

FAO Supports Viet Nam's Department of Animal Health and Department of Livestock Production with HPAI Surveillance Activities

LEARNING RABIES PREVENTION AND CONTROL FROM BALI

Conducting a study tour to Indonesia from 9-14 March 2014 is a key capacity building and advocacy-related activity implemented through FAO's Vietnam's Technical Cooperation Program-in support of rabies prevention and control. Sixteen senior government officials from the public and animal health sectors in Thai Nguyen, Phu Tho, Yen Bai and Son La provinces, Ministry of Agriculture and Rural Development and Ministry of Health participated in the tour exposing professionals and decision makers to Indonesia's successful rabies management program. Participants learned how the animal and public health officials have collaborated closely to develop joint communication messages, detect rabies early in

animals and people, and conduct joint investigations.

Participants acknowledged that marking vaccinated dogs with a collar was a good way to measure coverage in an effort to vaccinate at least 70% of the local dog population, the goal of an effective dog vaccine program.

After discussions with the "A team", the best local dog catching and vaccination team, participants worked side-by-side visiting to village households, capturing roaming dogs and vaccinating dogs.

By observing and learning to apply One Health rabies control principles in Indonesia, participants gained confidence that they could incorporate lessons learned into their provincial



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rabies prevention and control plans. Four joint animal and human health rabies plans for Thai Nguyen, Phu Tho, Yen Bai and Son La Provinces have been revised and upgraded with technical assistance provided by the Emergency Centre for Transboundary Animal Diseases (ECTAD) of FAO Viet Nam to support a more effective Viet Nam national rabies eradication program.

1. An instructor showing how to capture, vaccinate and put a collar mark on a dog
2. Participants from FAO, Ministry of Health, Ministry of Agriculture and Rural Development, Provincial Departments of Agriculture and Rural Development, and Department of Health in Son La, Yen Bai, Phu Tho And Thai Nguyen province



FAO LAUNCHES HATCHERY BIOSECURITY FILM

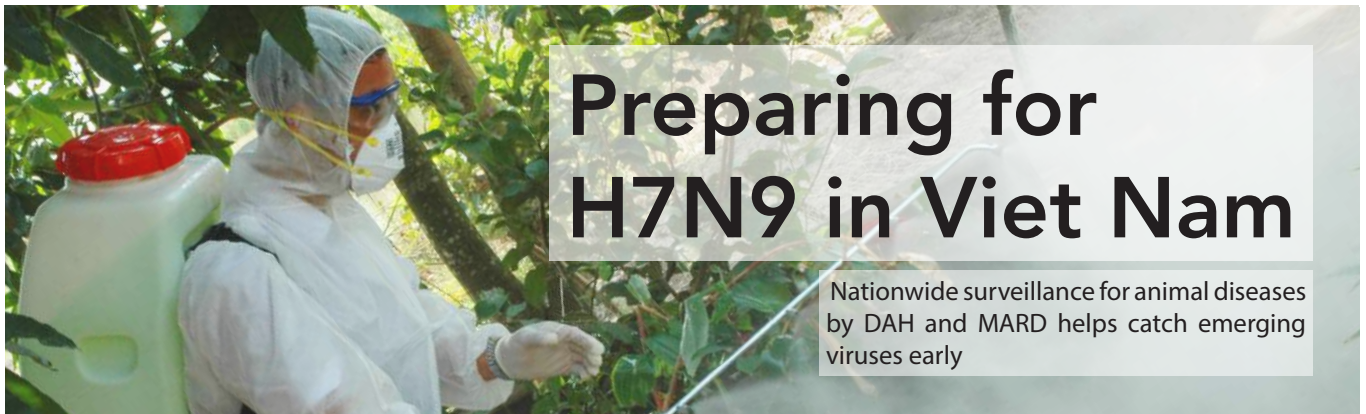
Making Viet Nam's hatcheries safer

FAO ECTAD Viet Nam has developed an 11-minute film to strengthen the biosecurity of small and medium scale independent hatcheries in Viet Nam and enable them to improve hatchability and quality of day-old birds (DOBs) while reducing the risk of disease transmission. The guidelines introduced in the film were developed with the cooperation of the Department of Livestock Production (DLP) and the Departments of Agriculture and Rural Development (DARDs) of Can Tho and Quang Tri provinces, and funded by USAID. The film will be screened primarily to hatchery owners and workers.

In the film, six hatchery owners in Quang Tri and Can Tho provinces speak about changes they made to their hatcheries that resulted in improved production and less disease. Hatchery owners share their experiences to inspire other small and medium-scale hatchery owners and to help them understand the basic principles of biosecurity and apply similar biosecurity measures in their own hatcheries.

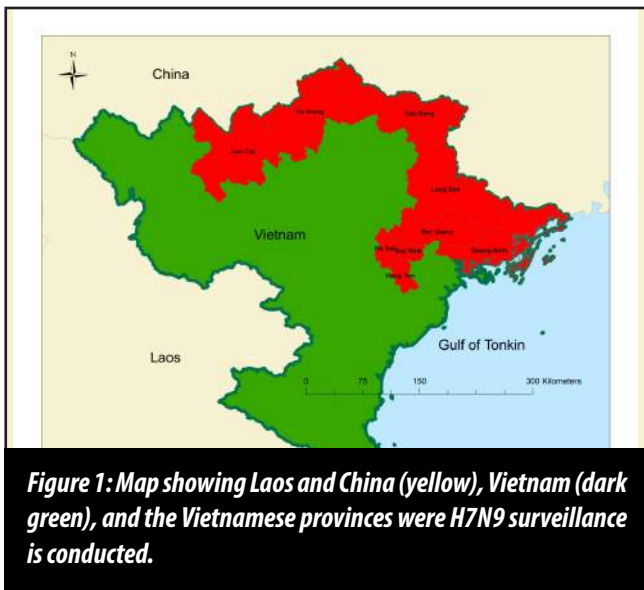
In Viet Nam, household hatcheries are an important node in the poultry production chain, and hatcheries with poor biosecurity lead to hazardous outcomes to both poultry and human health as well as lower income for owners.

To strengthen FAO ECTAD's communication strategy, a shorter promotional version of the film was produced. Though both films emphasize the importance of hatchery biosecurity, the promotional film focuses on achievements of the FAO-DLP's collaboration in hatchery strengthening programs funded by USAID. The films will soon be available on FAO Viet Nam's website.



Preparing for H7N9 in Viet Nam

Nationwide surveillance for animal diseases by DAH and MARD helps catch emerging viruses early



On 31 March 2013, the government of China reported its first case of human infection with the novel influenza A strain H7N9 in eastern China. Since then, there have been 432 laboratory-confirmed human cases with this virus, 146 of whom have died. Reports suggest that most of the human cases had direct or indirect contact with infected poultry such as visiting wet markets and having contact with environments where infected poultry have been kept slaughtered.

H7N9 virus spreads invisibly among poultry, causing no visible signs of illness, but infects humans who come into contact with sick birds or the virus in live bird markets. In China, the virus has been found in birds and in environmental samples at LBMs close to where human cases have been reported. Since the first official outbreak of H7N9, the virus has spread to 15 provinces, including Guangxi which borders North Viet Nam.

North Viet Nam's long boundary with China is marked by cross-border trade, including poultry, and heavy traffic of people and goods at several crossings. This poses a risk for H7N9 incursion into Viet Nam. An emergency surveillance programme to monitor H7N9 incursion from China was set up by the Department of Animal Health (DAH)-Ministry of Agriculture and Rural Development (MARD) Viet Nam, in close collaboration with FAO.

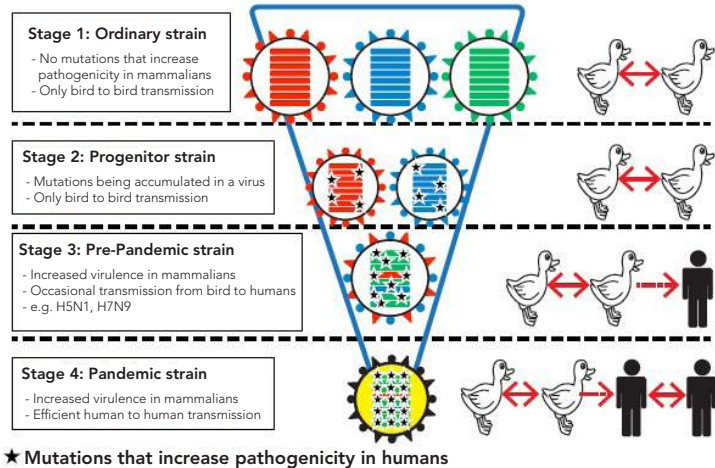
In 60 markets selected for H7N9 surveillance in nine northern provinces (fig. 1), chickens and environmental samples are collected bi-weekly to monitor the possible introduction of the influenza A H7N9 virus. MARD and the Ministry of Health have both developed Contingency plans and a joint one health approach has led to joint technical meetings and statements. But none of the 25,000 samples to-date have tested H7N9 positive.

Experts predict this virus will be around for a long time and it is unlikely that Viet Nam will be able to sustainably block poultry movement from China making it necessary to be well prepared and to have a highly sensitive surveillance system for early detection followed by a rapid response.

H7N9 COMMUNICATION STRATEGY

Recent experience has shown that Live Bird Markets (LBM) play an important role in the transmission and spread of H7N9. Poultry vendors, traders and transporters are considered to be at higher risk of exposure because of their daily contact with chicken. FAO ECTAD Viet Nam, in partnership with Viet Nam's Department of Animal Health-Ministry of Agriculture and Rural Development (DAH-MARD), has developed a risk communication package targeting high risk individuals working in markets. The messages, aimed at 60 high-risk markets where H7N9 may likely arrive from China emphasize the importance of good biosecurity and hygiene practices to reduce risks to animal and people. Information on potential market closure and market rest days in case H7N9 is detected is also provided.

What makes a global pandemic



Infectious diseases have impacted millions of people throughout history. However, with increasing global populations of humans and food animals, the growing trend of wildlife farming, consumption, and trade, along with encroachment, pandemic threats are emerging in different ways than we have observed in the past.

Approximately 60% of human diseases are zoonotic, or transmitted from animals to humans, and of these, approximately 70% come from wildlife. Globally noteworthy infectious diseases that originated from wildlife include HIV/AIDS and Severe Acute Respiratory Syndrome (SARS), while Middle East Respiratory Syndrome (MERS)-CoV, Ebola, and influenza viruses including highly pathogenic avian influenza (HPAI) H5N1, HPAI H5N6, and influenza A/H7N9 virus are in the news on a daily basis.

Regardless of whether viruses originate from livestock or wildlife, pathogen evolution is being driven in two major systems: human-modified natural ecosystems where natural resources are being consumed, biodiversity is being lost, and ecological services are not being sustained; and in expanded or intensified farming systems linked to meeting global demands for livestock-based protein.

Globalized food, exotic pet or exhibit animal value chains enable pathogens, animals and products to travel across the globe in less than 24 hours. Cultural preferences and increasing socio-economic purchasing power

enables consumers to import, display or consume exotic and wild animals increasing the risk for contact or consumption with potential pathogens carried by these animals.

In developing countries, a combination of poverty and food insecurity often leads to people sharing living quarters with livestock without proper hygiene or biosecurity. This increases their potential exposure to pathogens carried by livestock they live in close contact with. Subsistence associated wildlife consumption is also a global food security reality which places impoverished people at risk for pathogen exposure.

First human case on H7N9

On 31 March 2013, the first human case of avian influenza A (H7N9) was reported in China. While there are no reports of human to human transmission to date, human deaths from this virus are associated with direct contact with infected birds or market environments. H7N9 virus has evolved through a series of reassortments of at least three other viruses from poultry and wildlife. Fortunately, no mutations have occurred enabling human to human transmission.

In the case of HPAI H5N1, this virus has evolved in only eight years in more than 64 countries around the world and has resulted in more than 10 clades (variants linked to evolutionary change). As this pathogen has evolved,

it has spread globally, causing 641 confirmed infections of which 380 were lethal as of 8 October 2013. It has also led to the death of millions of poultry, resulting in more than \$10 billion dollars in economic losses to the global agriculture economy and livelihoods of farmers. This virus has also evolved several times to develop immunity to the vaccines developed to control poultry diseases. Today it remains endemic in Egypt, Indonesia, the Mekong Delta, the Gangetic Plain, and China.

To detect the virus before it emerges in human populations, we need to look further upstream in animals for progenitor viruses from modified natural and agro-ecological systems. With this information we can move towards predicting and preventing new threats to global health security. Not only would this be more cost effective, but it would also prevent loss of human life, safeguard livelihoods and protect food security.

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FAO ECTAD Viet Nam is working on Rabies Prevention and Control in coordination with WHO, Ministry of Agriculture and Rural Development and Ministry of Health under the One Health spirit.

World Rabies Day

#TogetherAgainstRabies

September 28th, 2014



Food and Agriculture Organization
of the United Nations

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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