

**NATIONAL STEERING COMMITTEE FOR AVIAN INFLUENZA  
MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT**

**ACTION PLAN ON EMERGENCY RESPONSE TO  
DANGEROUS AVIAN INFLUENZA VIRUS STRAINS  
WITH POTENTIAL INFECTION ON HUMANS**

**Hanoi, February 2014**

## **I. OVERVIEW**

### **1.1 General information about influenza virus A/H7N9**

- Influenza virus A/H7N9 virus is determined to come from birds but has not caused clinical diseases for birds; the virus is transmitted from poultry to humans causing diseases for human and posing a high risk of fatality;

- Influenza virus A/H7N9 is the reassortment of 06 internal genes of influenza virus H9N2 circulated recently in poultry China, but the derivation of 02 external genes H7 and N9 are unclear but found to have a close relation with gene H7 on ducks and gene N9 on wild birds. Influenza virus H10N9 isolated on birds in Jiangsu province in China contains gene N, which is similar to gene N found in influenza virus A/H7N9.

- The mode of existence and transmission of influenza virus A/H7N9 is similar to influenza virus A/H5N1 which is always detected in poultry-concentrated places including live bird markets with poor management methods (the markets cannot control the origins of birds, have poor hygiene, constantly contain birds, don't have or have a few days of closures to clean and decontaminate)

- Influenza virus A/H7N9 has the existence and transmission mode like influenza virus A/H9N2 such as: the secretion of virus is via the throat; the virus contains internal genes of influenza virus A/H9N2; the virus has receptor-binding specificity like influenza virus A/H9N2 in poultry in China. This shows this virus has several characteristics similar to influenza virus A/H9N2 that it is at risk of spreading among poultry in China in the near future.

- At present, in bird markets in China, the rate of positive samples of influenza virus A/H7N9 found on chicken is higher than other animals, at the same time, many environmental samples are found to contain influenza virus A/H7N9. In addition, a small number of samples of duck, pigeons sold in Chinese bird markets show positive results. No farms have been found to be positive with influenza virus A/H7N9.

### **1.2. Epidemic situation**

- This virus was first detected in March, 2013 in Shanghai, China, by February, 2014, 330 cases have been detected, of which 73 cases were deaths (in

An Hui, Jiangxi, Henan, Hunan, Fujian, Jiangsu, Zhejiang, Guangdong, Shandong, Shanghai, Beijing, Guangxi of China, Hong Kong and Taiwan).

- According to WHO, Malaysia had confirmed the first Influenza A/H7N9 on humans. The victim was a 67-year-old female tourist from China in February 3, 2014.

- So far, this virus has been detected on birds and humans in Guangxi province, which neighbors Vietnam, but it has not been found on birds and humans in Vietnam.

### **1.3. Measures in place in China**

The Chinese government has put in place several measures to cope with influenza virus A/H7N9.

- Surveillance programs in live bird markets show the existence of the virus in the markets, in some cases, the rate of positive cases reached 10% of tested poultry.

- The temporary closure of the market was in place in some regions in China helping to reduce the rate of virus infection in poultry and reducing risks of human infection; however, in some cases, (like in Zhejiang province), some cases of human infection were reported when the market resumed. A research in China proved that the contact with birds in live bird markets is a factor of risk of virus infection on humans.

- Some live bird markets in China that have the circulation of the influenza virus had to close for 10 weeks to take intervention measures to reduce the possibility of the recurrence and spread of influenza virus A/H7N9 in the market.

- In the places that are reported to have human cases, the temporary closures of markets brought in immediate results, the number of infectious cases reduced dramatically. The closure of markets in Hong Kong in December 1997 due to the occurrence of A/H5N1 is a case in point.

- Some markets resumed their operation in late June 2013 under some compulsory requirements (like those in Shanghai) as follows:

- + Wholesale markets: Close one day a week.
- + Retail markets: Close one day every two weeks.
- + Trace the origins of all birds sold in the market so consumers can identify the origins of the poultry.
- + Set up the records of poultry purchasing profiles of bird traders.
- + Organize regular and thorough sanitation and decontamination.

+ Relocate the markets to be far from residential areas.

#### **1.4. Situation assessment:**

Some research on the transportation of dead chickens in China show that a large number of dead chickens with influenza virus A/H7N9 were transported from the North to the South to Guangxi and Van Nam province, which borders Vietnam. The virus has been found in poultry and humans in Guangxi province that borders Vietnam's 4 northern provinces. Meanwhile, cross-border illegal trade and trafficking of animals and animal products have continued. So, there is a high risk for influenza virus A/H7N9 to penetrate into Vietnam in the near future, especially in northern border provinces and the provinces that trade and consume poultry and poultry products that are illegally imported and with unclear origins. According to FAO, Vietnam, Laos and Myanmar are at high risk of infection of influenza virus A/H7N9 from China. Therefore, it is essential to work out an action plan to detect and respond to the infection of influenza virus A/H7N9 in poultry in Vietnam.

## **II. OBJECTIVES**

**2.1. General objectives:** Pro-actively detect and stay ready to respond to prevent, minimize the danger of infection on humans and negative impacts of influenza virus A/H7N9's invasion into Vietnam.

#### **2.2. Specific objectives:**

2.2.1. Minimize the penetration risk of influenza virus A/H7N9 into Vietnam through illegal import of poultry and poultry products.

2.2.2. Early detect, and timely deal with virus A/H7N9 once it comes to Vietnam.

2.2.3. Minimize the infection risk of influenza virus A/H7N9 in poultry and humans.

2.2.4. Minimize negative impacts on socio-economic development.

## **III. GENERAL SOLUTIONS**

### **3.1. Approach**

- The " One Health " approach will be used in which there is a close cooperation between the veterinary sector with other sectors such as health, market management, custom, border defence force, police, local authorities and international organizations to implement the most effective and comprehensive measures to ensure achievement of the designed objectives.

**Scenario 1:** None of influenza A/H7N9 case detected in poultry and from the environment.

**Scenario 2:** None of influenza A/H7N9 case detected in poultry and from the environment but there are human case reported.

**Scenario 3:** Detection of influenza A/H7N9 virus in poultry or from the environment but there are no human case.

**Scenario 4:** Detection of influenza A/H7N9 virus in poultry or from the environment and human case(s) infected.

### **3.2 General Solutions**

#### **3.2.1. Implementation solutions:**

- The National Steering Committee for Avian Influenza Prevention and Control (NSCAIPC) is a common clue to steer drastically the synchronous implementing measures to response to A/H7N9 avian influenza in poultry. This committee is responsible to regularly report the updated information about the A/H7N9 influenza to the Secretariat Board of the Central Party, Prime Minister, the office of the Central Party, the office of the President and the office of Government and propose the emergency measures to prevent and control disease in case of necessity. The NSC membered ministries and sectorial agencies based on its functional duties which assigned by the Prime Minister to immediately implement prioritized programs, projects and related plans.

- NSCAIPC periodically to holds online conference to brief the steering committees at provincial level and to provide regularly updates on influenza A/H7N9 in the world (or in the country) for the media and press agencies.

- Upon this plan the People's Committees of provinces and main cities will develop and approve their local plan with specific activities which are corresponding to the above scenarios, completely enhance the structure of the Steering Committee for avian prevention and control of different levels and assign specific responsibilities to members of the steering committee in implementation of specific actions in each scenario, mobilize whole political system of the local for disease prevention and control.

#### **3.2.2. Technical solutions:**

There are some points that need to notes as following: Currently, influenza A/H7N9 virus was detected mainly in China in both poultry and humans and the risk of into our country through smuggling poultry is very high; virus has not been caused any clinical disease in animals yet and the testing sample is remain the only

method to identify the carriers; live poultry markets, trade and collection points were defined as the storage and distribution of viruses; poultry and poultry products are still safe for human if it is slaughtered and processed in properly ways.

\* The measures should be applied in the border areas: strictly forbidden the trading and smuggling of poultry and poultry products across the border, including the act of giving poultry and raw poultry products as a gift or donation is the number one priority measure to prevent the virus from entering the country; organizing the propaganda activities to enhance the accountable responsibilities of the local authorities and function agencies on the dangers and harmful effects of avian influenza A/H7N9 aiming for change the perception of the residents at the border areas, encouraging them to not involved in abetting or participating in the poultry transportation and trade across borders; resolutely fight and treat severe any case of violation.

- Organize cleaning, disinfection and sterilization of the cross country border entry areas, crossings roads, and trail and transportation vehicles crossing the border. Do not allow poultry trading, collecting, gathering or slaughtering in the border areas and the opened economic zones in order to avoid legitimizing poultry and to facilitate the controlling measures.

\* Monitoring the trade of un-known original poultry and poultry products at the distribution market. Check and strictly handle all violations.

\* Focus on the implementation of sample collection for surveillance purpose from those poultry that were traded at the market and the collection points and environmental samples in the high risk areas of the northern border provinces and the local where un-known origin poultry and poultry products are consumed.

- Implement current animal disease surveillance program that are funded by USAID, FAO and CDC in certain provinces and cities; enhance the surveillance (by expanding geographical areas, increasing surveillance sampling frequency) with the state budget;

- Strengthening of the veterinary services for immediately response: Conduct training for the local veterinarian on sampling techniques, sample preservation and submit sample for A/H7N9 influenza virus surveillance; diagnostic and laboratory testing capacity; contact or make the linkage with the WHO, FAO, OIE, Australia, United States and China international influenza reference laboratories to update the technical protocol on laboratory diagnosis of influenza A/H7N9 virus and the other influenza viruses strains (A/H5N1, A/H10N8, A/H5N2, A/H6N1).

\* The intervention measures for poultry market:

- *For the markets where live birds was sole*: Periodic close markets for totally cleaning, disinfection, sterilization and eliminate the germs; hygiene sanitation, disinfection, and sterilization after operation; cleaning and disinfection vehicles, transport equipment and poultry containers; recording the information for traceability (where poultry was sold and consumed); encourage traders, transporters and poultry buyers to use masks, gloves and boots when handling poultry.

- *For the market where poultry was sold and slaughtered*: Separation of the live poultry and slaughtered poultry sessions; cleaning and disinfection areas that poultry and poultry products were sold and slaughtered after each operation; cleaning and disinfection all facilities, transportation equipment and poultry and poultry products containers.

\* Measures for slaughterhouse and slaughter points: Using personal labour protection equipment as recommended by the health sector when contact and slaughter poultry; do not slaughter un-known origin poultry; clean and disinfect slaughtered areas after operate; cleaning and disinfection all facilities and poultry and poultry products transportation equipment.

\* Conduct analysis study and carry out poultry and poultry products supply chain assessment for market purpose with a full range of relevant epidemiological information from hatchery - farm - transporter – market and slaughterhouse – distributor and consumer. Draft mapping supply networks of poultry and poultry products in each service area to response for controlling plans when needed.

\* In case human infection of Influenza A/H7N9 is found in Vietnam, it is required to implement additional measures as warned by the health sector.

### **3.2.3. Communication solutions:**

Ministry of Agriculture and Rural Development (MARD) in collaboration with relevant ministries and sectors and other media agencies (television, radio, newspapers) develop key messages and suitable media programs in accordance with the appropriate amount and frequency of each disease scenario to ensure risk reduction and safety to the community and to limit the negative impact on the economy. In particular, it is important to increase the awareness of local governments, sectors, mass organizations and general public about the danger of Influenza virus A/H7N9.

Ministry of Agriculture and Rural Development in collaboration with the Ministry of Health and other political organizations, socio-political organizations

and mass organizations to develop the communication programs on the impact of the risk and the harmful effects of avian influenza A/H7N9 strain in the community.

#### **3.2.4. Solutions of international cooperation**

- Ministry of Agriculture and Rural Development (Department of Animal Health, Department of International Cooperation) in close collaboration with the World Organisation for Animal Health (OIE), the Food and Agriculture Organization of the UN (FAO) and other international organizations and other related countries to share transparency the information of disease and preventive measures; to mobilize the financial and technical supports and other materials that can serve for the prevention of disease from international organizations and donor countries (FAO, WHO, USAID, OIE, EY, ASEAN, WB...)

- To mobilize the support of foreign countries and international organizations on technical assistance as well as equipment and reservation and control funds that is corresponded to each scenario, focusing on those activities such as A/H7N9 surveillance, making response plan for each scenario, implementing simulation exercises and conducting risk assessment, etc. as well as communicating to raise awareness of the related stakeholders in prevention and control diseases.

#### **3.2.5. Financial Mechanism**

- National budget objectively supports the central budget and locality guarantees the fund for the prevention and control of avian influenza.

- The central budget: Ensure funding for steering, monitoring and checking the disease prevention and control, preventing from poultry smuggling into the country, implementation of virus detection and isolation, trainings, conferences, workshops, researches, sending samples abroad and communication; culling sick poultry and environmental hygiene.

- Local budget: Ensure the funding for direction, checking the disease prevention and control, preventing from poultry smuggling into the country, monitoring, trainings, conferences, workshops, sending samples to test, communication, payment for disease prevention and control and support poultry owners, implementation of measures that applied in poultry markets, purchasing equipment, personal equipment, disinfectant and disinfection deployment; culling sick poultry and environmental hygiene.

- In short-term, ministries, sectors and provincial and municipal people's committees are required to proactively best utilize the allocated budget. Any



additional needs and recommendations shall be sent to the Ministry of Agriculture and Rural Development for summarizing, then be submitted to the Ministry of Finance and Ministry of Planning and Investment before being reported to the Prime Minister for approval.

- Mobilize aids from international organizations and other countries to implement activities to prevent and control the epidemic. Collaborate with the approved projects, programs, plans on disease prevention and control to save budget.

#### **IV. SPECIFIC ACTIVITIES**

**4.1. Scenario 1:** Influenza virus A/H7N9 has not been detected in poultry, environment and humans.

**4.1.1. Objective:** Minimize the penetration risk of influenza virus A/H7N9 into Vietnam, at the same time, timely detect if the virus penetrates into Vietnam.

**4.1.2 Specific activities:**

*\* Central agencies:*

- The National Steering Committee for Avian Influenza Prevention and Control maintains monthly meetings to steer epidemic prevention and control activities in general, and at the same time, regularly send working teams to inspect and direct localities in implementing the Prime Minister's Direction at the Telegram No 133/CĐ-TTg dated January 23, 2014 on strengthening cross-border avian influenza infection prevention and control, Telegram No 2245/CĐ-TTg dated on December 19, 2013 on strengthening the prevention and control of trafficking, fake goods and trade frauds.

- The Ministry of Industry and Trade continues to resolutely implement the "Project on preventing the trafficking and trading of illegally imported poultry and poultry products" under the Decision No 2088/QĐ-TTg dated December 27, /2012 of the Prime Minister.

The Ministry of Industry and Trade coordinates with the Ministry of Agriculture and Rural Development, the Ministry of Health, provincial and municipal People's Committees to urgently initiate and develop programs on restructuring live bird markets to ensure veterinary hygiene and safety, minimizing infection risks for humans (markets need to have separate areas for poultry trading and slaughtering, live bird markets need to close one day in a month and encourage traders to record profiles of poultry origins to facilitate the origin tracing, all the live bird markets need to organize sanitation and decontamination of poultry trading areas after each session,

encourage live bird traders to use appropriate personal protective equipment and ensure personal hygiene according to the health sector's recommendation)

- The Ministry of Information and Communication actively responds to the "Project on communications on the prevention and control of the trafficking and illegal trade of poultry and poultry products and ensuring food hygiene and safety" under the Decision No 550/QĐ-TTg dated April, 4, 2013 of the Prime Minister (Project 550). The Ministry directs news and press agencies to regularly and sufficiently disseminate information and develop special features about avian influenza prevention and control. The communications method should not make the public panic and should ensure safety for humans and animals. The content of communications should highlight the negative impacts of the illegal imports of poultry and poultry products on farmers, the local livestock production and community's health thus increasing the awareness of the local governments, sectors, mass organizations and general public, as well as condemning the violations and encouraging them not to use illegally imported poultry and poultry products, at the same time, instructing them measures to prevent influenza virus A/H7N9 from transmitting into the country and infecting humans and animals;

-The Ministry of Agriculture and Rural Development:

+ Continue collecting surveillance samples on poultry in border provinces and provinces that transport and consume illegally imported poultry. In the meantime, it is essential to continue the AI surveillance in live bird markets in 09 provinces and cities including: Lao Cai, Ha Giang, Cao Bang, Lang Son, Quang Ninh, Bac Giang, Bac Ninh, Ha Noi, Hung Yen. Expand surveillance in the remaining northern border provinces if influenza virus A/H7N9 circulates in China's Van Nam province.

+ Continue to closely coordinate with international organizations (WHO, FAO, OIE, EU, ASEAN, USAID, WB...), other countries, especially China to timely update information and take advantage of technical and financial support and cooperation in epidemic prevention and control.

+ Closely work with the Ministry of Health to monitor and update information about the development of A/H7N9 influenza on humans in the world and in the country, set up hotlines to exchange and share information. Regularly launch months of action on sanitation, sterilization and decontamination of poultry farms, establishments, slaughter houses and live birds markets/places. Prepare sterilization chemicals and personal protective equipment for disease prevention and control activities.

+ The Department of Animal Health makes plans and organize technical training for: Sub Departments of Regional Animal Quarantine, Sub-departments of

animal health focusing on avian influenza A/H9N9, personal sanitation and safety measures in contacting with poultry, measures to collect samples, measures to deal with poultry and localities with poultry being found positive with the influenza virus (live bird markets, farms), instruct measures for sanitation, sterilization and decontamination.

- + The Department of Animal Health makes plans and organizes training for laboratories on techniques of testing influenza virus A/H7N9, at the same time prepares the whole animal health system with necessary logistic, chemical, testing tools and equipment to respond to different disease Scenarios.

Mobilize laboratories of the National Centre for Veterinary Diagnosis and Regional Animal Health Organizations to participate in testing influenza A/H7N9. In necessary cases, mobilize laboratories of University of Agriculture and relevant Research Institutes.

- + The Department of Health coordinates with relevant agencies of the Ministry of Health to develop communication messages on risks at the current period and in the time of detecting influenza virus A/H7N9, recommend measures for personal sanitation and safe use of poultry. Strengthen communications activities, provide update information to help people not to be panic or boycott poultry products and effectively take preventive measures.

- + The Department of Animal Health stays on duty on disease prevention to timely update information about influenza A/H7N9, set up quick response teams in case of detecting the penetration of influenza virus A/H7N9 in Vietnam.

- + The Department of Animal Health coordinates with relevant units from the Ministry of Health, WHO, FAO to conduct regular assessment of the danger of avian influenza A/H7N1 penetrating the country to consult on adjusting appropriate measures.

- + The Department of Animal Health, the Livestock Production Department continue to study and analyse poultry supply chain to identify key areas for strong intervention, conduct risk assessment on activities relating to poultry trading and trafficking in border areas.

- + The Institute of Animal Health works out plan to research dangerous influenza virus strains that have potential infection on humans.

- + The Livestock Production Department, the National Centre for Agricultural Extension develop plans on communications and training on the application of biosecurity measures in poultry farms and concentrated poultry slaughter establishments.

+ Cooperate with the Ministry of Health, Ministry of Industry and Trade, relevant Ministries and sectors, and localities to organize simulation exercises in response to cases of detecting influenza virus A/H7N9 in poultry and environment.

- The Ministry of Finance, the Ministry of Defence, the Ministry of Transport, the Ministry of Public Security issue directions for relevant forces to assist the prevention and control of illegal imports of poultry and poultry products for domestic consumption.

- The Ministry of Finance works with the Ministry of Planning and Investment, the Ministry of Agriculture and Rural Development to make plans on funding allocation for epidemic prevention and control, particularly the surveillance and detection of new avian influenza virus strains and prepare sufficient funding for emergency response to dangerous avian influenza virus strains that have potential infection on humans.

*\* Main City, Provincial People's Committees*

- Fine-tune and maintain the operation of Steering Committees for Avian Influenza Prevention and Control at all levels, set up task forces in response to H7N9 avian influenza; conduct simulations to cope with situations when influenza virus A/H7N9 is found in poultry and environment.

- Issue documents and directions for authorities and agencies at all levels to cooperate with relevant central agencies in localities in implementing Project 2088, Project 550, directions of the Prime Minister and Ministries, sectors in preventing the cross-border penetration of the virus. Particularly, direct the implementation of measures in border areas. The northern border provinces are to ban the trading, transportation of poultry and poultry products across border, including the act of giving poultry and raw poultry products as gift, donation in order to prevent the virus from penetrating the country.

- Check live bird markets, poultry transiting places in the localities that trade waste poultry and poultry with unknown origins for surveillance.

- Direct the border soldiers, police, market management force, local authorities of border communes to strictly combat and deal with cross-border traders and traffickers of poultry and poultry products. Dispose all illegally imported poultry.

- Direct local news and press agencies to strengthen communications on infection risks of avian influenza virus from overseas through the trafficking and trading of poultry and poultry products; instruct measures to prevent the virus transmission into humans and safety measures of poultry use. Mobilize social organizations to join in the communications activities.

- Direct local animal health agencies to strengthen the collection of surveillance samples on illegally imported poultry and live poultry in the markets, environment samples according to the Surveillance Plan of the Ministry of Agriculture and Rural Development. Organize technical training for local animal health system.

- Regularly clean, sterilize and decontaminate high-risked areas, especially live bird markets.

- Prepare funding, materials, chemicals, equipment to promptly implement prevention and control activities when the epidemic occurs. Prepare plans to dispose poultry in case of positive samples.

- Organize inspection teams; instruct preventive measures in high-risked areas.

**4.2. Scenario 2:** Have not detected influenza virus A/H7N9 on poultry and environment, infected people reported.

**4.2.1. Objective:** Minimize the risk of virus multiplication and spreading

**4.2.2. Specific activities:** Basically, specific activities are similar to those in the Scenario 1, more focus should be made to the following activities:

*\* Central Agencies:*

- The National Steering Committee for Avian Influenza Prevention and Control meets intensively twice a week to keep updated with latest developments and coordinate prevention activities. Ministries, sectors which are members of the steering committee implement activities to prevent and control the epidemic under the Ministry of Health's action plan to prevent and control avian influenza on humans

- The Ministry of Agriculture and Rural Development is to:

- + Assign Rapid Response Teams to work closely with Health Ministry units to implement general epidemiological investigation; collect surveillance samples from poultry and environment where people are found infected with avian influenza A/H7N9, and from the areas involved with the epidemic.

- + Based on the epidemiological investigation of the disease in populations of humans, it is recommended that the local governments temporarily ban poultry sales and transportation in the high-risk localities for 07 days for epidemiological investigation in poultry;

- + Work closely with the Ministry of Health to provide instructions for safe slaughtering and consumption of poultry, as well disease prevention for people.

- + Work closely with the Ministry of Information and Communication, and media organizations to communicate properly about the epidemic to avoid stirring

up a fear among the community, and offer advices on good personal hygiene and safe consumption of poultry.

- + Instruct the veterinary sector to stay prepared to cope with new infected cases.

- + Instruct local governments to prepare human and financial resources, tools, chemicals, and locations to bury dead birds in case the avian influenza A/H7N9 is found in animals.

- The Ministry of Industry and Trade: Stay ready with a plan to provide market with alternative food products, stabilize the prices and manage implementation in localities.

- The Ministries of Industry and Trade, Public Securities, and Transport instruct forces to support and monitor the implementation of measures issued by the Ministries of Agriculture and Rural Development and Health, as well as strictly punish those who violate the rules.

#### *\* Provincial and Municipal People's Committees*

- The localities where people are found infected need to strictly honor the instructions from the steering committee for avian influenza prevention and control at all levels. Working groups are established to steer and supervise the localities where infected cases are found and the localities involved in the epidemic.

- Instruct local veterinary systems to strengthen sample collection from poultry and environment to test for avian influenza A/H7N9 virus; strengthen at-source quarantine activities in a bid to provide consumers with safe poultry products with specific origins.

- Instruct local media and newspapers to communicate messages from the health and veterinary sectors to ensure no panic among the communities.

- Instruct relevant local agencies to supervise the implementation of measures to control poultry transportation and trading. Clean, detoxify and disinfect the whole area of the communes where people are found infected with avian influenza A/H7N9.

- Prepare a plan to provide the market with alternative food products and stabilize the prices.

- Prepare human resources and assign tasks to relevant units, make sure that money, tools, chemicals and bury locations are in place for any cases of avian influenza A/H7N9 to be found in animals.

**4.3. Scenario 3:** Detect avian influenza A/H7N9 viruses in poultry or environment but no human infection are found.

**4.3.1. Objective:** Eliminate the danger of virus accumulation and circulation, as well as prevent the avian influenza A/H7N9 virus from spreading to humans.

**4.3.2. Specific Activities:**

*\* Central Agencies:*

- The National Steering Committee for Avian Influenza Prevention and Control holds weekly and ad-hoc meetings.

- The Ministry of Agriculture and Rural Development:

- + Assign the Rapid Response Teams to visit the localities where samples are tested positive with avian influenza to support their prevention and control efforts. Work closely with relevant units from the Health Ministry to implement epidemiological investigation (including backward and forward tracing to identify the origin of poultry, locations where poultry is traded), inform local governments and people to prevent virus infection. Conduct sample collection in poultry in areas involved in epidemic.

- + Mobilize the best resources from central veterinary agencies to implement measures to collect surveillance samples, investigate epidemic and instruct high-risk localities on how to cope with the epidemic.

- + In case the avian influenza A/H7N9 viruses is found **in samples collected in markets:** Temporarily ban live poultry sales for at least 7 days in the markets where the tests are found positive to investigate epidemic and identify the origin of viruses (*investigate the origins of poultry sold in the market to identify supplying farms; monitor the secondary poultry markets involved*). Collect surveillance samples and immediately cull the poultry being on sale in the market to minimize virus spread and protect the community. Increase the sample collection in related markets.

- + In case the avian influenza A/H7N9 virus is found **in samples collected in poultry farms:** Conduct epidemiological; cull the poultry in the farm in order to minimize virus spread outside the farm, provide farm owners who have their poultry culled with support similar to those suffered from avian influenza H5N1. Freeze the farms for at least 21 days as well as clean, detoxify and disinfect the whole farms. Poultry in the locations related to epidemic will be monitored, detoxified and disinfected. Strictly control the transportation of poultry with no origin and no veterinary quarantine. Conduct detoxification and disinfection in the locations where avian influenza A/H7N9 virus is found. Work closely with the

health sector as stipulated under the joint circular No. 16/2013/TTLT-BYT-BNN & PTNT dated 27 May 2013 to monitor the epidemic in humans.

+ In case the avian influenza A/H7N9 virus is found **in poultry raising villages, hamlets**: Conduct epidemiological investigation to identify the flocks that have been in contact with infected poultry; cull all poultry in infected flocks and the flocks that have been in contact with infected ones. Detoxify and disinfect the infected areas; temporarily halt the transportation of poultry in the village and hamlet, including the ban of free-range farming; collect additional test samples to identify the speed of virus spreading in the region; inform the health sector for disease supervision on humans.

+ Build an epidemiological map of avian influenza A/H7N9 virus circulation in poultry, environment (markets, farms, villages, hamlets) and communicate about the epidemic on mass media.

- Ministry of Health: Implement activities to supervise avian influenza A/H7N9 virus in human in the areas where samples are tested positive in poultry and environment.

- Ministries and sectors honour their functions and responsibilities to instruct relevant forces to support the agricultural sector to implement the above-mentioned measures.

*\* Provincial and main City People's Committees:*

Ban the poultry transportation and sales in the locations where avian influenza A/H7N9 virus is found, as well as instruct relevant forces and local governments to implement response measures issued by the national steering committees.

**4.4 Scenario 4:** Avian influenza A/H7N9 virus is found in poultry or environment and people are found infected.

**4.4.1. Objective:** Minimize the danger of virus accumulation, spreading, and continuously transmitted to animals and people.

**4.3.2. Specific Activities:** Implement measures similar to those in Scenario 2 and 3. Call on international organizations and foreign countries to support Vietnam in its effort to cope with the epidemic.



## **V. ORGANIZATION AND IMPLEMENTATION**

### **5.1. The National Steering Committee for Avian Influenza Prevention and Control**

The National Steering Committee for Avian Influenza Prevention and Control is the clue to co-ordinate and steer the emergency response activities nationwide under this plan. Depending on the conditions in reality and developments of the epidemic, the committee shall consult and recommend the Prime Minister to instruct ministries, sectors and localities to implement additional measures appropriately.

### **5.2. Ministry of Agriculture and Rural Development**

#### **5.2.1. Department of Animal Health:**

- Consult the Ministry of Agriculture and Rural Development on implementing appropriate measures in the above-mentioned scenarios.

- Directly steer, supervise and monitor localities in preparing necessary conditions for epidemic response such as: develop a local response plan, prepare materials, chemicals, personnel, and specific plans for each and every scenario.

- To be a clue to steer the implementation of activities to prevent and control avian influenza in Vietnam. Participate in the risk assessment group which involves relevant units from the Ministry of Health and international organizations (FAO, WHO).

- Develop a specific plan for the implementation of activities to prevent and control avian influenza A/H7N9 virus and several other virus strains in poultry nationwide for the ministry's approval.

- Release guiding documents for technical measures to cope with poultry, detoxify and disinfect the locations where the avian influenza A/H7N9 virus is found, as well as safe slaughtering and consumption of poultry.

- Work closely with the Department of Animal Husbandry, relevant units from the Ministries of Industry and Trade, Health and localities to consult government at all levels on how to implement measures to cope with poultry markets and locations where the samples are tested positive with avian influenza A/H7N9.

- Work closely with relevant units from the Ministry of Health and local veterinarians to investigate epidemic outbreak, supervise and deal with the outbreaks.

- Work pro-actively and closely with relevant units from the Ministry of Health, the Ministry of Information and Communication to produce communication messages for the prevention and control of avian influenza A/H7N9.

- Instruct affiliate units to work with the Department of Animal Health to study avian influenza to support the steering and execution of avian influenza prevention and control.

- Being a clue for international co-operation in avian influenza prevention and control as instructed by the Ministry of Agriculture and Rural Development.

- Contribute to developing plans and organizing national and international seminars on avian influenza prevention and control in Vietnam.

#### **5.2.2. Department of Animal Health**

- Work closely with the Department of Animal Health to produce messages to communicate about avian influenza and get directly involved in media and communication activities.

- Issue guiding documents, organize training and workshops, and instruct localities on how to implement epidemic-security measures in poultry farming.

- Work closely with the Department of Animal Health to implement studies in market supply chain for poultry and poultry products.

- Supervise and speed up the epidemic prevention and control in localities.

#### **5.2.3. National Center for Agricultural Promotion:**

- Work closely with the Department of Animal Health to produce messages to communicate about avian influenza and get directly involved in media and communication activities.

- Work closely with the Department of Animal Husbandry to organize workshops on how to implement epidemic-security measures in poultry farming.

- Supervise and speed up the epidemic prevention and control in localities.

**5.2.4. Other Units:** Departments of: Planning, Finance, Science and Technology, Environment, Legal Affairs, Ministry's Inspectorate, Institute of Veterinary, Institute of Animal Husbandry work closely to honor their functions and responsibilities.

#### **5.3. Ministry of Health**

- Work closely with the Ministry of Agriculture and Rural Development to conduct epidemiological investigation, supervise epidemics, and implement activities to prevent and control epidemic in humans.

- Work closely with the Ministry of Agriculture and Rural Development, Ministry of Information and Communication, and media and newspapers to produce communication messages, provide technical guiding documents and organize communication campaigns.

- Proactively implement activities to prevent and control epidemic under the Ministry of Health's action plan on human influenza epidemic.

#### **5.4. Ministry of Finance**

- Work closely with the Ministry of Planning and Investment
- Report to the Prime Minister on the financial resources allocated to the epidemic prevention and control.
- Instruct customs sector to work closely with relevant units from ministries, sectors and local governments to prevent illegal import of poultry and poultry products through border gates.

#### **5.5 Ministry of Planning and Investment**

- Work closely with the Ministry of Finance, report to the Prime Minister on the financial resources allocated to the epidemic prevention and control.

#### **5.6. Ministry of Defence**

- Instruct border defence forces to work closely with relevant units from the Ministries, sectors, and local government to prevent illegal import of poultry and poultry products along the borderline.
- Instruct the border defence forces to participate in communication activities, helping to increase the awareness of local people living in the border region about epidemic prevention and control; prevent trade fraudulence and illegal transport of poultry across the border.
- Depending on the developments of the epidemic, instruct the military medical corps and other forces to stay ready to help prevent and control the epidemic.

#### **5.7 Ministry of Industry and Trade**

- Continue to strictly implement Project 2088 and the plan on restructuring and zoning markets as directed by the Prime Minister.
- Instruct market management forces and relevant units to work closely with veterinarians, police, traffic inspectorates to deal with people who trade and transport poultry and poultry products of no origins in the market.

#### **5.8. Ministry of Transport**

- Issue decrees to strictly ban all means of transport to transport poultry and poultry products of no origins strictly punish the transport owners who violate the rules.

- Instruct traffic inspectors and relevant units to work closely with market management forces, veterinarians, police to deal with people who trade and transport poultry and poultry products of no origins at railway stations, bus stations, and traffic hubs.

#### **5.9. Ministry of Public Securities**

- Instruct police forces to work closely with relevant units from the Ministry of Industry and Trade, the Ministry of Transport, Ministry of Agriculture and Rural Development, the Ministry of Finance to fight, prevent and deal with people who trade and transport poultry and poultry products of no origins.

- Instruct police forces to establish special task force to deal with people who trade and transport illegally-imported poultry across border.

#### **5.10. Ministry of Foreign Affairs**

Instruct Vietnam's foreign-based representative offices to update information and report timely on the developments of avian influenza A/H7N9 virus in humans as well as the virus circulation in animal overseas for the government to come up with appropriate counter-measures.

#### **5.11. Ministry of Science and Technology**

Work closely with the Ministry of Health, Ministry of Agriculture and Rural Development, Ministry of Natural Resources and Environment to develop a plan to research scientific and technological solutions for avian influenza prevention and control.

#### **5.11. Ministry of Natural Resources and Environment**

Work closely with the Ministry of Health, Ministry of Agriculture and Rural Development to instruct measures to cope with environment for avian influenza epidemic prevention and control.

#### **5.12. Ministry of Information and Communication**

Steer to strictly implement Project 550 as well as direct media organizations and newspapers on campaigns to communicate about the danger that influenza virus A/H7N9 may penetrate the country and measures to minimize this danger. Instruct measures to prevent and control virus infection on humans as warned by the Ministry of Health and Department of Animal Health.

#### **5.14. Provincial and main city People's Committees**

- Instruct the Department of Agriculture and Rural Development to work closely with central and local departments and agencies on the basis of this plan to develop a local response plan which will be submitted to a higher level for approval.

- Assign specific responsibilities to governments at all levels, local departments and sectors to synchronously implement measures to prevent and control avian influenza epidemic as planned by central and local governments.

- Instruct governments at all levels, local departments and sectors to strengthen supervising and speeding up activities to prevent and control avian influenza epidemic as stated in steering documents from central and local governments stipulated under the law.

This plan will be updated and altered regularly and timely depending on the development of the epidemic inside and outside the country, as well as the updated scientific information about avian influenza viruses. At the same time, the plan will be altered in accordance with the actual implementation of epidemic prevention and control activities/.