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# FAO Viet Nam Newsletter

Emergency Centre for Transboundary Animal Diseases (ECTAD)

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



## SWIFT ACTIONS TO SAFEGUARDING LIVELIHOODS FROM POTENTIAL INTRUSION OF H7N9 VIRUS

With the financial support from the United States Agency for International Development (USAID), FAO and the Department of Animal Health (DAH) are working to maintain vigilance against influenza A(H7N9) in Viet Nam as animal and human cases of H7N9 has been increasing in China since October 2016. While the virus has not been detected in Viet Nam, FAO and DAH have been mobilizing extra resources for early detection along the northern border. As influenza A(H7N9) does not cause clinical diseases in chickens, infected chickens appear healthy and cause extra challenges in disease detection.

In order to prevent the introduction or spread of influenza A(H7N9), FAO and DAH organized H7N9 simulation exercises to strengthen multi-sectoral preparedness and response in Ha Noi and border provinces. Provincial

steering committee members for avian influenza prevention and control were given with field scenarios including detection of H7N9-infected poultry sold in a local market, a suspected H7N9 human case within a household setting as well as in a hospital. These exercises helped validate the existing procedures which guide the authorities on the detection, prevention, risk mitigation, response related to influenza A (H7N9).

Additionally, FAO is rolling out pen-side test that enables on-site diagnosis to drastically shorten diagnostic time from 2 days to 2 hours. Also through increasing sampling frequency, it ultimately increases the sensitivity of the surveillance for H7N9 virus along the border provinces. FAO regional H7N9 risk communication materials were provided and localized into Vietnamese context to offer effective

and accurate communication with stakeholders and the public in case of an outbreak.

Field epidemiology and laboratory diagnostic capacity built through the long collaboration have resulted in significant improvement in DAH ability to diagnose avian influenza and effectively control the spread of HPAI in Viet Nam. This significantly contributed to safeguard Viet Nam from the risk of influenza A(H7N9) virus entering into the country and respond to the incursion should the virus be detected in Viet Nam. In close collaboration with the National Center for Veterinary Diagnostic and seven Regional Animal Health Offices, real-time surveillance for avian influenza including influenza A(H7N9) viruses is ongoing to ensure immediate detection of avian influenza viruses in Viet Nam.

# Welcome note

Xin Chao! Welcome to FAO ECTAD Viet Nam's October 2016 - April 2017 newsletter.

We had a busy period focusing on preventing H7N9 intrusion. So far no H7N9 virus has been detected in Viet Nam so I would like to congratulate DAH's fast and professional work. To know what H7N9 prevention works have been done, please read the article on the first page. We added some photos to provide a glimpse of the field work.

With more political attention and commitment gathering to reduce AMU and AMR, DAH, with technical support from FAO, will soon submit the draft National Action Plan to reduce AMU and AMR in food and aquaculture to the Ministry of Agriculture and Rural Development (MARD). We have featured a brief

overview of the National Action Plan to reduce AMU and AMR development, so you may read it on third page.

An animated film on why animal health intervention is crucial in preventing a potential pandemic was launched during this period. This will help explain our works and I would like to recommend it to colleagues who need an audio-visual presentation to convey ECTAD works in a fun way.

We have updated our surveillance plan for avian and swine influenza and started implementation. I would like to thank Laura, our former epidemiology expert, in developing the plan and building DAH capacity to implement it.

Recently we had a talk with one of our beneficiaries from the poultry farm biosecurity project. You can see how our projects impact small and medium

scale farmers who normally lack access to information on good farm management practices and biosecurity than big, industrial farms.

Please enjoy our Newsletter for October 2016 - April 2017, and let us know if you have any feedbacks.

Kind regards,  
Pawin Padungtod  
Senior Technical Coordinator



FAO ECTAD Viet Nam members participating in #AMRpledge campaign

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"Since emergency situations happen at the most unexpected, preparation is key to effectively respond to a disease outbreak. Based on the improved animal health capacity through our long collaboration, we are confident that Viet Nam is well prepared in case of an emergence of a new virus and pandemic that could seriously affect people and livelihoods," said Pawin Padungtod, the Senior Technical Coordinator of FAO Viet Nam.

1. H7N9 simulation: disinfecting areas exposed to H7N9 virus
2. Staff from National Centre for Veterinary Diagnosis holding the Pen-PCR machine
3. H7N9 simulation: Hanging the market closure poster
4. H7N9 simulation: Swabbing poultry from a live bird market



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## DEVELOPING THE DRAFT NATIONAL ACTION PLAN FOR REDUCTION OF AMU AND AMR IN FOOD AND AQUACULTURE

Uncontrolled use of antibiotics for disease control and treatment or growth stimulation in livestock, have increased resistance to antibiotics of bacteria that can reach humans through the food chain. Especially in Viet Nam, the problem of antimicrobial overuse or abuse in poultry and pig farms is worse due to weak law enforcement and drug-use monitoring. Realizing this current gap, FAO Viet Nam's Emergency Centre for Transboundary Animal Diseases (ECTAD) in collaboration with the Department of Animal Health (DAH) has been closely collaborating to address the issue and develop action plans to ensure food safety and minimize the public health impact of AMR.

Two stakeholder consultation workshops to develop the National Action Plan for reduction of AMU and AMR in Livestock production and aquaculture (NAP) was held. The workshops aimed to define the strategic actions and activities in detail and develop the operational plan for the implementation from 2017-2020. Organized with the financial support from the United States Agency for International Development (USAID), the workshop gathered participants from the Ministry of Agriculture and Rural Development (MARD), Ministry of Health (MOH), Ministry of Industry and Trade (MOIT), pharmaceutical and feed companies, research institutes, and development partners.

Steps to initiate and carry out as well as leading and participating agencies of each activity under the five objectives of the NAP were defined during the workshop. **The five objectives include**

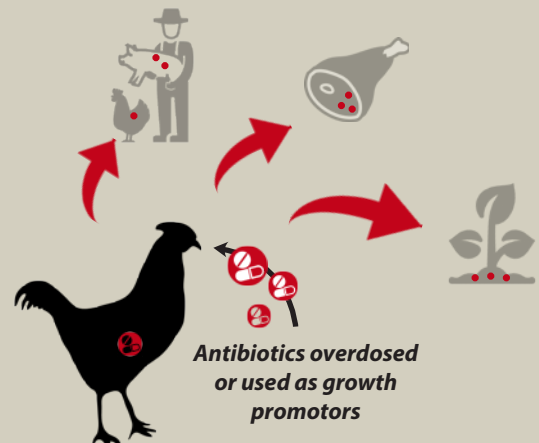
- 1) Enforce policy and governance related to AMR and AMU in livestock production and aquaculture;
- 2) Increase awareness on AMU and AMR among livestock and aquaculture professionals, producers and consumers;
- 3) Implement good treatment and husbandry practices in livestock production and aquaculture;
- 4) Monitor AMR, AMU and antimicrobial residues in food and aquaculture;
- 5) Facilitate inter-sectoral collaboration in the management of AMR risk.

**Priority strategic actions** proposed by the participants were

- 1) Improve the legal basis for AMR and AMU management in livestock and aquaculture;
- 2) Develop advocacy and communication tools and activities to increase awareness on AMR and AMU;
- 3) Implement good antibiotic use in livestock and aquaculture;
- 4) Quantify and characterize the occurrence of AMR in animals and along the food chain;
- 5) Quantify and characterize AMU in livestock and aquaculture production.

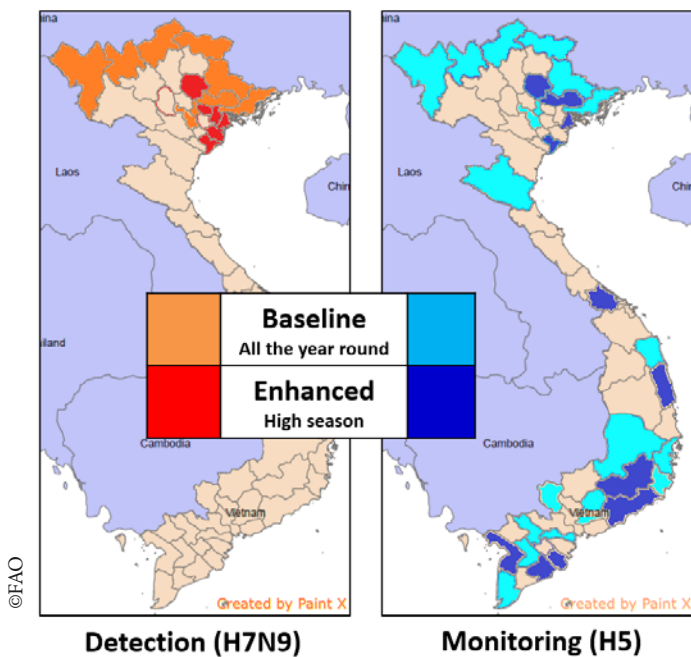
Currently the final version of the NAP is being edited to fit the government format and planned to be submitted soon to the Ministry of Agriculture and Rural Development.

### HOW CAN RESISTANCE SPREAD FROM THE FOOD CHAIN?



When antibiotics are improperly used to animals, it could result in developing bacteria, or superbugs, that can withstand antibiotics. They could be passed to people who often have direct contact with animals or could linger in improperly cooked meat. Also, fertilizer or water containing animal feces can spread antimicrobial resistant bacteria to food crops.

# New Avian Influenza and Swine Influenza Surveillance Design implemented in Viet Nam



*Selected provinces for AI surveillance activities*

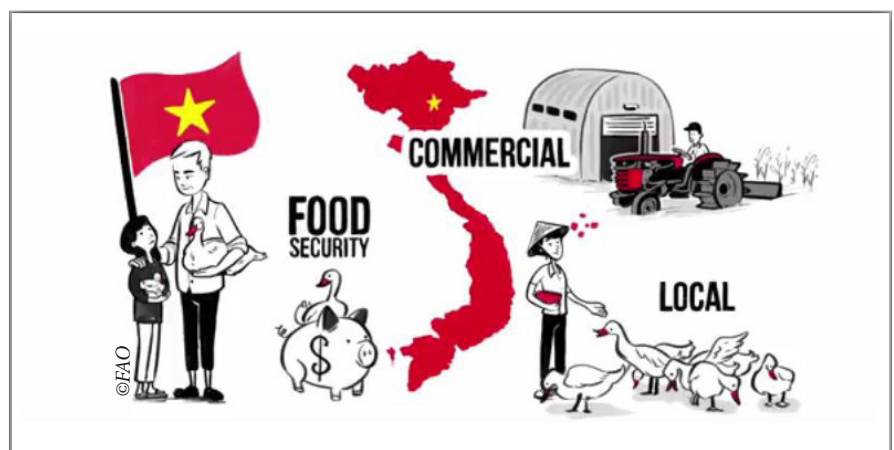
Influenza A viruses are capable of infecting a range of species including birds, pigs and humans and therefore it is important to quickly detect and understand the epidemiology of this virus to prevent mass death in livestock and stop it from transmitting to humans.

After long years of collaboration between FAO ECTAD Viet Nam and Department of Animal Health (DAH) in surveillance activities, starting with the initial focus on H5N1 in poultry, the two team players have expanded its program to encompass additional viruses of concern in pig as well as poultry and started its implementation of an updated surveillance plan. This new surveillance plan, funded by the USAID, for both avian influenza (AI) and swine influenza (SI) will enable Viet Nam to effectively detect the virus early, respond quickly, and prevent zoonotic threats and monitor viruses and epidemiology to further inform and guide management interventions.

The new AI and SI surveillance plan has three clearly defined objectives including early detecting H7N9 in live bird markets, understanding the epidemiology and the evolution of HPAI H5 viruses in poultry and understanding the gene pool and evolution of influenza A in pigs and poultry. By using a risk based approach, new provinces have been selected for the AI surveillance, based on the history of AI detection within the country. Animal Health officers are also using new sampling design by sampling both environmental and pooled swabs in high risk areas like Live Bird Markets. Surveillance activities will be held throughout the year and during 6 months of flu season, additional samples will be tested more frequently.

After sampling, the result will be reported once a month. In flu seasons, officers will report once more, making it twice a month to thoroughly monitor the situation. Also, under the new surveillance program, the laboratory testing algorithm has been updated and included additional hemagglutinin (H) subtyping and sequencing to better characterize the collected viruses.

“The updated surveillance plan will equip Viet Nam’s animal health system to be more sophisticated and efficient in disease detection and response as surveillance will be more frequent, thorough and targeted to the current areas of high risk.” said Pawin Padungtod, the Senior Technical Coordinator of FAO ECTAD Viet Nam.



## FAO's animal health intervention in a nutshell

FAO's Emergency Centre for Transboundary Animal Diseases (ECTAD) Viet Nam launched a fun and easy animated film to explain animal health intervention in preventing zoonotic diseases to safeguard livelihoods and ultimately a human health threats.

Link for video: <https://www.youtube.com/watch?v=R9alDSEZGPU>

## From #BetterPractice to #BiggerSmile

One sunny day at Luc Ngan district in Bac Giang Province, farmer Bang Van Dao generously greeted his neighbors and FAO staff members to present his hatchery and chicken farm biosecurity model to inspire good biosecurity measures to fellow farmers in his district. As a husband and father of 2 children, Mr. Bang Van Dao is a full-time hatchery and chicken parent flock farmer and one of the beneficiaries from FAO's improvement of farm management and biosecurity practices project, funded by the United States Agency for International Development (USAID).

"The commune animal health worker told me there was going to be a free 4-day biosecurity training course in Bac Giang. That's how I first got to know about this project. I was glad to know this was happening because I never took any biosecurity and management courses since I started farming." He continued "Previously, I tried to study by myself by looking up books but they were too complicated and difficult to follow. However, with the training from poultry production training experts, it was really easy to understand and follow the biosecurity measures."

In collaboration with the Department of Livestock Production of the Ministry of Agriculture and Rural Development (DLP-MARD), FAO Viet Nam's Emergency Centre for Transboundary Animal Diseases (ECTAD) has trained 20 master trainers in Northern Viet Nam to educate and inspire small and medium scale farmers like Bang Van Dao to roll out clean and safe procedures in hatcheries and parent flock farms. This training focuses on how to keep a healthy chicken flock for disease prevention and better productivity and how to manage hatcheries and fertile eggs to improve day-old-bird quality.

"After implementing good management practices and biosecurity measures for three months, I'm actually starting to see results," said Bang Van Dao proudly. "According to my hatchery

records, we had about 3.2% of increase in hatchability rate. Before, not all the setting eggs managed to hatch. And even if they did, not all chicks ended up surviving during the first few days. However, after applying easy biosecurity methods like keeping the hatchery area clean, separating incubation and hatching area and fumigating eggs, hatched chicks are so much healthier now. I'm pretty satisfied with the results during the first three months, and I'm looking forward to see how much it will improve in the future."

After Bang Van Dao showed the new hatching machine and the fumigation procedures, he took his neighbor farmers to the garden area where his parent flock chickens were freely running around in the garden.

"In the garden area, we renovated and covered the water drainage with cement to make it better to drain. As you can see, the farm is dry and clean and the flock looks a lot healthier too. The cleaner environment makes it more pleasant for my wife and me to work since it smells less." He added "The new feeders and drinking water system also keeps the food and water more hygienic from feces and dirt, enabling the flock to have uncontaminated food and drink."



Bang Van Dao and his wife, beneficiaries of FAO's poultry farm biosecurity project

Following successful stories like Bang Van Dao's, FAO ECTAD Viet

Nam is currently expanding the project to seven other models in Northern Viet Nam, and training more poultry production master trainers for Southern Viet Nam. From these activities, FAO ECTAD Viet Nam aims to kill two birds with one stone; to effectively prevent avian influenza at the source and improve livelihoods at the same time.

"Receiving the training was such a turning point for my business and I hope to motivate my neighbors to apply the biosecurity methods and experience good results like I did. In the future, I would like to expand my business and be able to provide a better life to my family," Bang Van Dao said.



**Food and Agriculture Organization  
of the United Nations**

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
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**ECTAD** Emergency Centre  
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