

FAO Supports Viet Nam's Department of Animal Health and Department of Livestock Production with HPAI Surveillance Activities since 2012

FAO ECTAD VIET NAM CONTRIBUTES TO THE PREPAREDNESS PLAN FOR H7N9 CONTROL AND PREVENTION



The Emergency Centre for Transboundary Animal Diseases (ECTAD) of the Food and Agriculture Organization of the United Nations (FAO) was asked to participate in the Ministerial level meeting on the H7N9 national preparedness plan. H7N9 is a virus that causes influenza in poultry and human beings, and has been spreading in China since March 2013. With the detection of H7N9 in China's Guangxi province, the virus directly threatens Viet Nam, which is just across the border and has active cross-border trade with China.

The meeting was chaired by Cao Đức Phát, the Minister of Agriculture and Rural Development (MARD) and included senior government officials from the Ministry of Health, the Ministry of Trade and Industry, the Ministry of Public Security, the Ministry of Defense, the Ministry of Transportation,

the Ministry of Finance, the Ministry of Planning and Investigation and the Ministry of Foreign Affairs. These are some of the ministries that support MARD in its efforts to prevent an incursion of H7N9 into Viet Nam, and respond rapidly should the virus enter the country.

Addressing workshop participants on behalf of Mr. Konuma, Assistant Director General and FAO's Regional Representative for Asia and the Pacific (RAP), Dr. Subhash Morzaria, Regional Manager, ECTAD RAP, stressed that active surveillance and transparent reporting of slightly sick or dead birds to local veterinary authorities for sampling is of utmost importance in detecting H7N9 in Vietnam. The Government, he said, should organize simulation exercises to include central, Provincial, District and commune level staff in order to increase preparedness, improve communication at

provincial and market levels, and clarify the roles and responsibilities of stakeholders in case of market closures for cleaning and disinfection.

The National H7N9 Preparedness Plan was approved by the Minister for Agriculture and Rural Development on 14 February and took effect immediately. It was accompanied by a new telegram by the Prime Minister issued on the same day entitled 'Strengthen prevention of avian influenza H7N9 and other highly pathogenic avian influenzas that can be transmitted to human beings.

The wealth of knowledge gained from the fight against H5N1 HPAI (highly pathogenic avian Influenza), has affirmed FAO Viet Nam's commitment to working closely with MARD, international organizations including WHO, and other Ministries to be prepared to respond to this newly emerging threat.

The Search for Viruses that Could Create the Next Global Pandemic



Figure 1: Provinces where EPT+ surveillance was conducted. Virus was not detected on farms in Blue Provinces, while farms in Red Provinces harvested one or more Influenza viruses.

The worldwide influenza pandemic of 2009 was caused by an H1N1 virus of swine origin. This human virus has repeatedly infected swines through reverse zoonosis, and has re-assorted with other swine viruses. This potential for recombination continuously poses new routes through which novel viruses may emerge to threaten human health.

The United States Agency for International Development (USAID) has funded FAO to expand influenza surveillance activities through the Emerging Pandemic Threat (EPT+) programme. The EPT+ project activities include a regional approach to influenza surveillance in pigs, including serological screening for all virus subtypes, virus isolation, and full genomic sequencing. In Vietnam, data was collected from pigs raised in farming systems of low biosecurity and small to medium size in provinces where H5N1 HPAI in poultry had been reported. Researchers intended to determine whether the virus was also present in pig populations.

A total of 7,200 pigs from 90 breeding and fattening farms in Southern and Northern provinces were sampled during the first two survey rounds, conducted from January to September 2013 (see Fig. 1). To understand the dynamics of disease spread and to identify the associated risk factors, all farmers were interviewed using a standardized questionnaire.

On more than half of the sampled farms, one or more animals tested positive for Influenza A virus serology. In essence,

the virus had been in recent circulation on these farms. Live virus samples were detected on 15 farms, resulting in the isolation and propagation of H3N2 and H1N2 virus strains (see Fig. 1). DNA sequencing of the samples for genetic characterization is currently going on, along with expert analysis of data collected from the interviews; preliminary results appear encouraging. Further sampling will take place this year to collect more influenza viruses and monitor and possibly control influenza A viruses in swine.

The data collected through the EPT+ project will contribute to global influenza initiatives such as OFFLU and the EMPRES (Emergency Prevention System)-i Genetic Module. EPT+ also contributes to influenza risk assessment frameworks developed by the Centre for Disease Control in Atlanta and currently under development for the EFSA (European Food Safety Authority)-funded project FLURISK.

A VALUE CHAIN ANALYSIS OF SPENT HENS IN NORTHERN VIETNAM

Value chain analysis has proven useful in enhancing the understanding of both the production system dynamics and product flow, drivers and governance mechanisms through identification of product stakeholders and their inter-relationships. Existing knowledge suggests that trade in spent hens may be a risk factor for the introduction of HPAI H5N1, avian influenza A (H7N9) and other avian influenza viruses into Viet Nam. To understand the spent hen value chain in Northern Viet Nam, a study was conducted from July to September 2013, examining 15 provinces in Northeastern Vietnam. The study aimed to describe the value chains of Vietnamese spent hens, to describe the value chain of unofficially imported spent hens from China, and to identify where the two chains intersect.

Research methodologies utilized included a review of relevant literature, focus group discussions (FGD), key informant interviews, site visits and observations, value chain mapping and participatory stakeholder workshops at provincial and national levels.

A total of 33 value chain actors were interviewed, and 13 FGDs were conducted with 109 representatives in provincial and national workshops of 15 provinces of Northeastern Viet Nam.

The main findings of this study included:

- (i) Identification of the main spent hen trade roads from China to Viet Nam (see Fig. 1), and mapping of the value chain of spent hens (see Fig. 2);
- (ii) The following five main marketing routes are interconnected at several points (see Fig. 2):

Route 1	Large-scale chicken layer farms → Inter-provincial traders → Wholesalers → inter-district traders → end users
Route 2	Large-scale chicken layer farms wholesalers → inter-district traders → end users
Route 3	Producer → local middlemen → wholesalers → inter-district traders → retailers → end users
Route 4	Producer → local retailers/slaughter points
Route 5	Farmer → households in local community direct marketing for wedding parties and other festivals

- (iii) Spent hens value chains are dominated by wholesalers and middlemen who control approximately 80 - 90 per cent of the spent hen trade.



Figure 1: Map of main spent hen trade roads from China to Vietnam

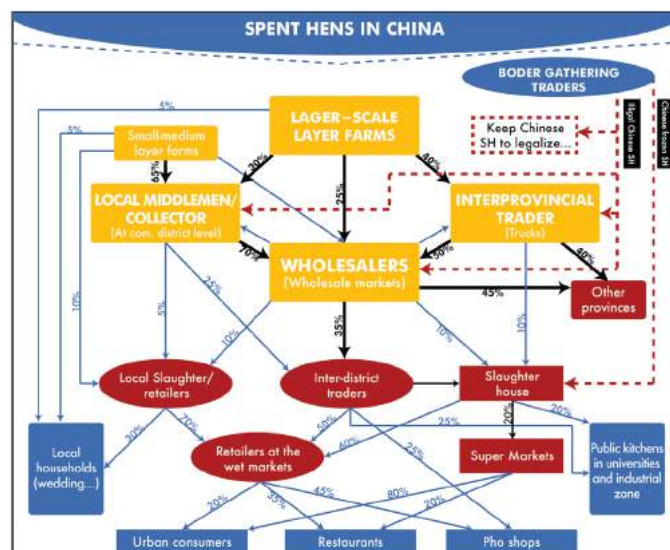


Figure 2: Value chain of spent hens in Northern provinces of Viet Nam



PRACTICING BIOSECURITY IN A DUCK HATCHERY



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