

# **AVIAN INFLUENZA**

# **CONTINGENCY PLAN -**

# **MAURITIUS**



**TERRE ROUGE ESTUARY**

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**Compiled at the Animal Health Laboratory**

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**Division of Veterinary Services, Reduit, Mauritius**

## 1. INTRODUCTION

There is a potential risk that HPAI subtype H5N1 might be carried by wild birds from South East Asia region along migratory flyways to Africa and Europe. Recent outbreak in Nigeria , Niger and new countries in Asia namely India and Pakistan have also declared outbreaks of HPAI. The disease seems to be now spreading in multidirectional sites in different continents. The complex overlapping of major flyways and the lack of information on migratory species involved in AI disease spread make simple association of wild bird flyways with outbreaks of AI difficult.

In Mauritius, migratory birds start coming at the Terre Rouge Estuary as from the month of September to April peaking between January and February with An average total head count of some 1200-1500. It also refers to the most probable time when the risk of contagion is most likely to occur.

The OIE has developed guidelines for the progressive control of HPAI around the world and Mauritius is in constant touch with OIE as regards to latest developments. Mauritius has therefore adopted a strategy in line with OIE recommendations for the prevention and control of the disease. Consequently, a National Committee comprising of different Ministries and major stakeholders both from the private and public sectors have been set up to monitor and make recommendations. This Committee has been meeting regularly and has already formulated a series of recommendations outlined in the Contingency Plan prepared by the committee.

The objectives of the Contingency Plan are:

- ★ To articulate on the procedures to be followed in case of a suspected and/or confirmed outbreak of Avian Influenza.
- ★ To ensure that there is necessary personnel to assist the Division of Veterinary Services with administration and procurement of necessary material and equipment.
- ★ To constantly update and inform the population in order to avoid nationwide panic and to a on compensation modalities in the event of mass destruction of affected poultry.

An elaborate plan should basically comprise of three components namely:-

- A Surveillance
- B Communication strategy
- C The plan

## 2. IMPACT OF AN OUTBREAK OF HPAI

- ★ Direct effect on poultry production in Mauritius.
- ★ Negative effect on Tourism

- \* Direct effect on exports, trade bans etc...
- \* Feed industries and retail outlets
- \* Employment
- \* Public health implications.

## **2.1 Risk of spreading disease**

- \* The disease is highly contagious as the virus rapidly multiplies in susceptible flocks; virus is excreted in the air and in the faeces.
- \* Direct spread is through contact with live infected birds, infected premises, infected products, contaminated equipment, or by movement of personnel, vehicles, etc.
- \* Virus can survive in/on carcasses, feathers, meat, on eggs, offal, and faeces/litter.
- \* Wet markets/backyard farming is important potential source for the rapid dissemination of HPAI diseases.

## **2.2 Possible routes of entry of contagion into Mauritius**

- Importation of live poultry and pet birds
- Importation of poultry products
- Smuggling of birds or products
- Returning passengers (Tourists and Mauritians) who have been in direct/indirect contact with infected chickens/premises overseas
- Migratory birds especially waterfowl and water birds at the Terre Rouge Estuary
- Ship entering Mauritian territorial waters will be subjected to strict veterinary control

## **2.3 Early detection of disease**

Early detection, reporting and diagnosis of disease together with the swift imposition of effective eradication and movement controls are essential in an attempt to contain an outbreak already in place. However, a continued awareness campaign should be maintained at all levels especially at the level of back yard farmers.

## **3. REPORT OF DISEASE**

Where any stock has become infected with a disease, or is suspected to have become infected with a disease, the owner of the stock shall report the fact to the Veterinary Services or to the Officer in Charge of the nearest Police Station who shall notify the Veterinary Services. In case of a Private Veterinarian who suspects pathogenic Influenza, the PVO should be immediately be notified. In the case of a Government Veterinary Officer who suspects or diagnoses Avian Influenza, the case must be reported to the Principal Veterinary Officer or his representative immediately.

### **3.1 Collection of samples**

Collection of samples will be deemed necessary when abnormal mortality in poultry (all species) above 10% associated with signs of respiratory distress is reported. A team comprising of Veterinary Officers and trained laboratory personnel will proceed with utmost urgency to the site of suspected outbreak for collection of relevant samples.

Samples will include the following:

- ★ Dead birds:
  - Pooled trachea, lung and intestinal samples and cloacal swabs.
- ★ ‘Healthy’ birds:
  - Cloacal and tracheal swabs
  - At least 10 blood samples from the flock
  - (Cloacal swabs from at least 1-5% depending upon the flock size. Ensure that at least one gram of faeces on swab; transport swabs in virus transport medium.
- ★ The blood samples and organs will be packed aseptically and sealed in sterile plastic tubes, bags or sample bottles and brought to the Animal Health Laboratory for diagnosis and confirmation of the disease.
- ★ All samples to be sent on ice (4°C).
- ★ Swabs should be placed in 2 to 5 ml sterile PBS.

### **3.2 Animal Health Laboratory testing**

The testing facilities presently available include the rapid antigen detection method, Elisa tests, and Haemagglutination Inhibition and Immunodiffusion testings. Processed samples from suspected poultry will also be sent to the nearest reference laboratory for confirmation and further

investigations as may be required. A standing agreement and a master permit for the rapid despatch of organs /blood and relevant samples to a Reference laboratory has been made.

It is proposed that besides current diagnostic facilities available at the Division of Veterinary Services, the Virology Section of the Animal Health Laboratory be reinforced with more advanced techniques such as RT- PCR. This should be given top priority.

#### **4 DISINFECTION**

After handling a suspect infected or confirmed infected animal, the officer /technician must immediately disinfect his/her hands, shoes, glasses, hat and any clothing that he/she wore during the preceding inspections on that farm/premises and any other thing that might be contaminated. The farm personnel on infected/suspect premises will be under the observation by the Health Services.

### **5. FIELD ACTIONS FOR CONFIRMED OUTBREAK**

#### **5.1 Strategy for disease control**

Eradication/control procedures are more likely to be successful if the main conditions are met, i.e early identification of outbreak and the rapid implementation of control/stamping measures and total participation and collaboration of all stakeholders.

#### **\* Compulsory measures:**

Under the control and guidance of veterinary services in collaboration with the crisis committee the following will be applied-

- ★ Immediate quarantine and movement controls of affected farms and premises.
- ★ Reinforcement of bio security measures
- ★ Zoning of restricted (infected) area/s (road blocks), control (surveillance) area/s and disease free areas
- ★ Immediate stamping out and disposal of infected and in-contact birds and litter etc. to terminate the multiplication of virus (Euthanasia).
- ★ Decontamination
- ★ Surveillance and epidemiological investigations.
- ★ Testing for absence of disease before restocking.

## 5.2 Disease Control Centre

A Disease Control Centre has to be established to co-ordinate the necessary actions to be taken during the control of the disease outbreak. The disease control centre will comprise of coordinators from the Ministry of Agriculture, Ministry of Health, Police Department, Ministry of Environment and the Ministry for Local Government and representatives from the private sector. The main responsibility of the Disease Control Centre will be to establish effective liaison with each department in case of outbreaks and optimise human resource and to appraise the authorities of the current situation. The crisis committee will identify persons to assign specific duties during the monitoring process. The crisis committee will be in constant touch with the PVO who will be authorised to release information via the parent ministry. The disease control centre will be located in Reduit within the precinct of the Office of the PVO. In case of outbreak, a technical team will be constituted to stamp out the infection in the least possible delay. The technical team will be located at the site of action and will be monitoring the progress of the stamping out process to the Crisis Committee at the Disease Control Centre. A hotline service will be needed for better and efficient liaison.

### 5.2.1 Composition of the Crisis Committee

No	Name	Organisation	Phone Numbers		
			Residence	Office	Mobile
1	Dr. I L Prayag	PVO, DVS	483 6856	466 0945	256 0915
2	Dr. L L Beeharry	Advisor	465 6638	466 7216	729 6730
3	Lt. Col. Oodunt	DCO, SMF		601 1300	
4		SP Traffic		208 1212	
5	Mr. Kissondoyal	Chief Inspector		210 5312	257 0702
6	Dr. R Munbodh	PMO, Health		201 3393	250 2053
7	Dr. I Mamode	Private Sector	242 1978	433 4225	727 2557
8	Mr. A Goolaub	PEO, AREU		433 7544	779 5252

### 5.2.2 Composition of the Technical Team

No.	Name	Organisation	Phone numbers		
			Residence	Office	Mobile
1	Dr. M R Jaumally	Vet Officer- DVS	243 3654	466 1017	756 2000
2	Dr. A K Srivastava	Vet Officer- DVS	697 5829	454 1016	912 7262
3	Mr. Luchmeea	PAE- Agriculture	249 1529	233 4680	
4	Mr. R Soupe	Rep-Private Sector		433 4225	251 5255
5	Mr. R Dookee	Rep-Local Govt.	263 3412	201 2743	259 3117
6	Mr. S Mooloo	Deputy - ENV	627 6832	210 6059	254 9522

### 5.3 Responsibilities

#### 5.3.1 Office of the Principal Veterinary Officer

- Disseminates information
- Authorises destroying of animals
- Issues directives
- Authorises personnel
- Appoints valuation committee
- Arranges for detachment of personnel from other veterinary centres
- Informs the public and the media with the assistance of the press attaché of the Ministry

##### 5.3.1.1 Methodology

- As soon as the Division of Veterinary Services (PVO) is alerted of suspicion of Highly Pathogenic Avian Influenza on a farm (abnormal mortality/clinical respiratory symptoms), a diagnostic team (from Animal Health Laboratory) will be dispatched on site within the next hour. A rapid diagnosis would be carried out on site using the antigen test kit for detecting common influenza virus and Highly Pathogenic Avian Influenza H<sub>5</sub>N<sub>1</sub> sub type. Blood samples would be collected for laboratory confirmation of the disease.
- After confirmation of the disease, the Crisis Management Committee will be convened with immediate effect at the Headquarters, Réduit. After a rapid brief about the situation by the

Principal Veterinary Officer, the representatives from all departments concerned will be instructed to implement emergency measures as at Annex II.

- The area to be declared restricted within a radius of 3 km from the farm to prevent spread of the disease, interdicting and restricting all movement.
- Stamping out of all poultry within the 3 km. All birds found on the infected farm and within radius determined by the Crisis Committee would be destroyed on site in presence of officers from Ministry of Agro Industry and Fisheries, Ministry of Health and Quality of Life, Ministry of Environment and Police Department.
- All poultry farms would be screened within the 3 km zone. The health of birds beyond the restricted radius would be monitored and in case of suspicion of positive cases, the radius of the restricted area would be extended and similar measures as above applied.
- O.I.E. would be notified about the outbreak immediately.
- At times of outbreak, regular communiqués drafted jointly by the Ministry of Agro Industry and Fisheries and Ministry of Health and Quality of Life on status of disease will be published in the press and broadcasted.
- Exportation of chicken and products of chicken origin would be suspended.

#### **5.3.1.2 Stamping out**

Initiation of stamping out procedures/disposal of carcasses will consist of the following measures:-

#### **5.3.1.3 Large commercial broiler farms**

- Composting- Piling and covering of carcasses of birds into one corner of the house. During this process, the carcasses are wetted with water to promote decomposition/composting.

#### **5.3.1.4 Commercial layers farms and small breeders- stamping out procedures**

- Birds will be packed into plastic bags and destroyed by dislocation/gassing.
- Birds will be disposed by burial on sites approved by the Ministry of Housing.
- During above operation, all staff coming into close contact with poultry will be wearing personnel protective equipment.

The following steps will be used as guidelines to the disposal of carcasses:-

- ★ Step I All birds within a shed will be herded and confined into half of the building free of drinkers, feed trough, supporting pillars.
- ★ Step II Spreading of a strong canvass/heavy plastic over the birds.
- ★ Step III Flushing of CO<sub>2</sub> gas under the canvass/plastic.
- ★ Step IV Removal of canvass.
- ★ Step V Composting/destruction/gassing.
- ★ Step VI Complete disinfections of the rest of the shed with appropriate virucidals.
- ★ Step VII Administration of virucidal drugs to laboratory and farm personnel.
- ★ Step VIII Impose a farm rest of at least two months.
- Step IX Screening of all birds within the 3 km and stamping out of all birds on farms with positive reactors.
- ★ Step X Monitoring health situation of birds beyond restricted 3 km radius.

### **5.3.2 Police department**

- Supply required roadblock equipment and carry out road blocks and stop and search exercises with a view to control and check any suspicious vehicles, persons and contaminated poultry, etc..
- Assist the authorities concerned with roadblocks and
- For the enforcement of law throughout the whole process of disinfections operation and quarantine at any particular site. Assist with law enforcement

#### **5.3.2.1 Methodology**

In case of an outbreak of Avian Influenza, a Disease Control Centre will be set up at Reduit within the precincts of the Division of Veterinary Services. The main task of the Disease Control Centre will be to coordinate all activities on ground, ensure linkage between the Crisis Committee and the Technical Team.

#### **5.3.2.2 Notification procedures**

Whenever a case of outbreak/suspected infection is reported to the Police, the officer i/c Station will immediately inform the Principal Veterinary Officer who will, depending upon the magnitude of the outbreak decide upon the need to set up the Disease Control Centre

At the infected area/site, the primary duty of the Police will be to cordon off the site, in liaison with the Veterinary Services. No access to or from the site should be authorized.

At no time should the Police Officers enter the area /site unless specially equipped to do so under the guidance of the Veterinary Services.

### 5.3.2.3 Details of duties

On receipt of confirmation that there is an outbreak of Avian Influenza at a specific area, the following procedures will be adopted.

- The **OC Ops Room PHQ**, will , on being informed by the Disease Control Centre of any suspected infection case immediately inform the Commissioner of Police and the following officers:-
  - (i) The Deputy Commissioner of Police concerned
  - (ii) The Divisional Commander concerned.,
  - (iii) The SMF Ops Room,
  - (iv) The Superintendent of Police (Traffic),
  - (v) The ERS and
  - (vi) The Police de L'Environment
  - (vii) i/c Stations and OPS Room DHQ will immediately report any case in relation with the outbreak of any HPAI to the OPS room PHQ who will in turn initiate actions as per above.

The **CO SMF** will

- Provide an inner cordon and road blocks at affected areas in liaison with Divisional Commander concerned,
- Assist Veterinary Services in the disinfections exercise,
- Erect a tent to be used as Incident Post as well as a Medical Point by the staff from the Ministry of Health,
- Escort carcasses from the Incident point up to burial site, if necessary,
- Cater for the provision of JCB's, bobcats and other equipment for use in the excavation at the burial sites.

The **Div. Commander** concerned will

- Declare the area as 'protected area' and inform the public accordingly,
- Set up an 'Incident post' in between the inner and outer cordon,

- Maintain records of all task and duties performed by Police at the site,
- Provide sufficient personnel at entry and exit points to control the access of persons and vehicles entering or leaving the Protected Area (outer cordon). Depending on the location of the affected area, the outer cordon should be placed within a radius of three kilometers from the initial locus of the farm. In case involving large farms, a zoning system will be adopted and outer cordon effected in consultation with DCO SMF,
- In case involving built- up areas, the evacuation of the local inhabitants/ residents should be considered.

The **ACP (A)** will

- Provide necessary equipment to the Incident post(PPE, disinfectant such as detergents and alkalis for personnel and vehicles , tables and chairs),
- Provide transport as and when required,
- Arrange for the provision of security lights at nights.

The **ACP SSU** will assist

- Providing outer cordon and road blocks at affected areas, in liaison with the Divisional Commander concerned,
- In certain cases, they will assist the SMF and other authorities in escorting the vehicles up to the burial points and oversee the disposal of carcasses.

The **Passport and Immigration Officer** will

- Exercise strict control over persons entering Mauritius who may have been infected with the disease in liaison with the Ministry of Health and Quality of life and the Ministry of Agro- Industries and Fisheries.

The **SP (Traffic)** will

- Work out a traffic scheme for the diversion of traffic at affected area/site,
- Provide escort to vehicles carrying carcasses and special equipment,
- Inform the general public through broadcast of information over radio/TV.

The **OC ERS** will

- Provide mobile patrols along the outer perimeter of the prohibited area and maintain law and order at emergency centers.

The **OC Police de L'Environment** will

- Assist the Veterinary Services in locating dumping grounds for the burial of carcasses and supervise the disposal of carcasses at the dumping sites as per international environmental standards.

The **Police Press Officer** will

- Be in contact with the Divisional Commander concerned respecting the area declared as 'protected area' and timely relay the information to the public through the media,
- Inform the population about traffic diversion and the emergency centers (in case of evacuation),
- Transmit to the populace about the outcome and completion of the operation and any other information in relation to the safety and security of the public.

The **COMMS Branch** will

- Set up effective radio communication at the incident posts and the spots controlled by the Police.

The **Officer i/c Technical Unit**, will

- Be responsible for the taking of any snap shots and plan of the locus, if necessary, depending on the magnitude of the incident.

The **OCAP and OC Port Police** will

- Be responsible for the movement of passengers and their effects as well as any animals in and out of the country.

All officers i/c Police Stations will on immediate release of this order, police their area and carry out a survey to register all poultry farms (whether big or small, private or backyard farms} in their respective station areas. The said register is to be updated on a regular basis.

### 5.3.3 Ministry of Environment

- Provide with necessary authority for carcass disposal at localised sites.

#### 5.3.4 Ministry for local Government

- Assist in the supply of trucks, carriers and bins for the transport of dead and culled poultry carcasses.

#### 5.3.5 Ministry of Health

- Health inspectors carry out regular visits to poultry farms including small poultry breeders to ensure that proper husbandry practices are being observed and also to report abnormal deaths of poultry to the Veterinary Services,
- Issue of pamphlets to travellers to affected countries. Travellers are also asked to report cases of Influenza-Like Illness (ILI) to health authorities following their return to the country,
- To monitor personnel of affected farms,
- To provide treatment,
- To dispense advice as required,
- Employ Human Resources and necessary equipment required in the field action.

#### In case of outbreak of Avian Influenza on Poultry farm

- The regional Health Director of the hospital in whose catchment area the outbreak has occurred will be informed,
- The Regional Public Health Superintendent will be the coordinator for the Medical Team,
- A medical team comprising of two medical and health officers, two male and two female nursing officers and two Health Inspectors will be sent to the site with all the necessary personal protective equipment and drugs accompanied by a fully equipped ambulance. Additional staff will be mobilised if necessary,
- Screening and examination of all workers who have been in contact with infected or dead poultry will be carried out,
- Workers presenting with symptoms of influenza, namely fever, cough, muscle pain or body ache, cough and/or breathlessness will be segregated from the others and immediately transferred to an isolation ward at the Regional Hospital, taking all precautions to prevent the spread of the infection,
- At the hospital, blood samples will be taken for tests at the virology Laboratory at the Victoria Hospital,

- For positive cases of avian influenza, confirmatory tests will be done at the WHO Influenza Reference Laboratory in London,
- Treatment of strongly suspected or confirmed cases will be done according to the WHO guidelines on pharmacological Management of Humans infected with Avian Influenza A (H5N1) virus,
- Health Inspectors will take down contact details of all workers who have been in contact with infected or dead poultry for follow -up visits of these workers and of their close contacts and household contacts.

#### **5.4 Quarantine and movement control**

##### **5.4.1 Upon receiving confirmation of a diagnosis**

- ★ A farm should be placed under quarantine by issuing a quarantine notice from the DVS.
- ★ No movement of poultry and poultry products will be allowed
- ★ The PVO or his representative will take stock of all poultry, feed and poultry products on the farm.
- ★ The PVO or his representative will establish the number of birds on the farm, the sourcing and selling of birds and determine the history of flocks
- ★ The farm should be monitored 24 hours a day

##### **5.4.2 Bio security measures**

###### **Access to infected premises.**

Set up effective telephone and/or radio contact with staff on infected premises.

All personnel require protective clothing when entering the farm Provisional portable field tent which can be used by the crisis committee.

###### **★ Staff and equipment required:**

- Quarantine identification
- Mobile disinfection units
- Security lights (night)
- Official Vet

-Staff (for depopulation and bird removal etc.) including protective clothing, masks, goggles. Vaccination with current WHO recommended influenza vaccine and anti-viral treatment for suspected human infection with HPNAI).

- Vehicles (ensure that no feathers or faeces can fall/blow off the truck, by installing a frame with a double layer of plastic on either side of the truck)
- Identification of routes for vehicles with dead birds
- Police – escort trucks
- Signs: Road block/Control Point/No Entry/Quarantine Area etc.

- ★ Protection of burial site to prevent theft.
- ★ Gas, drugs, etc. to kill birds.
- ★ Appropriate containers for disposal of infected material.
- ★ Escavators, plastic bags and sprayers.

## 5.5 Killing of birds

- ★ Environmentally controlled house: stop fans, close off ventilation, infiltrate gas.
- ★ Small house: Seal house or remove birds into plastic bags for gassing or dislocation of necks or euthanasia.
- ★ Gassing: CO<sub>2</sub> (use 17, 5 kg/1000 m<sup>3</sup>). Birds need to be exposed to an atmosphere of at least 30% carbon dioxide to ensure loss of consciousness and then at least 70% carbon dioxide to kill the birds. This concentration must be maintained for at least 3 minutes.
- ★ Mechanical: eggs, chicks

### 5.5.1 Disposal

- ★ Burial trench 3 metres wide (not more than 3 m wide) and 3 metres deep. Cover with soil to a minimum depth of cover over birds of 1.5m. (This size trench will carry about 1 200 x 6 week old broiler per linear metre.)  
Bottom of trench must be at least 1 metre above the water table.
- ★ Cover with layer of calcium hydroxide (quick lime)
- ★ Incinerators to be considered

### 5.5.2 Disposal/destruction of infected material

**\* Eggs:**

- Eggs
- Egg trays
- Egg products
- o Burial/ incineration

**\* Litter:**

- Burial or spray with disinfectant, cover with plastic sheeting
- leave for at least 42 days and record core temperature(composting)
- Protect against birds, animals.
- Incineration

**\* Animal feed:**

- Fumigation, then incineration or burial.
- Protect against theft

**\* Feathers:** spray with disinfectant, bury or incinerate.

### 5.6 Decontamination

**\* Vehicles:**

- Thorough disinfection of vehicle, boot and tyres

**\* Walls, floors, ceilings:**

- Remove organic material
- Wash
- Disinfect

★ **Equipment:**

- Wash
- Treat with disinfectant for at least 48 hours

★ **Water reservoirs:**

- Empty
- Wash
- Disinfect

★ **Feed tanks:**

- Empty
- Wash with hot water (pressure)
- Fumigate

★ **After washing and disinfection:**

★ **Units:**

- fumigate twice with an interval of 2 weeks

**Protective clothing and footwear:**

Disinfect, wash, and re-pack.

**Disinfectants:**

Any disinfectant currently registered for use in Mauritius

E.g.; detergents, hypo chlorites, alkalis, glutaraldehydes, QAC's etc.

Quarternary ammonium	4% solution	equipment
Formalin and permanganate	Fumigation	Walls, floors, ceiling Electrical, hatcheries
Na hypochlorite	2% active chlorine	Equipment

## 5.7 Surveillance and epidemiological investigation

All movements of poultry, poultry products, potentially infected materials, vehicles to and from the infected premises to be traced and recorded up to a time to be determined by the crisis committee.

### Surveillance:

Organised National Surveillance.

- ★ Serological testing of commercial and village chickens, post mortem examinations in diagnostic labs, sentinel birds, monitor certain high density waterfowl/water bird areas for the presence of virus.
- ★ Continuous surveillance of all poultry premises should take place within the Control Area
- ★ Surveillance involves physical inspection of poultry for clinical signs of avian influenza, increased mortality and serological sampling
- ★ Serological samples should be tested by means of the ELISA, HI or AGID test.
- ★ No repopulation until authorised by the crisis committee.

## 6. REPORTS

The crisis committee and all stakeholders to meet as often as necessary and to report on each sectors of operation and new line of actions taken in view of current observations.

## 7. TERMINATION

The Principal Veterinary Officer approves the cancellation of quarantine to be determined by the Principal Veterinary Officer after the clinical endpoint, after all animals are found to be healthy.

## 8 COMPENSATION

Compensation arrangements whereby farmers or others can be paid fair and quick compensation for any animals or other property destroyed as part of a disease control. This issue is to be taken up at Government level.

## 9. RECOMMENDATIONS

### 9.1 CONTROL MEASURES TO PREVENT THE ENTRY OF THE VIRUS INTO THE COUNTRY:

Mauritius, including Rodrigues is currently free from HPNAI and our laws play a role in maintaining this freedom,(Animal Diseases Act). The following measures are in place to safeguard against the introduction of this virus into the country:

- ★ No live poultry, birds or ANY poultry products are allowed into the country, unless an import permit has been obtained from the Division of Veterinary Services. An import permit is only issued once the risk of importation has been assessed and found to be acceptable.
- ★ The importation of live poultry and poultry products are only allowed from countries that are free from NAI.
- ★ Imported live doc and birds are subjected to post-importation quarantine at approved quarantine stations in the country. Birds dying in quarantine are sent to the Animal Health Laboratory for examination and routine testing for the presence of AI or Newcastle disease.
- ★ Continuous monitoring of the disease status of all trade partners is essential to prevent the importation of products from infected countries.
- ★ Illegal importation (Smuggling):

The importation of live poultry or birds or poultry products without a permit poses a serious threat to the poultry industry, as it could allow entry of the virus into the country. The following actions are thus required:

- Train officials at ports of entry
- Alert police at ports of entry
- ★ Return of persons from a known infected country or region:
  - Train officials at ports of entry
  - Footbath (disinfectant-impregnated sponge mat) at airport
  - Create awareness of responsibility of persons not to visit or be in contact with poultry, poultry farms etc when visiting known HPAI infected countries/areas.
  - Declaration card by returning passengers of not having been onto farms etc when re-entering country.
  - Customs/Immigration officers to know which countries are experiencing disease outbreaks.

- “Exotic disease control Posters” at airports in departure lounges, immigration halls, baggage collection areas etc.

- \* Wild birds

It is important that all poultry houses are bird and rodent proof.