May in Brasov County.



**Romania:** outbreaks per week. Bar chart - Red (the week of 4 May), Pink (the week of 13 May), Orange (the week of 18 May), Yellow (the week of 25 May). Dot - Red (farm), Pink (village)

On 16 May, five outbreaks in five different villages in Brasov County were officially reported. Within 16 days, 88 cases were reported in 15 counties out of the 41. As of 9 June, 19 counties were infected. Commercial farms are also infected. The control measures taken include: stamping out and disinfection; movement control including vehicles and people; screening; and hunting ban. The latest case was reported on 25 May in the north-western Craiesti Country. Informal trade is suspected to be a cause of the disease introduction. (14/06/06, source: FAO, Government)

**Russia:** Following the outbreak in Mostovskogo, Karasnodar Province, North Caucasus of Russian Federation about 495,000 birds died and 220,000 birds have been culled in the Caspian Sea area since 3 February. In March, H5N1 virus was found in wild ducks in

Kabardino-Balkar Republic, and dead swans tested positive for HPAI in Achhoj-Martanovskom District, Chechen Republic. Outbreaks in the Republic of Dagestan began with the death of wild swans and suspected to have spread by crows and seagulls scavenging carcasses. Deaths of more than 160 wild birds were reported. Cats were also tested positive for HPAI. Contamination of feed mills by wild birds was also suspected as one of the routes of infection at two major poultry farms. In Dagestan Province HPAI was confirmed in 14 districts (Karabudakhkentskogo, CHARodinskogo, Bujnaskogo, Babajurtovskogo, Derbentskogo, Hasavjurtovskogo, Tabasaranskogo, Tarumovskogo, Kizljarskogo, Kiziljurtovskogo, Geregebilskogo, Sulejman-Noaeuneiai, Kajakintskogo and Nogajskogo) and in five cities (Makhachkala, Buinaksk, Hasavjurt, Kaspijsk and Kizlyar), including three integrated poultry farms in Karabudakhkentskogo and Bujnaskogo districts. H5N1 was also confirmed at a poultry processing plant in Stavropol, Stavropol Province. Russia started mass vaccination of poultry on 10 March, 63.3 million vaccines had been delivered by 5 May. H5N1 infection was detected in Volgograd at the end of March, and again in early April. H5N1 antibodies were found in wild birds in Rostov Area in April during the routine monitoring. In May, HPAI infection was confirmed in Kochkovkiy District, Novosibirsk Province in a non-vaccinated flock and in Maksimovka Village, Tyukalinsky District, Omsk Province. HPAI Antibodies were found in Altaisky Province after deaths of nearly 170 poultry. The H5 antibodies detected in Krasnoyarsk Province in hunted wild ducks (*Scolopax gallinago*, *Anas platyrhynchos* and *Anas crecca*). (26/05/06, source: FAO, Government, media news)

**Turkey:** The last reported cases were in Bulgurlu koyu, Akdagmadeni subprovince, Yozgat Province on 31 March. During the 2005/6 winter, more than 2.5 million poultry were culled. As of 16 May 2006, all restrictions around outbreaks had been lifted. Restrictions on the holding of live bird markets and the hunting of wild birds are still in place. (16/05/06, source: FAO, Government, media news)

**Ukraine:** Ukraine lifted all movement restriction by March; however deaths of 32 chicken and ducks were detected in Semisotenka Village, Lenin district and Kamenka Village, Crimea on 14 March. Door-to-door inspections were conducted. The Ministry for Emergencies of Ukraine also organised the first inter-ministerial avian influenza simulation exercise in Malynychi Village, Khmelnytskyi Region. Grand cormorants (*Phalacrocorax carbo*, 50 dead and 6 sick) found on an island at Lake Sivash (Strilkove Village, Henichesk District, Kherson Region) on 20 April tested positive for H5N1. The latest outbreak was reported on 12 June when H5N1 was detected in backyard poultry in Peski Village, Burinsky District, Sumy Region. The birds were kept near flood-lands in the proximity of a river. The control measures taken include: stamping out and disinfection, and movement control. Quarantine posts have been established on the roads entering the village. The Ministry of Emergency has formed five teams for culling operation for about 7200 birds. Compensation for the birds is planned. (12/06/06, source: FAO, Government, media news)

**Serbia and Montenegro:** Mute swans (*Cygnus olor*) found dead (17 deaths out of 30) discovered on 28 February 2006 at Veliki Backi canal in Zapadno Backi, tested positive for H5, and in the river Drina, Severno Backi on 14 March. On 15 March, an outbreak in poultry was reported in Zlatiborski, in the area bordering Bosnia and Herzegovina, following a clinical survey. The control measures taken before positive cases were found include: confinement of poultry and other birds; hunting ban of water fowl; border movement control; import ban of live birds, hatching eggs, poultry products from AI infected or suspected countries; biosecurity measures; active disease monitoring programme in wild birds; establishment of National Center for Prevention and Control of Avian Influenza and 25 regional centers; establishment of 220 mobile veterinary teams; periodical veterinary visits to all poultry holdings; establishment of a call centre; establishment of border disinfection points; public awareness campaign. Control measures taken after the discovery of infection till 21 days after the final disinfection: setting up of a 3 km radius protection zone and a 10 km radius surveillance zone; identification of all holdings within the zones; ban on movement of live captive birds, poultry, hatching eggs, poultry products; periodical visits to all holdings and clinical inspection; enhancement of biosecurity measures including disinfection at the

entrances/exits of poultry holdings; ban on assembly of poultry and other captive birds including markets; ban on transport of live birds through the zones; hunting ban of all game species; ban on unprocessed litter/manure transport from poultry holdings. (12/06/06, source: FAO, Government, media news)

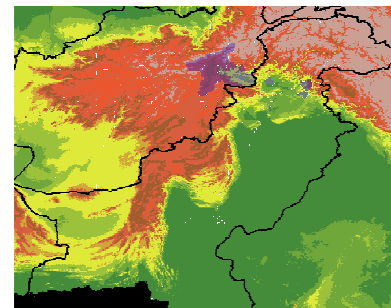
**- Near East -**

**Jordan, Israel and Palestine Authority:** Within one week, Israel and Jordan subsequently reported the outbreak of HPAI H5N1 in 18-24 March 2006. Outbreaks also started in the Palestine Authority area during the period. Kimron Veterinary Institute, Israel assisted in the diagnosis. The earliest reported case started on 16 March in Israel. The control measures taken in that area were based on stamping out and disinfection, movement control; surveillance; and in Jordan, breeders and layers were vaccinated with the H5N2 vaccine. Israel had a total of nine outbreaks, culled poultry in a 3 km radius (1,120,000 birds were culled), and set up a 10 km radius surveillance zone. PCR testing within 72 hours was compulsory before moving poultry within/from surveillance zone. In Jordan, 50,000 poultry were culled along the border as a precautionary measure, and 13,500 birds were also culled within a 3 km radius of the outbreak. (30/05/06, source: FAO, Government, media news)

**Iran and Iraq:** After cases in wild birds had been reported in mid-February in Rasht Province, Iran culled all 41,056 backyard and village poultry within a 2 km radius and compensation was given to farmers. Active surveillance of poultry farms was conducted and samples from domestic and wild birds were tested. In Iraq, outbreaks of avian influenza H5 were reported in backyard poultry (chickens, geese, turkeys and ducks) in two villages in Sulaimaniyah on 3 February 2006. Four days later, the disease was also reported in Missan in pigeons which were confirmed by HI test. Control measures taken in infected areas were: stamping out and disinfection; movement control; awareness campaign; ban on live bird markets and hunting; deployment of mobile teams for disease surveillance; vaccination in commercial broilers with the H9N2 vaccine (Suleimanya); purchase and slaughter of broilers in poultry slaughter plants (Erbil, Dohuk, Suleimanya and Storingthem); culling of over 200,000 backyard poultry near the Turkish borders; culling of about 270,000 backyard poultry and broilers (Suleimanya); and payment of compensation. By May, farmers started introducing day-old chickens to their farms. Informal movement of live poultry is a source of concern. (31/05/06, source: FAO, media news)

**- Asia -**

**Afghanistan and Pakistan:** HPAI was reported in Pakistan on 3 March and Afghanistan on 20 March. In Pakistan, the first case was recognised in 23 February at a breeder farm and a layer farm in Abbottabad and Charsada in North West Frontier Province and confirmed on 27 February. A total of 26,450 poultry were culled. Further outbreaks were confirmed also in Islamabad in April. In Afghanistan, the first case was recognised on 2 March in Jalalabad and confirmed on 15 March. As of 5 May, H5N1 has been found in Kabul, Kapisa, Logar, Nangarhar and Parwan Provinces and suspected in Laghman Province. Afghanistan had been importing chicks from Pakistan. Traffic control on major trade route within/between the two countries may be the key to stopping further outbreaks. Control measures taken were: [in Pakistan] stamping out and disinfection; biosecurity measures; sero-surveillance within a 15 km radius from the infected area; establishment of an emergency hot-line; [in Afghanistan] stamping out and disinfection; movement control. (29/05/06, source: FAO, Governments, media news)



H5N1 suspected/confirmed areas (purple) in Pakistan and Afghanistan with digital elevation (red: high land / green: low land)

**Cambodia:** After finding evidence of H5N1 virus circulation in Boeung Thom Lake Region in February, collected samples were all RT-PCR negative. However, out of 200 sera 63 tested positive for antibody. Sentinel ducks have been identified to test the sera every two weeks. A 3-year-old girl from Kampong Speu Province developed fever on 14 March

and died of H5N1 on 21 March. Following the death of the girl, samples from chickens and ducks in neighbouring areas were taken. Of 78 samples from ducks and 17 from chickens, 33 duck samples were sero-positive, and a duck and a chicken tested positive for H5N1 virus. H5N1 outbreaks also occurred in the week of 20 March in Kompot and Kompong Speu Provinces in village poultry. Stamping out and disinfection, movement control, and surveillance around the outbreak were conducted. A 12-year-old boy from Prey Veng Province developed symptoms on 29 March and died of H5N1 on 5 April. The epidemiological investigations conducted in the area revealed that out of 135 households 37 had observed mortality in poultry since 16 March (129/239 chickens, 128/73 layers, 14/100 ducks died). Samples were collected from 151 ducks and 70 ducks were seropositive but negative for H5N1 virus, and 28 chicken samples were all negative. In early April, high mortality in poultry was reported in Kampong Cham. During 17 to 21 February, 450 out of 1670 ducks, 135 out of 150 chickens and 15 out of 15 fighting cocks had died with typical clinical signs. H5N1 virus was identified from samples taken in neighbouring village, 235 ducks were culled. (13/04/06, source: FAO, Governments, WHO)

**China:** On 17 June 2006, an outbreak of H5N1 was reported in Changzi County, Shanxi Province, 5,000 poultry have died/been culled. Since the end of April, wild birds have been found dead in Liaoning, Qinghai and Tibet Provinces. As of 26 May, more than one thousand wild birds had died. According to WHO, the confirmed human cases in 2006 are now 11, of which 7 were fatal (63.6 %). There was no disease outbreak reported to OIE prior to these human cases in the same area. (19/06/06, source: FAO, Government, WHO)



Provinces with outbreaks in China 2006  
red: with confirmed human cases, yellow: with poultry cases, pink: human & poultry cases;  
blue: wild bird cases only

**Indonesia:** Further H5N1 infection in poultry was officially reported on 24 April, indicating that disease had spread into Papua province (Irian Jawa Barat) and Batam Island (Kepulauan Riau) near Singapore/Malaysia. According to WHO the total confirmed human cases in Indonesia in 2006 are now 33, of these, 27 were fatal (81.3%). Most of the cases had some history in contacting sick poultry. (16/06/06, source: FAO, Government, WHO)

**India:** HPAI H5N1 was first reported in Maharashtra Province on 20 February after confirmation was made by the High Security Animal Disease Laboratory, IVRI (ICAR), Bhopal. The infection was also reported from Gujarat and Madhya Prades Provinces both in backyard and commercial poultry. The latest case was found on 18 April, in Maharashtra Province, where more than 1,000,000 birds have been culled. The control measure taken include: stamping out and disinfection within a 10 km radius of infected premises; movement control of goods; compensation. (08/06/06, source: FAO, Governments)

**Mongolia:** A whooper swan tested positive for H5N1 Saikhan Soum, Bulgan Aimag. (31/05/06, source: Government)

**Malaysia:** Following the H5N1 outbreak reported on 23 February 2006 in Setapak City, Wilayah Persekutuan, HPAI infection was detected in Kinta, Kerian and Bota, Perak and Seberang Prai Utara, Pulau Pinang in chickens, ducks, geese and quail. Stamping out and disinfection; quarantine; movement control and surveillance were undertaken. Careless movement of live bird or infected materials via boat may be the route of introduction of virus. (29/05/06, source: FAO, Governments, media news)

**Myanmar:** HPAI outbreak was first reported on 13 March in Mandalay Province and in Sagoing Province on 16 March. Nearly 90 farms reported cases within four weeks, and more than 660,000 poultry from 545 farms have been culled in the two infected provinces. Control measures taken include: stamping out; movement control; ban of live market; surveillance. Depopulated farms will only be allowed to restock after livestock officials declare that they have been disease free for two months. (29/05/06, source: FAO, Governments, media news)

**Viet Nam:** The first and booster vaccination of the first round have both been completed in 19 provinces/cities, booster vaccination has been conducted in eight provinces/cities and remain to be done in other 16. A total of 117.9 million doses of vaccines have been used. Post-vaccination surveillance has been implemented. Except for the finding during the border control, there has been no new case reported since the last case which was detected in Cao Bang on 17 December 2005. (15/06/06, source: FAO, Governments, media news)

## 2. Actions taken

**The Epidemiology and Laboratory Training Workshops for FAO regional TCP projects on emergency assistance for early detection and prevention of HPAI for Eastern and Southern Africa, Western Africa, Northern Africa and Middle East** were held during March – June 2006 in Zagreb (Croatia), Lilongwe (Malawi), Ouagadougou (Burkina Faso) and Tunis (Tunisia); Budapest (Hungary), Rabat (Morocco), and Teheran (Iran).

**Research in wild birds** was conducted as a part of FAO's global strategy to fight HPAI at selected wetlands in West, East and North Africa and Caucasus. The survey has collected various samples and they have been tested by OFFLU laboratories world wide. The survey's interim report was presented at International Scientific Conference on Avian Influenza and Wild Birds. The abstract and presentations are available at:

[http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/conference/abstracts\\_en.html](http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/conference/abstracts_en.html)

### Recent Missions (19 May-19 July)

#### [Afghanistan]

- Dr G. Ferrari, FAO AGAH (Rome) Animal Health Officer GTFS/INT/907/ITA, Follow-up mission, 22-28/05/06
- Dr E. Dieleman (Netherlands) Epidemiologist OSRO/GLO/504/MUL 23/04-07/05/06; Ongoing

#### [Azerbaijan]

- Dr G. Kiani (Iran) Regional AI Project Coordinator for South Caucasus, Ongoing

#### [Bangladesh]

- Dr G. Finley (Canada) Laboratory expert OSRO/RAS/601/ASB, Ongoing

#### [Burkina Faso]

- Dr W. Amanfu, FAO AGAH (Rome) Animal Health Officer, Alive/WB AI mission, 10-11/05/06
- Dr A Le Menach FAO AGAH (Rome) Associate Professional Officer (EMPRES) TCP/RAF/3016E Epidemiology Training Workshop 13-19/05/06

#### [Cambodia]

- Dr L. Gleeson, FAORAP (Bangkok) AI coordination, 7-9/06/06
- Dr K. Machida (Japan) | Project Coordinator OSRO/RAS/602/JPN, 8-9/06/06
- Dr F. Mayen (Germany) Chief Technical Advisor GCP/CMB/027/GER, Ongoing

#### [China]

- Dr Guo Fusheng (China) Project Coordinator OSRO/INT/501/NET, Ongoing

#### [Chile]

- Dr J. Garcia (Mexico) Regional Project Coordinator, Ongoing

#### [Côte d'Ivoire]

- Dr A. Tripodi, FAO AGAH (Rome), International Project Coordinator, 4-17, 27/05-16/06/06
- Dr B. Seck (Mali) Project Coordinator TCP/RAF/3016, 18/05-10/06/06
- Dr. M. Carles (France) International AI expert, Ongoing
- Mr P. Campo FAO TCEO (Rome) Operations Officer, 29/05-9/06/06

#### [Djibouti]

- Dr W. Amanfu, FAO AGAH (Rome) Animal Health Officer, Alive/WB AI mission, 18-23/05/06
- Dr F. Njeumi, FAO AGAH (Rome) Animal Health Officer, AI emergency mission, 27/05-05/06/06

#### [Egypt]

- Dr D. Castellán (Canada) Epidemiologist 17/05-15/06/06
- Dr M. Shalaby (Egypt) Needs assessment, 30/04-11/06/06
- Dr H. Aidaros (Egypt) Regional Project Coordinator, TCP/RAB/3006E, Ongoing

#### [Hungary]

- Dr A. Rozstanlny, FAO SEUR (Hungary), Project Coordinator TCP/RER/3004, Ongoing
- Dr S. von Dobschuetz, FAO AGAH (Rome), Professional Officer (EMPRES) TCP/RER/3004E Laboratory workshop 22-26/05/06

#### [India]

- Dr M. Oberoi (India) Project Coordinator TCP/RAS/3008E, Ongoing

#### [Indonesia]

- Dr P. Roeder, FAO AGAH (Rome) Animal Health Officer (Virology) Experts Consultation of Avian Influenza Situation in Indonesia, Ongoing
- Dr L. Gleeson FAORAP (Bangkok) International Experts Consultation of Avian Influenza Situation in Indonesia, 14-20/05/06; 14-16/06/06; Ongoing
- Dr K. Machida (Japan) | Project Coordinator OSRO/RAS/602/JPN, 14-16/06/06
- Dr J. Mariner (USA) OSRO/RAS/505/USA (Chief Technical Advisor), Ongoing
- Dr C. Jost (USA) OSRO/RAS/505/USA (Chief Technical Advisor), Ongoing
- Dr L. Allen (USA) Senior Technical Coordinator, Ongoing
- Dr J. P. Weaver (UK/NZ) Senior Advisor GCP/INS/077/AUS, Ongoing
- Dr M. Young (Australia) Poultry disease control expert GCP/INS/603/AUL, Ongoing
- Mr A. Duqueza (Philippines) FAO TCDC expert (Project finance & administration officer), Ongoing
- Mr M. Pizzari, FAO TCEO (Rome), AI communication assistance, Ongoing

**[Kazakhstan]**

- Dr G. Ferrari, FAO AGAH (Rome) Animal Health Officer GTFIS/INT/907/ITA, Central Asia Regional Conference on Avian Influenza, 12-13/06/06
- Dr G. Kiani (Iran) Regional AI Project Coordinator for South Caucasus, Central Asia Regional Conference on Avian Influenza, 12-13/06/06
- Dr Alisafar Makenali (Iran) Regional Project Coordinator, Central Asia Regional Conference on Avian Influenza, 12-13/06/06
- Dr N. Scott (USA) Veterinarian, Wildlife specialist, Central Asia Regional Conference on Avian Influenza, 12-13/06/06
- Dr M. Sabrina, Economist, Central Asia Regional Conference on Avian Influenza, 12-13/06/06

**[Kenya]**

- Dr J. Litamoi (Kenya) Project Coordinator TCP/RAF/3017, Ongoing

**[Lao PDR]**

- Dr L. Gleeson FAORAP (Bangkok) AI coordination, 1-2/06/06
- Dr Lu Huaguang (China) Laboratory expert OSRO/RAS/505/USA, 22/05-04/06/06
- Dr R. Mondry (Germany) Chief Technical Advisor, GCP/LAO/017/GER, Ongoing
- Ms E. Bautista (Philippines) FAO TCDC expert (Project finance & administration officer), Ongoing

**[Lebanon]**

- Dr M. Kramer (Germany) Contingency planning OSRO/GLO/504/MUL, To commence in June

**[Mali]**

- Dr B. Seck (Mali) Project Coordinator TCP/RAF/3016, Ongoing
- Dr F. Poudevigne (France) Regional manager, OSRO/GLO/504/MUL, TBD

**[Malaysia]**

- Dr L. Gleeson FAORAP (Bangkok) AI coordination, 12-13/06/06
- Dr K. Machida (Japan) I Project Coordinator OSRO/RAS/602/JPN, 12-13/06/06

**[Malawi]**

- Dr Y. LeBrun (France), ECTAD Rapid Response Unit, WB AI assessment mission, in July

**[Mauritania]**

- Dr H. Aidaros (Egypt) Regional Project Coordinator, WHO/UNICEF/UNDP/FAO mission TCP/RAB/3006E

**[Morocco]**

- Dr A. El Idrissi FAO AGAH (Rome) Animal Health Officer, Regional laboratory training workshop TCP/RAB/3006, 15-19/05/06
- Ms A. Kamata, FAO AGAH (Rome) Animal Health Officer, Information system, To commence in the week of 26/06/06

**[Myanmar]**

- Dr W. Kalpravidh, FAO RAP (Bangkok), Project Coordinator OSRO/RAS/055/USA, end of June
- Dr H. Westbury (Australia) Laboratory expert, 05/05-06/06/06
- Dr T. Williams (UK) Epidemiologist OSRO/RAS/505/USA, Ongoing
- Dr K. Machida (Japan) I Project Coordinator OSRO/RAS/602/JPN, end of June
- Ms A. Kamata, FAO AGAH (Rome) Animal Health Officer, Information system, To commence in the week of 03/07/06

**[Nigeria]**

- Dr W. Amanfu, FAO AGAH (Rome) Animal Health Officer, ECOWAS/CEDEAO Réunion régionale ministérielle sur la grippe aviaire; Alive/WB AI mission, 12-17/05/06
- Dr T.U. Obi (Nigeria) Epidemiologist, Ongoing

**[Palestine Authority]**

- Dr A. Riviere, FAO AGPP (Rome) Compensation strategy mission, 03-14/06/06

**[Philippines]**

- Dr C. Benigno, FAORAP (Bangkok) Animal Health Officer, Inception Workshop on New Zealand project on AI, 29-30/05/06

**[Senegal]**

- Dr B. Seck (Mali) Regional Project Coordinator TCP/RAF/3016E, Laboratory Training Workshop 26-30/06/06
- Dr A. Riviere, FAO AGPP (Rome) Compensation strategy mission, 8-13/05/06

**[Serbia and Montenegro]**

- Dr K. DeBalogh, FAO AGAH (Rome) International Project Coordinator OSRO/GLO/504/MUL, AI simulation exercise, Ongoing
- Dr A. Riviere, FAO AGPP (Rome) Compensation strategy mission 03-07/07/06

**[Sudan]**

- Dr J. Jagne (Gambia/USA), ECTAD Rapid Response Unit, AI emergency mission, 25/04-25/05/06
- Dr J. Litamoi (Kenya) Project Coordinator TCP/RAF/3017 FAO/IBAR mission, 18/05-10/06/06
- Dr G MacGregor (USA) Need assessment mission, 9/29/05/06
- Dr W. White (USA) Technical Advisor, Ongoing

**[Thailand]**

- Dr L. Gleeson (Australia) Senior Technical Adviser, Ongoing
- Dr W. Kalpravidh, FAO RAP (Bangkok), laboratory workshop planning, Khon Kaen, 7-11/02/06
- Dr K. Machida (Japan) laboratory workshop planning, Khon Kaen, 7-11/02/06

**[Togo]**

- Dr L. Banipe (Cameroon) Laboratory training OSRO/GLO/504/MUL, 30/04-07/05/06

**[Tunisia]**

- Dr A Le Menach FAO AGAH (Rome) Associate Professional Officer (EMPRES) TCP/RAB/3006E Epidemiology Training Workshop 12-16/06/06

**[Turkey]**

- Dr J. Domenech, FAO AGAH (Rome) Chief, Animal Health Service, Gipe Aviaire: état d'alerte international/AGORA
- Dr N. Honhold (UK) Epidemiologist OSRO/GLO/504/MUL, Ongoing

**[Uganda]**

- Ms G. Lambiza, FAO TCEO (Rome) Project assessment OSRO/GLO/504/MUL, Ongoing

**[Ukraine]**

- Dr M. Rusvai (Hungary) 27/04-06/05/06

**[Viet Nam]**

- Dr J. Otte, FAO AGAL (Rome) Senior Officer Capacity-building workshops for the PPLPI 11-13/6/2006
- Dr P. Gerber, FAO AGAL (Rome) Minimising social and environmental externalities of restructuring, 1-10/06/06
- Dr L. Gleeson FAORAP (Bangkok) AI coordination, 5-6/06/06
- Dr J. Hinrichs, FAO AGAL (Rome) Associate Professional Officer, Minimising social and environmental externalities of restructuring, 20-29/05/06
- Dr O. Thieme, FAO AGAP (Rome) Minimising social and environmental externalities of restructuring/WB mission on Rehabilitation and AI, 21/05-10/06/06
- Mr K. Morteo, FAO AFIP (Rome) Project Manager, Information system, OSRO/RAS/505/USA, Ongoing
- Dr S. P. Morzarria, Chief Technical Advisor OSRO/RAS/601/ASB, APEC Ministerial Meeting on Avian and Pandemic Influenza 3-7/06/06
- Dr A. Forman (Australia) Avian influenza implementation plan assessment mission OSRO/RAS/505/USA:OSRO/GLO/504/MUL
- Dr J. Gilbert (Ireland/UK) Senior Technical Coordinator OSRO/RAS/505/USA, Ongoing

- Dr K. Inui (Japan) FAO Consultant (Laboratory Expert OSRO/VIE/501/UNJ: OSRO/RAS/505/USA), Ongoing
- Dr A. Cristalli (Italy) Project Coordinator (Vaccination Field Trial) OSRO/RAS/505/USA Ongoing
- Dr D. Pfeifer (UK) Tracing-back analysis workshop, 11-13/06/06
- [Zambia]**
- Dr W. Boehle, FAOSAFR (Harare) Animal Production and Health Officer, WB AI assessment mission, in July
- [Zimbabwe]**
- Dr R. Madekurozwa FAOSAFR (Harare) Avian influenza expert, Ongoing
- [Other]**
- Dr J. Domenech, FAO AGAH (Rome) Chief, Animal Health Service, Paris, Alive meeting, 29/05/06
- Dr J. Domenech, FAO AGAH (Rome) Chief, Animal Health Service, Senior Official Meeting on Avian and Human Pandemic Influenza, Vienna, 6-7/06/06
- Dr J. Lubroth, FAO AGAH (Rome) Senior Officer (EMPRES), Washington D.C., CMC system, Ongoing
- Dr W. Amanfu, FAO AGAH (Rome) Animal Health Officer, Alive preparation; discussion with CVOs, Paris, 26/05-01/06/06

### 3. Relevant articles, publications and websites

#### FAO

- Preparing for Highly Pathogenic Avian Influenza: A Manual for Countries at Risk  
[http://www.fao.org/docs/eims/upload/200354/HPAI\\_manual.pdf](http://www.fao.org/docs/eims/upload/200354/HPAI_manual.pdf)
- Avian Influenza Control and Eradication - FAO's Proposal for a Global Programme  
[http://www.fao.org/ag/againfo/subjects/documents/ai/Global\\_Programme\\_Jan06.pdf](http://www.fao.org/ag/againfo/subjects/documents/ai/Global_Programme_Jan06.pdf)
- A Manual for Countries at Risk [http://www.fao.org/docs/eims/upload/200354/HPAI\\_manual.pdf](http://www.fao.org/docs/eims/upload/200354/HPAI_manual.pdf)
- FAO-EMPRES (Emergency Prevention System against transboundary animal and plant pests and diseases) Avian Influenza website: <http://www.fao.org/AG/AGInfo/programmes/en/empres/home.asp>
- AGA Avian Influenza website: [http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special\\_avian.html](http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special_avian.html)

#### OIE

- 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](http://www.oie.int/eng/normes/mmanual/A_00037.htm)
- OIE Terrestrial Animal Health Code [Chapter 2.7.12.] Avian Influenza (May 2005):  
[http://www.oie.int/eng/normes/mcode/en\\_chapitre\\_2.7.12.htm](http://www.oie.int/eng/normes/mcode/en_chapitre_2.7.12.htm)

#### WHO

- The January 2006 version of WHO fact sheet on avian influenza is available at the following link:  
[http://www.who.int/csr/disease/avian\\_influenza/avianinfluenza\\_factsheetJan2006/en/index.html](http://www.who.int/csr/disease/avian_influenza/avianinfluenza_factsheetJan2006/en/index.html)
- WHO manual on animal influenza diagnosis and surveillance WHO/CDS/CSR/NCS/2002.5Rev.1  
<http://www.who.int/entity/csr/resources/publications/influenza/whocdscsrncs20025rev.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](http://www.who.int/entity/csr/disease/avian_influenza/guidelines/en/Avian%20Influenza.pdf)

#### Others

- Eurosurveillance-weekly <http://www.eurosurveillance.org/ew/index-02.asp>
- Biosecurity for the Birds (USDA Animal and Plant Health inspection Service, Veterinary Service)  
<http://www.aphis.usda.gov/vs/birdbiosecurity/>

#### Contact persons at FAO:

Juan Lubroth (FAO Headquarters – Rome)

[juan.lubroth@fao.org](mailto:juan.lubroth@fao.org)

Vincent Martin (FAO Headquarters – Rome)

[vincent.martin@fao.org](mailto:vincent.martin@fao.org)

Carolyn Benigno (FAO Regional Office for Asia and the Pacific (RAP) - Bangkok)

[carolyn.benigno@fao.org](mailto:carolyn.benigno@fao.org)

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

[Fernanda.Guerrieri@fao.org](mailto:Fernanda.Guerrieri@fao.org)

Cristina Amaral (Senior Operations Officer, TCEO, FAO Headquarters - Rome)

[Cristina.Amaral@fao.org](mailto:Cristina.Amaral@fao.org) for emergency fund raising and operational responsibilities

#### Supervision and Coordination:

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

[joseph.domenech@fao.org](mailto:joseph.domenech@fao.org)

## Annex 1

### Information for shipping international diagnostic specimens

To the **OIE/FAO and National Reference Laboratory for Newcastle disease and Virology Department. Istituto Zooprofilattico Sperimentale (IZS) delle Venezie**

**Types of specimen:** Specimens submitted may be virus isolates made in the submitting country or clinical specimen, such as tissues or swabs, collected from diseased birds. Venice Marco Polo Airport only accepts material classified as “diagnostic samples” (code UN3373).

**Packaging requirements:** All materials should be in leak-proof containers. Packaging should be composed of (1) a primary receptacle, (2) a secondary packaging and (3) a rigid outer packaging. Packaging of “diagnostic samples” (code UN3373) should comply with IATA PI650 standard. Packaging of “virus isolates” (code UN2814 for avian influenza virus and UN2900 for Newcastle virus) should comply with IATA PI602 standard. **Contact couriers to ascertain providing boxes complying with these requirements.**

**Documents to be accompanied for clearing:** Import permissions of the Italian Ministry of Health (formerly provided by the IZS) and **a signed proforma invoices** (original with signature. no photocopy accepted. The format will be formerly provided by the IZS) should be attached firmly to the box.

**Shipping: Air freight or couriers via Milan Malpensa Airport (recommended, airport code: MXP), Rome Fiumicino Airport (couriers only, airport code: FCO) or Venice Marco Polo Airport (airport code: VCE, for diagnostic samples only, no isolates – code UN3373). Arrange for shipments to arrive in Italian airports from Monday to Thursday only.**

IZS-Venezie hosts the secretariat of the Joint OIE/FAO worldwide scientific network for the control of avian influenza

#### Shipping Address:

Istituto Zooprofilattico Sperimentale delle Venezie  
Virology Department  
Viale dell'Universita' 10, 35020 Legnaro, Padova, Italy

**Notification of shipment:** Before shipping, please notify the following information to the IZS contact person.

- Embarkation date
- Airline name and the Flight number
- Date of arrival in Italy
- Name of the destination airport
- Airway bill number (the airway bill should be faxed as soon as possible to: Fax +39 049 8084360)
- Contact person to inform the result (name, facsimile number, e-mail address)

#### Contact people at the IZS:

##### To ship diagnostic samples and viral isolates:

Micaela Mandelli. E-mail [mmandelli@izsvenezie.it](mailto:mmandelli@izsvenezie.it)  
Maria Serena Beato E-mail: [msbeato@izsvenezie.it](mailto:msbeato@izsvenezie.it)

##### For reagents:

Micaela Mandelli. E-mail [mmandelli@izsvenezie.it](mailto:mmandelli@izsvenezie.it)  
William Dundon E-mail: [wdundon@izsvenezie.it](mailto:wdundon@izsvenezie.it)

##### Other contact persons:

Phone: 0039 049 8084371,  
Fax: 0039 049 8084360

Giovanni Cattoli E-mail: [gcattoli@izsvenezie.it](mailto:gcattoli@izsvenezie.it)  
Alessandro Cristalli E-mail: [acristalli@izsvenezie.it](mailto:acristalli@izsvenezie.it)

**Important:** Contact the IZS in order to discuss testing and testing materials before shipping. Notify the contact person with whom the IZS will keep in touch.

#### 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 : Dr. Beverly J Schmitt  
Direct Tel +1 515/663-7532; Direct Fax +1 515/663-7348, Email; [Beverly.J.Schmitt@usda.gov](mailto:Beverly.J.Schmitt@usda.gov)

### 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](mailto: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](mailto: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](mailto:accessions@csiro.au), the Duty Veterinarian on [dutyvet@csiro.au](mailto: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 :** You may also wish to discuss the testing required with Peter Daniels ([peter.daniels@csiro.au](mailto:peter.daniels@csiro.au)) or Paul Selleck ([paul.selleck@csiro.au](mailto: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, packed to IATA regulation and by a registered IATA packer. 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,  
VETERINARY LABORATORIES AGENCY, WEYBRIDGE, SURREY.**

and with one of the following IMPORT LICENCE NUMBERS:

For Newcastle disease: AHZ/2232/2002/5

For Avian Influenza, other viruses, Avian tissue, serum, faeces and eggs: **AHZ/2074C/2004/3**

**Shipping address:**

**RUTH MANVELL  
AVIAN VIROLOGY, VLA WEYBRIDGE  
NEW HAW, ADDLESTONE, SURREY KT15 3NB,  
UNITED KINGDOM**

A letter should accompany the parcel with as much history about the isolates as possible, to include species and age, area/country of isolation, any clinical history etc. If sending by **AIR FREIGHT** it is essential that the **AIRWAY BILL NUMBER** is given to us by FAX, telephone or e-mail before the arrival of the materials in order to facilitate an early delivery.

**Notification of shipment:** Please notify the VLA-Weybridge, Avian Virology Laboratory of the shipment details and the contact person to inform the result (name, facsimile number, e-mail address) before dispatch. Direct FAX : +44 (0)1932 357856 Direct Tel : +44 (0)1932 357 736 e-mail: [r.manvell@vla.defra.gsi.gov.uk](mailto:r.manvell@vla.defra.gsi.gov.uk)

If you wish to discuss a submission and options for support from the International Reference Laboratory for Avian Influenza and Newcastle Disease please contact:

Contact: Dr. I. H. Brown

Direct TEL: 01932 357 339; Direct FAX: 01932 357 239; Email: [i.h.brown@vla.defra.gsi.gov.uk](mailto:i.h.brown@vla.defra.gsi.gov.uk)

**Annex 2: Situation by Countries (as of 19/06/2006)**

HPAI H5N1 Area	date of first official reporting to the OIE	last report to the OIE	wild bird only	human case (from WHO website)	last known suspected and/or confirmed case in domestic poultry *	information source of the (*)	vaccinate poultry	post vaccination survey
<b>Africa</b>								
Nigeria	08/02/2006	02/04/2006			29/05/2006	Government		
Egypt	18/02/2006	23/03/2006		yes	05/06/2006	Government	yes	discussed
Niger	28/02/2006				02/06/2006	Media news	planned	
Cameroon	12/03/2006				21/02/2006			
Burkina Faso	04/04/2006	22/05/2006			18/05/2006	Government/Media	considered	
Sudan	19/04/2006	08/05/2006			08/05/2006	Government	planned	
Cote d'Ivoire	25/04/2006	15/05/2006			24/05/2006	Media news	planned	
Djibouti	27/05/2006			yes	06/04/2006		planned	
<b>EU</b>								
Austria	20/02/2006		yes					
Czech Republic	29/03/2006	29/05/2006	yes					
Denmark	15/03/2006	14/06/2006			01/06/2006	Government		
France	20/02/2006	27/04/2006			25/02/2006	Government	zoo	
Germany	16/02/2006	19/05/2006			05/04/2006	Government		
Greece	13/02/2006	27/02/2006	yes					
Hungary	01/03/2006	09/06/2006			04/06/2006	Government		
Italy	14/02/2006	02/02/2006	yes					
Poland	08/03/2006	07/05/2006	yes					
Slovakia	24/02/2006		yes					
Slovenia	12/02/2006	03/04/2006	yes					
Sweden	16/03/2006	20/03/2006			17/03/2006	Government		
United Kingdom	13/04/2006		yes					
<b>Other Europe/Caucasus</b>								
Albania	07/03/2006	23/03/2006			23/03/2006	Government		
Azerbaijan	15/02/2006	30/03/2006		yes	18/03/2006	Government		
Bosnia and Herzegovina	20/02/2006	22/03/2006	yes					
Bulgaria	12/02/2006		yes					
Croatia	21/10/2005	12/04/2006	yes					
Georgia	09/03/2006	27/03/2006	yes					
Kazakhstan	02/08/2005	23/09/2005			26/04/2006	Media news	yes	
Romania	07/10/2005	14/06/2006			06/06/2006	Government		
Russia	24/07/2005	16/02/2006			19/05/2006	Media news	yes	
Serbia and Montenegro	02/03/2006	14/03/2006			09/03/2006	Government		
Switzerland	27/02/2006	01/06/2006	yes					
Turkey	10/10/2005	17/05/2006		yes	31/03/2006	Government		
Ukraine	08/12/2005	31/05/2006			14/03/2006	Government/FAO		
<b>Middle East</b>								
Iran	15/02/2006	26/02/2006	yes					
Iraq	02/02/2006	07/02/2006		yes	29/03/2006	Media news	yes	
Israel	18/03/2006	04/04/2006			30/03/2006	Government		
Jordan	24/03/2006	16/04/2006			23/03/2006	Government	yes	
Palestine Authority	11/04/2006				March 2006	Media news		
<b>Asia</b>								
Afghanistan	20/03/2006				25/04/2006	Media news		
Cambodia	24/01/2004	13/04/2006		yes	22/03/2006	Government		
China	04/02/2004	19/06/2006		yes	19/06/2005	Government	yes	yes
(Hong Kong SAR)	26/01/2004	25/02/2006	yes				yes	
India	18/02/2006	08/03/2006			07/04/2006	Government		
Indonesia	02/02/2004	24/04/2006		yes	24/03/2006	Government	yes	
Japan	12/01/2004	12/07/2004						
Korea (Rep. of)	12/12/2003	21/09/2004						
Lao PDR	27/01/2004				February 2006	Media news		
Malaysia	19/08/2004	29/03/2006			21/03/2006	Government		
Mongolia	10/08/2005	30/05/2006	yes					
Myanmar	13/03/2006	26/04/2006			06/04/2006	Media news		
Pakistan	03/03/2006	04/04/2006			20/04/2006	Government	yes	
Thailand	23/01/2004	31/03/2006		yes	09/11/2005	Government		
Vietnam	08/01/2004	23/03/2006		yes	17/12/2005	Government	yes	yes