

FAO AIDEnews

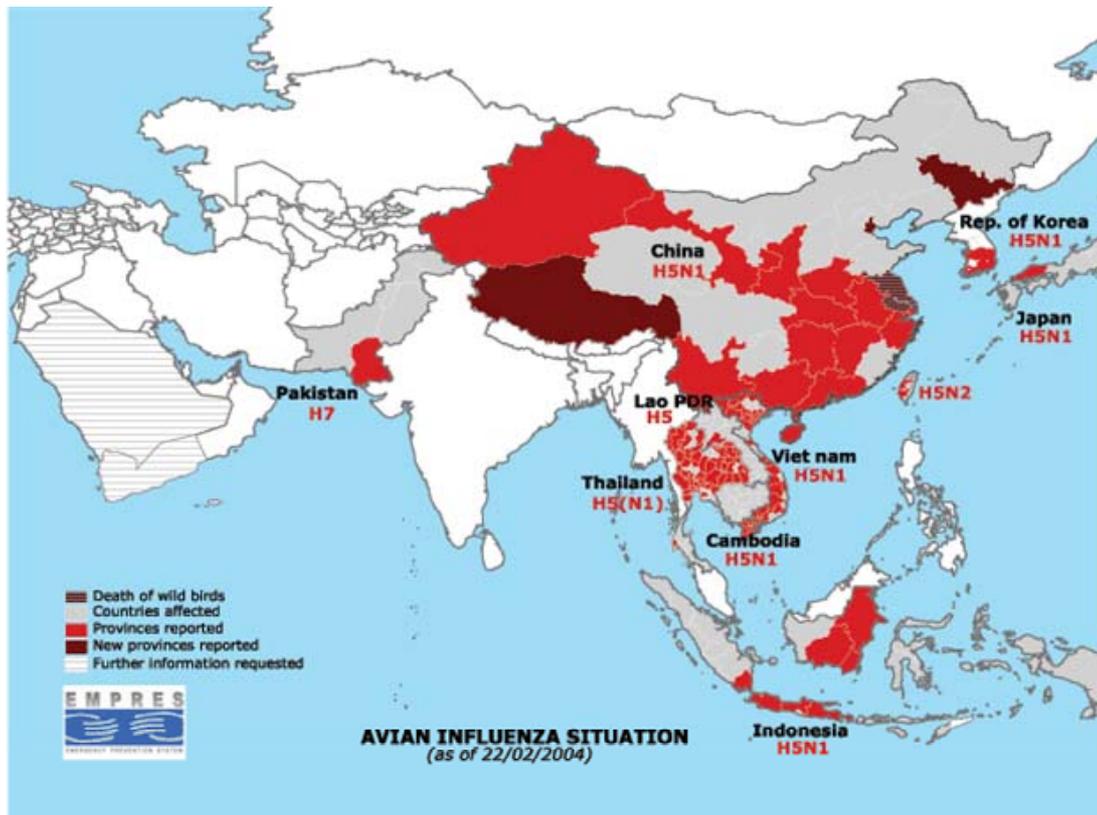
Avian Influenza Disease Emergency

Update on the Avian Influenza situation (As of 23/02/2004) – Issue no. 6

Annexes :

1. Control Measures reported by countries
2. Specimen Shipment to FAO/OIE Reference laboratories

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. Summary of the situation

Highly Pathogenic Avian Influenza (HPAI) confirmed:

As of 23/02/04, HPAI - H5N1 has been reported in Viet Nam, Thailand, Cambodia, Lao PDR, Japan, Republic of Korea, Indonesia and China. The number of countries affected remains the same since the last update.

- **China:** On 19/02/04, H5N1 was confirmed in Jilin province which is adjacent to the Democratic People's Republic of Korea. As of 23/02/04, China reported HP Avian Influenza in 16 provinces (48 confirmed, 1 suspected and 3 negative). As of 17/02/04, 144,440 birds infected, 127,648 died and 5,227,800 were culled. Vaccination has been undertaken on >9,634,700 birds so far. (Source: FAO and government website)

In Lhasa, Tibet province, 5,000 chickens died on 24/01/04. Samples were sent for testing, and H5N1 was confirmed. It is reported that this batch of chickens came from the Lanzhou city, Gansu Province where avian influenza case was suspected on 3/2/04. (source: gphin)

Isolation measures have been lifted in Dingdang Town, Long 'an County, Guangxi Zhuang Autonomous Region, where the China's first HPAI appeared on 23/01/04 and announced on 22/02/04 morning.

- **Thailand:** On 16/02/04, Nine more outbreaks were reported to be found. Within 10,300 samples of the second round testing, 10 provinces were found positive, of which 9 provinces (including Uttaradit and Chon Buri provinces) in the red (infected) areas and 1 province (Roi-Et) formally regarded as the yellow (investigating) areas. Chickens within 1 km radius of the outbreaks in red zone; 5 km radius in yellow zone are to be killed within 72 hours. Kasetsart University's animal hospital laboratory confirmed the presence of the H5N1 virus in a cat. Related comments on page 8.

Under investigation / rumours and suspicions / other information:

- **India:** The sudden death of about 300 chickens in Orissa's Bolangir district were observed within two days. Official Veterinary experts said the mass death was not caused by bird flu, but caused by chronic respiratory disease from practices of unhygienic conditions. Nevertheless, samples had been sent to the high security animal diseases laboratory at Bhopal. (18/02/04 – source: gphin)
- **Saudi Arabia:** 50 chickens found dead in a farm in the Rania province. No official information available. (11/02/04 – source: gphin)
- **Yemen:** A large number of chickens died in the El-Lehia county in El-Hadeeda province (under investigation). (11/02/04 – source: gphin)

Control strategies currently in implementation (see appendix):

- Countries that are planning/starting mass slaughter of poultry are: Thailand, Viet Nam, Indonesia, Pakistan, China, Taiwan Province of China
- Vaccination has been started/ordered in: China (Central & Southern areas), Taiwan province of China, Hong Kong SAR, Indonesia, and Pakistan.

2. Countries affected (as of 23/02/2004)

country	date declared to OIE	type	Animals affected	Human affected	additional information	
					info.	source ¹⁾
Republic of Korea	17/12/03	H5N1	layer, duck	no	No outbreaks since 05/02/04	Government
Viet Nam	8/01/04	H5N1	Broiler	yes	57 provinces affected	gphin ²⁾
Japan	12/01/04	H5N1	Layer, pet chicken	no	2 nd outbreak found	FAO; Government ³⁾
Taiwan province of China	20/01/04	H5N2	Layer, native chicken, duck, pheasant	no	low pathogenic	gphin
Thailand	23/01/04	H5 (N1)	Layer, stork	yes	14 infected areas in 9 province and 163 control areas in 40 provinces	gphin, FAO; government
Cambodia	24/01/04	H5N1	Layer, duck	suspected (ProMed 20.02.04)		FAO; government
Hong Kong SAR	26/01/04	H5N1	Peregrine falcon	no	wild birds	gphin
Lao, PDR	27/01/04	H5	layer	no	Samples sent for Pasteur Institute, Viet Nam to type N	FAO; government
Pakistan	28/01/04	H7	layer	no		
Indonesia	06/02/04	H5N1	Chicken, duck and quail	no	chicken have been dying since August	gphin
China	06/02/04	H5N1	duck, chicken and black swan	no	16 provinces affected	FAO; government
United States of America	11/02/04	H7	Chicken	no	Low pathogenic, under control, conducting studies	FAO-liaison office in Washington D.C.
		H5N2	Chicken	no	Low pathogenic, conducting studies	gphin, Texas Animal Health Commission website
Canada	19/02/04	H7	Chicken	no	testing	gphin

1) Official (OIE) and non official Information (ProMed, press agencies, FAO tracking systems...)

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

3) FAO;government: FAO representative in concurrence with Government sources

3. Situation in the neighbouring countries at risk

Country	update	Situation	Source
Myanmar	17/02/04	No outbreak Surveillance, Import ban, Awareness campaign	FAO Rep. Myanmar
Bangladesh	10/02/04	No outbreak reported	FAO Rep. Bangladesh
Bhutan	12/02/04	No outbreak reported	FAO Rep. Bhutan
Nepal	10/02/04	No outbreak reported Contingency Planning	FAO Rep. Nepal
Sri Lanka	Feb/04	No outbreak reported	Government

4. Actions taken – follow-up

- **FAO/OIE/WHO Technical Consultation on the Control of Avian Influenza 3 - 4 February 2004 Conclusions and recommendations**
Series of recommendations regarding HPAI control were made after the two-day meeting of experts. The full text, including: Current situation; Origins of the epidemic; Control and Eradication Strategies; Human Health issues including Food Safety; Rehabilitation; re-stocking, reorganisation of the sector and the recommendation is available on FAO website:
http://www.fao.org/newsroom/common/ecg/36647_en_experts.pdf
- **FAO/OIE Emergency Regional Meeting on Avian Influenza Control in Animals in Asia (26-28 February)** – a joint FAO/OIE meeting in collaboration with WHO and the Department of Livestock Development, Thailand, is to be held in Bangkok 26-28 February, 2004, to discuss on situation in the area; strategies for control programmes; regional, international coordination; impact assessments on social, economical and policy issues and, rehabilitation and restocking issues.
- **Technical Cooperation Programme (TCP) projects:**
FAO Technical Cooperation Projects (TCP) for Viet Nam, Cambodia, Lao PDR, Indonesia, China and Pakistan are operational. One Regional TCP is operational and three more are under preparation and will focus on emergency control of the disease, regional networking (laboratories and epidemiological units), epidemiological understanding of the crisis, and rehabilitation.
- **Missions carried out /planned:**
 - [Regional]
 - Dr. L. Gleeson (Australia), Australia Animal Health Laboratory, CSIRO, international expert in epidemiology and emergency management. special FAO consultant. Mission to Thailand, China, and Vietnam. Ongoing.
 - [Lao PDR]
 - Dr. C. Benigno, FAO Regional Office (Bangkok) Animal Health Officer. Mission to Lao PDR 29-1/02/2004
 - Dr. R. Webb (Australia), International expert in epidemiology and programme management. Mission to Lao PDR. Ongoing.
 - [Thailand]
 - Dr. D. Swayne (USA), Pathologist, Avian Diseases, Southeast Poultry Research Laboratory, USDA/Agricultural Research Service, OIE expert in collaboration with FAO, Mission to Thailand
 - [China]
 - Dr. L. Sims (Australia), international expert in disease management and Avian Influenza. Mission to China. To commence on the week of 30.02.04.

- Dr. H. Wagner, FAO Regional Office (Bangkok) Senior Animal Production and Health Officer. Mission to China. To commence on the week of 30.02.04.

[Cambodia]

- Dr. C. Benigno, FAO RAP (Bangkok) Animal Health Officer. Mission to Cambodia 9 – 14.02.2004
- Dr. D. Geale (New Zealand), Programme Coordinator for Exotic Disease Response, MAF, expert in epidemiology and emergency management. Mission to Cambodia. Ongoing.

[Indonesia]

- Dr. S. Morzaria, FAO Regional Office (Bangkok) Animal Health Officer. Mission to Indonesia 8 – 17.02.2004
- Dr. H. Westbury (Australia), international expert in epidemiology. Mission to Indonesia. Ongoing.

[Viet Nam]

- Dr. T. Forman (Australia), international expert in epidemiology and emergency management. Mission to Viet Nam. Ongoing.
- Dr. P. Blanc (France), international expert in project analysis. Mission to Viet Nam. Ongoing.
- Dr. G. Freeland (UK), international expert in project analysis. Mission to Viet Nam. To commence on the week of 01.03.04.

[Pakistan]

- Dr. P. Roeder, FAO EMPRES Animal Health Officer (Virology). Mission to Pakistan 21/01/2004 - 1/02/2004
- Dr. J. Lambers (Netherlands), international expert in poultry diseases and epidemiology. Mission to Pakistan. Ongoing.
- Dr. I. Claassen (Netherlands), international expert in vaccine production and regulatory aspects of disease control. Mission to Pakistan. Ongoing.

5. Avian Influenza Questions and Answers (full text available on the AGA Web site)

Q: What is the origin of the avian influenza crisis in Asia?

The origins are uncertain but from what is known of the general biology of the infection, and risk factors for its entry and spread, some areas stand out for further analysis. The presence of multiple virus types of high severity for poultry point at a supportive environment for disease agents to move in the poultry sector. Domestic poultry increasingly forms the basis for entry, spread and shift to high severity (virulence) of influenza viruses which in the past were mostly mild infections and confined to waterfowl. The dramatic growth in domestic poultry production is part of the explanation. It is estimated that the Eastern and South-Eastern parts of Asia share a poultry population which approaches 6 billion birds. Major sub-populations are found around the rapidly expanding megacities. More than half of the domestic bird population is in medium to large scale intensive poultry holdings....However, a sizeable part of the poultry population remains with the smallholder sector and an estimated total of 200 million farmers, each keeping about 15 birds, mainly comprising ducks, chicken, geese, turkeys and quails...the rapid spread of certain virus types implicates dissemination mechanisms within the poultry subsector itself, such as live poultry movements or transports involving infected materials. The risks from live bird markets appear the most obvious and have in the past been incriminated as a critical risk, and control point....Once high density industrial poultry areas become affected infection can explosively spread within the units, and the very high quantities of virus produced may be easily carried to other units, to humans, and into the environment....

More information is now available on:

http://www.fao.org/ag/aqainfo/subjects/en/health/diseases-cards/avian_qa.html#1

6. Related issues

- **Transboundary Animal Diseases: Assessment of socio-economic impacts and institutional responses** (Livestock policy discussion paper No.9, Otte, M.J.; Nugent, R.; McLeod, A.)

Transboundary diseases are a permanent threat for livestock keepers. They have major economic implications – both through the private and public costs of the outbreak, and through the costs of the measures taken at individual, collective and international levels in order to prevent or control infection and disease outbreaks.

The paper argues the economic rationale for public intervention, based on the public good nature of many control efforts. The need for public intervention frequently extends to the international level and calls for international and regional co-operation, without which in many cases control efforts can not be expected to be effective. However, in practice it can be more difficult to determine which is the appropriate level and type of control, or what is the proper mix between private and public and national and international action.

One problem is that the paucity of accurate data and information on the costs of both transboundary animal diseases and of control efforts make decisions difficult on the most cost-effective interventions. It can also be difficult to ensure the necessary collective action, particularly at the international level, as involved parties and countries may have quite different incentives to participate in control efforts. Closely related to this is the question of the proper sharing of costs of controlling transboundary animal diseases.

The recent years have seen both progress and retreat. The technical ability to control old problems has greatly advanced and improved information exchange has facilitated reaction to the emergence of transboundary animal diseases. At the same time, however, increased movements of people and goods have facilitated the spreading of many transboundary animal diseases, while a number of new forms of diseases have appeared – the emergence and spreading of BSE in Europe and SARS in East Asia being notable examples.

These developments strengthen the case for collective action at the regional and international level. Some of the challenges are the following:

- Improve the economic evaluation of the costs of transboundary animal diseases and of various control efforts. This will help in choosing technically effective and cost-effective solutions and in devising appropriate mechanisms for cost-sharing and funding of preventive and remedial action. In many instances, new ways of managing the economic impacts (e.g. through insurance schemes) may be more cost effective than controlling the transboundary animal disease directly. Strengthen international and regional co-operation; the public good nature of prevention and control of transboundary animal diseases calls for collectively agreed, funded and managed responses.
- Enhance the capacity of developing countries both for national action and for participation in collective efforts; not all countries can by themselves face the cost of prevention and reaction to transboundary animal diseases. In particular, a clear need exists to help developing countries meet the requirements of the SPS Agreement of WTO in order to fully participate in the international trading system. Particular attention to their needs in terms of assistance is required.

The full text is now available at:

http://www.fao.org/ag/againfo/resources/en/publications/sector_discuss/PP_Nr9_Final.pdf

- **Impact of Avian influenza on livestock producers : Small Holders (continued from the previous issue)** (source: Production economics affected - small to medium-scale poultry producers in South Asia/ Emmanuelle Guerne-Bleich, Animal Production Officer, AGAP)

The table shows traditional sector production system covers 56% of the poultry sector in China, and again, this traditional-backyard type of production sector that is the most badly affected.

Table. Share of output by type of production system in China, 1996.

1997 Region	Pigs			Poultry		
	Traditional	Specialized	Industrial	Traditional	Specialized	Industrial
North	79.2	11.8	9.0	63.4	27.1	9.5
Northeast	70.4	20.0	9.7	61.8	36.1	2.1
East	73.6	16.2	10.2	49.3	27.3	23.4
Central	82.3	8.1	9.6	58.5	30.9	10.6
South	76.6	12.6	10.7	47.7	35.5	16.8
Southwest	89.0	9.7	1.3	56.6	38.6	4.8
Plateau	92.5	2.2	5.2	92.2	7.8	0.0
Northwest	86.0	7.3	6.7	68.8	22.5	8.7
China	80.9	11.6	7.6	56.6	31.6	11.7

Source: Own calculations based on data from 1996 Agricultural Census and CCAP.

To alleviate the economic and social impact of the avian influenza epidemic on the most vulnerable sectors of society will require a substantive, well prepared and targeted programme of rehabilitation and assistance. Under the mandate of FAO and in the frame of a Regional TCP prepared by AGA, a prerequisite to implementing an effective rehabilitation programme, both in the immediate and longer-term, will be a thorough understanding of the social and economic impact the disease has had on the different poultry production systems in region.

The objectives of this component of the Regional TCP are to analyze and understand the social and economic impact of the avian influenza outbreak on poultry production and producers livelihoods. The results will form a rational basis for comprehensive and meaningful rehabilitation programmes being development by the national authorities with the assistance of FAO.

- **Wild birds should not be killed to fight bird flu** (FAO press release 18/02/04)

Strict controls and surveillance needed to keep wild birds away from poultry 18/02/2004, FAO Rome -- Eliminating wild birds is not an appropriate measure to control the spread of the avian influenza virus. Killing wild birds will not help to prevent future bird flu outbreaks. Prevention needs to be based on a control and surveillance system to ensure that any contact between wild birds and poultry is avoided or at least monitored. For example, commercial poultry owners need to ensure that poultry pens and poultry drinking water supplies cannot be contaminated by migrating birds...A good strategy and that the destruction of wild birds is unnecessary.

FAO called upon bird owners to be vigilant. Owners of backyard poultry or free-range poultry should be extra cautious. Bird owners should:

- erect pens to keep domesticated poultry away from wild birds;
- keep domestic waterfowl separate from poultry where the waterfowl have access to the same water as wild waterbirds;
- be alert to the signs of avian influenza in birds and quickly report any suspicions to the veterinary authorities.

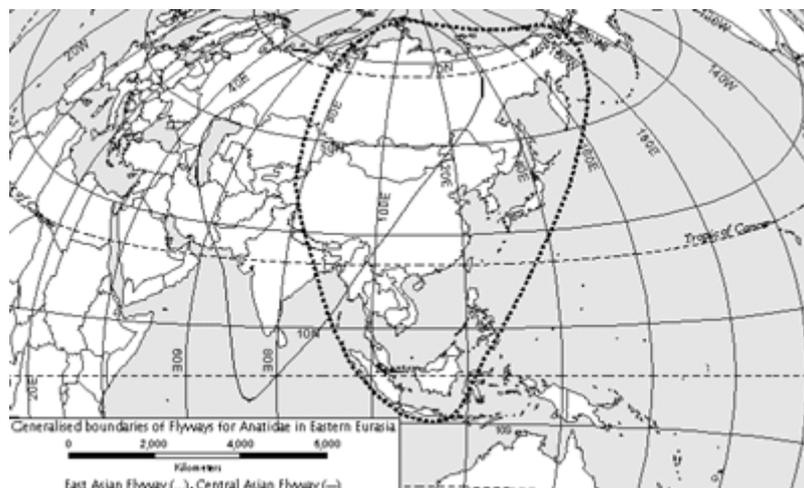
Commercial poultry producers should apply good biosecurity measures including:

- maintaining a high level of security regarding all traffic coming onto poultry farms and a very high standard of hygiene to minimise spread of the disease;
- bird proofing of poultry sheds to prevent contact between wild birds, especially wild waterbirds, and poultry;
- keeping records and reporting sudden decreases in production;
- ensuring that all sick or dead birds are checked by an experienced veterinarian and that samples are submitted to the regional laboratory.

The full text is available at:

<http://www.fao.org/newsroom/en/news/2004/37427/index.html>

- **Migration route of the waterfowl:** Migration is the way of life for the waterfowls. The coverage is wide, from the arctic area to the equator and further south. Eliminating wild birds is not an appropriate measure to control the spread of the avian influenza virus, and it reduces genetic resources for the future.



Thanks to [the Wetland International](http://www.wetlands.org) for the map.

<http://www.wetlands.org/IWC/awc/waterbirdstrategy/>

<http://www.jawgp.org/anet/aaa1999/aaaeint.htm>

- **Virus or Genome detection:** Avian Influenza type H5 virus or its genome (genetic components) have also been detected in carnivores of the Felidae family: Leopard (*Panthera spp*), white tiger (*Panthera tigris*), and several domestic cats (*Felis catus*). However, the relationship between the detection of the virus or its genome and associated disease of these species is yet to be determined in terms of pathogenicity and significance for human health and transmission potential between feline-to-feline or feline-to-human. FAO will be reviewing the findings in collaboration with clinicians and researchers in Asia. (Source: gphin)
- **Serological Analysis:** Sera from the following species have been found positive to avian influenza H5: chicken (*Gallus gallus* or *Gallus domesticus* and associated breeds, varieties, and subspecies), turkeys (*Meleagris gallopavo*), numerous ducks and geese (of the Anatidae family); quail (*Coturnix coturnix japonica*), guinea fowl (*Agelastes meleagrides*), peacock (*Alpha pavonis*), pigeon (*Columba spp.*), ostrich (*Struthio camelus*), open bill ibis (*Anastomus oscitans*) and numerous perching birds of the Pycnonotidae family. The relationship of serological findings, isolation and potential for disease transmission, needs to put into context with epidemiological investigations to be carried out. Aspects of virus introduction by water fowl (geese and ducks) have been well described in the scientific literature. (Source: the Department of Livestock Development –Thailand)
- **Information for shipping international diagnostic specimens to the International Reference Laboratories** (see Appendix 2)

7. Resources available

Relevant articles/publications:

- The use of vaccination as an option for the control of Avian Influenza (I. Capua, S Marango) – 71st OIE General Session (May 2003).
- FAO/EMPRES Manual on procedure for disease eradication by stamping out (Available at: <http://www.fao.org//DOCREP/004/Y0660E/Y0660E00.HTM>)
- FAO AIDE News (Vol. 1, 2, 3 and 4) (Available at: <http://www.fao.org/ag/AGA/AGAH/EMPRES/index.asp>)
- Avian influenza: update on European response (Available at: <http://www.eurosurveillance.org/ew/2004/040205.asp#1>)

Relevant Web sites:

FAO Avian Influenza fact sheet:

<http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/avian.html>

OIE web site:

http://www.oie.int/eng/en_index.htm

OIE Technical Disease Cards:

http://www.oie.int/eng/maladies/fiches/a_A150.htm

WHO Avian influenza frequently asked questions web site:

http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/

WHO Advice to international travellers:

http://www.who.int/csr/don/2004_01_26/en/

EU Public Health web site:

http://europa.eu.int/comm/health/ph_threats/com/Influenza/influenza_en.htm

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Supervision and Coordination

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Appendix 1

- Control strategies currently in implementation -

Source of information: OIE official reports, press releases, media reports, gphin.

country	Control measures	
Republic of Korea	- Stamping out - Movement control - No vaccination - Surveillance	- Import ban - Quarantine - Screening - Disinfection - Zoning
Viet Nam	- Modified stamping out - Movement control	- Quarantine - Screening - Control of wildlife reservoirs
Japan	- stamping out - Movement control - No vaccination - Surveillance - vaccine bank planed	- Import ban - Quarantine - Disinfection - Screening
Taiwan province of China	- Stamping out	- Import ban
Thailand	- Stamping out - Movement control - No Vaccination - Daily reporting	- Quarantine - Screening - Zoning - Compensation planned - 21-day surveillance programs
Cambodia	- Stamping out - Movement control - Measure taken - Disinfection/Treatment	- Disinfection - Quarantine
Hong Kong, SAR	- Vaccination - Surveillance	- Import ban
China	- Stamping out - Vaccination - Movement control - Vehicle check points	- Import ban - Disinfection - Market control - Quarantine - compensation planned - Vehicle check at main cities - Wild bird watch / disinfection
Lao, PDR	- Stamping out - Movement control - Surveillance	- Import ban - Quarantine
Pakistan	- Stamping out - Movement control - Vaccination	- Import ban - Quarantine - Zoning - Control wild reservoirs
Indonesia	- Modified stamping out - Movement control - vaccination - surveillance	- Quarantine - Zoning - compensation planned
United States of America	- Stamping out - Movement control - Surveillance	- Import ban - Quarantine

Appendix 2**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

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