# WORKSHOP REPORT

## Research to policy: Improving animal disease prevention and control in Vietnam


17-18 October 2024
Ha Long city, Quang Ninh province, Vietnam

Nông nghiệp Việt Nam · ILRI International Livestock Research Institute · CGIAR Initiative on One Health · ASEAN-CGIAR Innovate for Food and Nutrition Security · Ministry of Agriculture, Food and Rural Affairs

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# Acknowledgements

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The workshop was co-hosted by the Department of Animal Health (DAH), the National Institute of Veterinary Research (NIVR), the International Livestock Research Institute (ILRI) and the Vietnam Agriculture Newspaper. The authors thank Thanh Nguyen and Hanh Le at ILRI for their support in organizing this workshop, and participants for their contributions to discussions.

# Abbreviations and acronyms

| | |
|---|---|
| ASF | African swine fever |
| DAH | Department of Animal Health |
| FAO | Food and Agriculture Organization of the United Nations |
| ICT | Information & Communications Technologies |
| ILRI | International Livestock Research Institute |
| ISO | International Organization for Standardization |
| NAVETCO | National Veterinary Joint Stock Company |
| NIVR | National Institute of Veterinary Research |
| NPAPC | National Plan for African Swine Fever Prevention and Control |
| SAPLING | CGIAR Initiative on Sustainable Animal Productivity |
| VAHIS | Vietnam Animal Health Information System |

# Executive summary

Vietnam's livestock sector is an important component of the country's economy. However, it faces significant challenges, particularly from animal diseases like African swine fever (ASF). ASF is a dangerous infectious disease that occurs in pigs. Although ASF does not transmit to human, it causes great loss to the pig industry due to its rapid spread and potential to kill the entire herd, causing devastating consequences to the agricultural industry and the socio-economy.

To control the spread and consequences of ASF, the Department of Animal Health (DAH), the National Institute of Veterinary Research (NIVR), the International Livestock Research Institute (ILRI) and partners have carried out research and project activities in Vietnam in this field. As the country continues to cope with these challenges, the integration of research findings into policy becomes increasingly important for effective disease prevention and control. To address this, a workshop on 'Research to policy: Improving animal disease prevention and control in Vietnam' was organized on 17-18 October 2024, in Ha Long City, Quang Ninh Province. This event was co-hosted by DAH, NIVR, ILRI and the Vietnam Agriculture Newspaper.

Objectives of the workshop were to:

- Share recent research findings on ASF prevention and control in Vietnam and globally, with a focus on the latest developments in ASF vaccine research and immunology;
- identify pathways to strengthen the linkages between research and policy, ensuring that scientific evidence directly informs policy decisions;
- develop actionable recommendations to be integrated into the upcoming National Plan for African Swine Fever Prevention and Control (NPAPC), with a view to enhance the effectiveness of ASF control measures.

# Introduction

Vietnam's livestock sector plays a crucial role in the national economy, but it faces substantial challenges, particularly from animal diseases such as African Swine Fever (ASF). ASF, an infectious disease affecting pigs, does not spread to humans but causes severe losses to the pig industry due to its rapid spread and high mortality rate, severely impacting agriculture and the broader economy.

To address these challenges, the Department of Animal Health (DAH), the National Institute of Veterinary Research (NIVR), the International Livestock Research Institute (ILRI), and other partners have conducted research and projects aimed at controlling ASF in Vietnam. As the country continues to battle ASF, integrating research findings into policy is essential for effective disease management. To facilitate this process, a workshop titled "Research to Policy: Improving Animal Disease Prevention and Control in Vietnam" was held on October 17-18, 2024, in Ha Long City, Quang Ninh Province. The event was co-hosted by DAH, NIVR, ILRI, and the Vietnam Agriculture Newspaper.

The objectives of the workshop were to:

- Share recent global and national research findings on ASF prevention and control, with a focus on advancements in ASF vaccine development and immunology.
- Strengthen the connection between research and policy, ensuring that scientific evidence informs policy decisions.
- Develop actionable recommendations for the National Plan for African Swine Fever Prevention and Control (NPAPC) to improve the effectiveness of ASF control measures.

Key messages from the workshop included:

- ASF is one of the five major livestock challenges in Vietnam;
- the existence of multiple ASF virus variants calls for further research and enhanced surveillance;
- effective communication is vital during outbreaks;
- and greater collaboration between stakeholders in livestock, research, and vaccines is necessary for improved disease management.

The workshop concluded with recommendations for updating Vietnam's National Plan on ASF Prevention and Control (2026-2030). Participants emphasized the need to strengthen institutional capacity, mobilize private sector expertise, and adopt technology-driven solutions.

Key follow-up actions include:

- Scaling up digital tools for disease reporting and monitoring.
- Organizing training programs to build the capacity of local veterinary staff.
- Promoting cross-border research collaborations to address ASF risks.

Additionally, it is recommended that local authorities conduct regular inspections and monitor ASF virus circulation and mutations, with support from international organizations and businesses. DAH and partners are committed to providing technical and material support to localities to enhance

epidemiological mapping and testing capacity for dangerous livestock and poultry diseases, forming the foundation for robust disease prevention efforts.

# Workshop highlights

## Day 1

### Opening session


*From right: Shirley Tarawali, ILRI's assistant director general, Nguyen Van Long, DAH's director general and Pham Thi Ngoc, NIVR's acting director (photo credit: ILRI/Vu Ngoc Dung).*

The workshop was attended by 58 participants, including 38 men and 20 women, from various research institutes, the private sector, universities, and international organizations.

In her opening remark, Shirley Tarawali, ILRI's assistant director general emphasized the crucial role of Vietnam's livestock sector, which accounts for 25% of the country's agricultural GDP and sustains millions of rural livelihoods. She acknowledged the severe impact of ASF, a disease that has devastated pig populations worldwide, including Vietnam's pig industry, one of the largest pork producers globally with over 30 million pigs. Tarawali highlighted the need for enhanced collaboration between researchers, policymakers, and stakeholders to ensure that scientific evidence translates into actionable strategies. She urged participants to actively engage in discussions, noting that the outcomes from this workshop would directly contribute to Vietnam's efforts to build a more resilient livestock sector.

Nguyen Van Long, DAH's director general provided an overview of Vietnam's battle against ASF, which has posed challenges since its first outbreak in 2019. He highlighted several key actions led by DAH:

- Issuing technical guidelines and regulations to curb ASF outbreaks.
- Developing and implementing the National Plan on ASF Prevention and Control (2020–2025).
- Supporting the commercial production of two locally developed ASF vaccines by NAVETCO and AVAC, which are now used domestically and exported internationally.

He stressed the importance of multisectoral collaboration in disease prevention, bringing together government agencies, research institutes, private sector, and international partners.

## Session 1: Keynote presentations

The first session provided an overview of the animal health situation in Vietnam, led by DAH. The presentation highlighted the 5 pressing issues faced by the livestock sector – H5N1, rabies, foodborne diseases, lumpy skin diseases, and ASF – and emphasized the need for international cooperation and scientific collaboration to combat these challenges.

For example, for 2024, as of October, there have been 1,138 outbreaks of ASF in 47 provinces and cities, with more than 70,000 pigs killed. Vietnam has successfully developed a commercial vaccine and millions of vaccines have been sold already for ASF. However, in recent years, ASF has increased substantially compared to previous years, with thenorthern region hit the hardest by these outbreaks.

Several factors explain the rise in livestock diseases. DAH identified the primary issue as the low vaccination rate across localities. Additionally, the unregulated trade of sick or potentially infected animals and the improper management during slaughter and transportation have further exacerbated the situation.

**Presentation 1: Overview of animal health disease situation in Vietnam (Pham Thanh Long, DAH)**

*Pham Thanh Long, DAH provides an overview of animal disease situation in Vietnam (photo credit: ILRI/Vu Ngoc Dung).*

The government focuses on controlling five key animal diseases: avian influenza, ASF, foot-and-mouth disease, lumpy skin disease, and rabies. Key actions include monitoring these diseases, guiding and overseeing national control programs, tracking disease spread, improving testing and information sharing, supporting disease-free zones, and working with international organizations like FAO, CDC USA, USDA, DTRA, PATH, and WCS to prevent and manage outbreaks.

## Session 2: Research updates on ASF

This session featured key findings from ongoing ASF research. NIVR and ILRI presented updates on their joint studies, including molecular and pathological characterization of ASF virus strains circulating in Vietnam. AVAC Vietnam JSC provided insights into the development and application of ASF vaccines, which have been implemented in the field but still facing challenges regarding efficacy and potential risks. The key message was that there are many genotypes complicates vaccine development or implementation and there is urgent need to understand this virus. Data from 2024 for example shows that ASF is evolving due to virus mutation or recombination.

**Presentation 2: ASF research activities of the virology department in NIVR (Dao Duy Tung, NIVR)**


*Dao Duy Tung, NIVR shares ASF research by NIVR (photo credit: ILRI/Vu Ngoc Dung).*

Funded by RDA-NIAS, several research projects on ASF in Vietnam investigated the virus's gene expression, clinical and epidemiological impacts, transmission pathways, and immune response. Key findings included that the ASF virus strain studied was classified as "from peracute to acute form." The research showed that oral and nasal routes are critical for ASF transmission within herds, with oral fluid samples collected via rope-based methods proving useful for detection. ASFV was also found in various environmental samples, such as aerosol, feed, and water, which could serve as risk factors for transmission. Additionally, ear tissue from deceased pigs, collected using an ear-notcher, was identified as a potential alternative specimen for ASFV detection.

**Presentation 3: ASF research activities by National Centre for Veterinary Diagnosis (Nguyen Hoang Dang, NCVD)**

The team sequenced ASFV strains and tested their virulence. Pigs infected with the 2024 recombinant ASF strain (genotype I+II) died within 5-6 days, while those infected with the 2024 genotype II strain died in 4-10 days. Pigs infected with the 2019 genotype II strain had similar outcomes. The 2024 ASF strains were highly virulent, similar to the 2019 strain, causing similar clinical signs, lesions, and high viral loads in blood and organs. Some pigs developed antibodies after 10 days. Recommendations include continued monitoring of ASF strains, evaluating the virulence of new variants, testing ASF vaccine efficacy, and assessing vaccine use in the field.

**Presentation 4: Molecular and pathological characterization of ASFV strains in Vietnam (Le Van Phan, VNUA)**

The first case in Vietnam was reported on February 1, 2019, in Hưng Yên, and within seven months, it spread to all 63 provinces, leading to the culling of at least 6 million pigs. In Vietnam we have the type II – highly virulent strain.

**Presentation 5: ASF technical work in Kenya-ILRI HC (Anna Lacasta, ILRI)**
ASF technical work in Kenya by ILRI focuses on several key areas: developing challenge models for various ASFV isolates, creating recombinant live attenuated vaccines based on African genotypes, and working on subunit vaccines targeting ASF through antibodies and cytotoxic T lymphocytes (CTLs). The work also includes in vitro assessments of immunological responses, testing ASF diagnostics, and studying the epidemiology of ASF in Africa.

**Presentation 6: Development and evaluation of a live attenuated vaccine candidate against ASFC genotype 2 in Vietnam (Truong Quang Lam, VNUA)**
This study aimed to develop a live-attenuated vaccine against African swine fever virus (ASFV) genotype 2, circulating in Vietnam. Five mutant strains were generated through serial passages in porcine alveolar macrophages (PAMs) and screened in vivo, with two strains showing promising attenuation selected for further research. Extensive genomic modifications were observed in the VNUA-ASFV-LAVL3 strain, including the deletion of 21 genes (10 coding sequence genes and 11 non-coding genes) and 65 point mutations across 40 known and unknown genes. Genetic stability of the deletions was confirmed through multiple cell culture passages, with PCR analyses validating the specific gene deletions in comparison to the wildtype virulent strain (VNUA-ASFV-05L1). The VNUA-ASFV-LAVL3 strain demonstrated attenuation and stability, offering potential as a safe and effective vaccine candidate to protect against ASFV genotype 2 and emerging variants in Vietnam.

**Presentation 7: Update on AVAC ASF Live Vaccine (Nguyen Van Diep, AVAC)**


*Nguyen Van Diep, AVAC director gives an update on their live vaccine product (photo credit: ILRI/Vu Ngoc Dung).*

The AVAC ASF live vaccine is safe for piglets from 4 weeks old, with no or rare virus shedding and no transmission to other pigs. It does not affect pig growth and provides strong protection, with immunity developing in two weeks and lasting over five months. The vaccine protects more than 90% of vaccinated pigs and has minimal impact on other vaccines' effectiveness. Over 2.9 million doses have been supplied, with more than 2.3 million doses distributed domestically in Vietnam. Challenges include hesitation toward the new vaccine, high vaccine prices, the lack of a WOAH standard, and emerging ASF strains.

**Presentation 8: ASF vaccine development in NIVR (Bui Nghia Vuong, NIVR)**
Only 2 kinds of vaccines are available commercially (AVAC, Navetco), however, there are concerns that current vaccines may not be effective against hybrid strains. In testing the candidate vaccine MEC-01, we found that it successfully protected pigs from virulent ASFV, with no clinical signs,

viremia, virus shedding, or horizontal transmission observed in vaccinated sows. The MEC-01 vaccine can be safely administered to sows at 8 weeks of pregnancy without affecting the fetus. Further evaluations are needed to commercialize this vaccine in Vietnam.

## Session 3: ASF policies

**Presentation 9: National plan for the prevention and control of ASF from 2020-25 (Pham Thanh Long, DAH)**

The goal is to monitor for early signs of ASF, take quick and effective action to prevent and control the disease, and promote biosecurity and disease prevention in livestock farming. The goal is to reduce economic losses, stabilize pork prices, protect the environment, and maintain Vietnam's trade in animals and animal products.

The day concluded with a panel discussion that brought together representatives from DAH, ILRI and AVAC Vietnam JSC. The discussion focused on identifying gaps in current ASF policies, exploring how research can address these gaps, and formulating recommendations for the NPAPC (2026-2030). The panelists addressed key challenges and proposed solutions for improving animal disease prevention and control.

Key points discussed included:

- The importance of clinical surveillance to monitor vaccine performance, particularly the potential for reversion to virulence, and the need for sampling programs to identify issues arising in field conditions.
- Strengthening international collaboration to enhance scientific exchange and cooperation, with ILRI playing a key role in supporting Vietnam's efforts in ASF control and broader disease management. Discussions emphasized the need to identify Vietnam's specific needs and areas where ILRI can provide targeted assistance.
- Building a collaboration framework involving livestock producers, government authorities, researchers, and private enterprises to ensure a comprehensive approach to disease control.
- A commitment from DAH to work with all stakeholders to integrate Vietnam's veterinary system into global networks.
- Addressing laboratory capacity gaps. There is an urgent need to engage public-private partnerships to leverage data from private labs and enhance disease surveillance capabilities.

Key points raised by participants included:

- *International Organization for Standardization (ISO) certification for private sector participation*: Participants emphasized the need for ISO certification and proper licensing to enable private laboratories to participate in disease surveillance. Currently, private labs are only allowed to handle a limited number of diseases, primarily classical ones. For high-risk infectious diseases, there are significant technical and regulatory barriers.

- *Private laboratory registration and oversight*: Participants highlighted the inconsistencies in managing private laboratories. If a lab specializes in a single field of testing, it can register with DAH. However, for multi-disciplinary testing, registration must go through the Ministry of Science and Technology, creating challenges. Furthermore, private labs often fail to report positive cases to authorities promptly, as many clients prefer to avoid inclusion in official

records. This non-compliance undermines the surveillance system, and new regulations are being drafted to penalize labs that hold back critical information.

- *Capacity and biosecurity of private labs*: Many private labs face capacity challenges, with some registering up to 300 testing criteria while employing a small number of staff (e.g., 10 individuals). Developed countries typically permit labs to test only specific diseases based on their personnel, biosecurity, and biosafety standards. Participants stressed the need for a legal framework to ensure that private labs meet these requirements before participating in national disease surveillance.

- *Sample handling and transparency*: Issues with sample handling and data integrity were also discussed. For instance, some farms send samples via informal methods (e.g., motorbike delivery) and alter sender information to avoid traceability. Additionally, some farms demand compensation from labs for losses incurred during waiting periods for test results.

- *Public-Private collaboration in data sharing*: Participants agreed on the importance of fostering collaboration between public and private sectors to address gaps in veterinary service delivery. However, this requires better oversight mechanisms and trust-building to share data transparently while ensuring biosecurity and managing pathogen leakage risks.

- *Digital innovations in veterinary systems*: Participants shared insights into Vietnam's ICT4Health initiative, which integrates digital technology into the veterinary extension system. With a network extending to the district level, efforts are ongoing to establish a community-based extension system and build a veterinary database to support disease monitoring in the local context.

- *International collaboration:* Participant from China highlighted the importance of bilateral and regional collaboration between Vietnam and China in ASF control. Vietnam’s success in developing and exporting ASF vaccines has positioned it as a leader in the field. However, the border between the two countries presents ongoing transmission risks. He recommended leveraging Vietnam’s national and provincial laboratory networks to introduce vaccines and conduct joint research to mitigate cross-border ASF outbreaks.


*Plenary discussion at the meeting (photo credit: ILRI/Vu Ngoc Dung).*

## Day 2

The second day began with a recap of key takeaways from Day 1, setting the stage for discussions on approaches to strengthen animal health prevention and control. These messages included: ASF being one of 5 key livestock challenges in Vietnam; lots of variants of ASFV calling for further research and enhanced surveillance; importance of communication during outbreaks; and need for enhanced collaboration in management of diseases between stakeholders in livestock, research, and vaccines.

### Session 4: Strengthening animal health surveillance

Presentations in this session addressed national animal health surveillance systems, early warning systems, and the application of ICT4Health solutions. DAH shared the Vietnam Animal Health Information System (VAHIS) – the national online disease reporting system – highlighting successes of the shift from a paper to online system but still facing challenges relating to willingness to report. ILRI shared insights from capacity building and application of Information & Communications Technologies (ICT), particularly at small-scale farms in Lao Cai and Hoa Binh provinces. After some initial success, the goal is to support provinces in widely adopting this effort. The Food and Agriculture Organization of the United Nations (FAO) highlighted the role of early warning systems in preventing disease outbreaks such as EMPRES but mention it Is not possible to do active surveillance for all diseases – need to prioritize them and jointly collaborate on this. Finally, the CGIAR Initiative on Sustainable Animal Productivity (SAPLING) project was introduced, which aimed to build capacity of animal health workers in biosecurity. Most farmers trained reported adopting new technologies as well as farmers who did not attend the training due to spillover effects.

### Group discussion: Enhancing One Health and ICT approaches

Participants engaged in group discussions to map current interventions and identify lessons learned in animal health surveillance.

Report from Group 1:

- Lack of strong connections between private laboratories and inter-sectoral agencies.
- Insufficient numbers of local veterinarians, veterinary experts, and early warning systems.

- Socio-cultural factors affecting disease outbreak response.
- Slow approval processes and complicated disbursement procedures, delaying research projects.

Report from Group 2:

- Emphasis on improving disease surveillance under Circular 07.
- Limited budgets in some provinces for effective disease surveillance; budget increases are needed.
- Strengthening the veterinary system to improve disease monitoring and increasing compensation for support staff.
- Enhancing mechanisms for information sharing, including mandatory livestock registration, applying digital technology, and enforcing regulations.
- Improving policies to support laboratory operations.

# Conclusions and next steps

The workshop concluded with a set of recommendations to inform the development of the next iteration of Vietnam's *National Plan on ASF Prevention and Control (2026–2030)*. Participants highlighted the importance of strengthening institutional capacity, mobilizing private sector expertise, and adopting technology-informed solutions.

Key follow-up actions include scaling up digital tools for disease reporting and monitoring, organizing training programs to support capacity development for local veterinary staff, and explore joint research and collaborations, particularly across borders where ASF can potentially spread.

Furthermore, it is recommended that local authorities conduct regular inspections and actively monitor virus circulation and mutations, with support from international organizations and collaboration with businesses.

DAH and partners are committed to providing both technical and material support to help localities build and refine epidemiological maps of dangerous livestock and poultry diseases, which will serve as a foundation for disease prevention efforts and enhance testing capacity across regions.

# Agenda

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| Day 1: October 17, 2024 | | |
| 08:30 | Travel from Hanoi to Ha Long Bay | |
| 10:30 - 13:00 | Arrival & lunch | |
| 13:00 – 13:30 | Registration | |
| 13:30 – 13:50 | Welcome and opening by leaders<br>▪ Opening remarks by DAH<br>▪ Opening remarks by NIVR<br>▪ Opening remarks by ILRI<br>▪ Introduction and objectives of the workshop | MC: PT Long, DAH |
| | Co-chairs: Leaders of DAH, NIVR and ILRI | |
| 13:50 – 14:20 | Session 1: Keynote<br>▪ Overview of the animal health disease situation in Vietnam (20 min) – DAH<br>Q&A (10 min) | Moderator: Vuong, NIVR<br>Co-chair: ILRI, DAH and NIVR |
| 14:20 – 15:10 | Session 2: ASF research studies and vaccine update<br>▪ Overview of NIVR - ILRI research on ASF (10 min) – NIVR<br>▪ ASF and research update (10 min) – NCVD<br>▪ Molecular and pathological characterization of African Swine Fever Virus (ASFV) strains circulating in Vietnam (10 min) - VNUA<br>▪ ASF technical work in Africa (ILRI HQ) (10 min) – ILRI Kenya<br>Q&A (10 min) | Moderator: Vuong, NIVR<br>Co-chair: ILRI, DAH and NIVR |
| 15:10 – 15:30 | Coffee break and group photo | |
| 15:30 – 16:30 | ▪ Vaccine update (10 min each)<br>○ AVAC Vietnam JSC<br>○ NIVR<br>Q&A and discussion (30 min) | |
| 16:30 – 17:30 | Session 3: ASF policies<br>▪ Setting the scene: National Plan on ASF Prevention and Control (NPAPC), period 2020-2025 (15 min) –DAH<br>▪ Panel discussion (45 min)<br>○ What are the gaps in the current ASF policies?<br>○ How can research support overcoming these gaps?<br>○ What are the recommendations for the NPAPC for 2026-2030?<br>○ From your view, what is the one thing you would mention to enhance ASF control?<br>○ Questions from the audience | Moderator: Sinh, ILRI<br><br>Panelists:<br>• DAH<br>• DLP<br>• IPSARD<br>• NAEC<br>• NIVR |
| 17:30 – 17:45 | Wrap-up of Day 1 | MC: PT Long, DAH |
| 18:30 | Dinner | |
| Day 2: October 18, 2024 | | |
| | Co-chairs: Leaders of DAH, NIVR and ILRI | |
| 08:00 – 08:15 | Recap Day 1 | MC: PT Long, DAH |
| 08:15 – 09:30 | Session 4: Integrated approaches to strengthen AH prevention and control<br>• National AH surveillance systems (15 min) – DAH | |

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| | • AH early warning system (15 min) – FAO<br>• ICT4Health and AH (15 min) – ILRI<br>• AH biosecurity application targeting small-scale farms (15 min) – NIVR<br>Q&A and discussion (15 min) | |
| | Coffee break during group discussion session | |
| 09:30 – 10:15 | Session 5: Group discussion<br>Topic: Enhance One Health, ICT and biosecurity to strengthen AH surveillance<br>▪ Mapping of current interventions to strengthen AH?<br>▪ What are the lessons learned, and what are the gaps?<br>▪ Which mechanism, and policy is needed to address these gaps? | Bus stop (groups moving to share information)<br><br>MC: PT Long, DAH |
| 10:15 – 10:30 | Wrap up & closing | DAH/NIVR/ILRI |
| 10:30 – 11:00 | Hotel check out | |
| 11:30 | Move to boat for sightseeing & lunch | |
| 18:00 | Return to Hanoi | |

# List of participants

| Ref. | Organization | Sex | Full name | Title/Position |
|---|---|---|---|---|
| 1. | Department of Animal Health (DAH) | M | Nguyễn Văn Long | Director General |
| 2. | National Institute of Veterinary Research (NIVR) | F | Phạm Thị Ngọc | Acting Director |
| 3. | Department of Animal Health (DAH) | M | Phạm Thành Long | Officer, Epidemiology division |
| 4. | Department of Animal Health (DAH) | M | Võ Duy Thành | Staff, Epidemiology division |
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| 6. | National Centre for Veterinary Diagnostics | M | Ngô Văn Bắc | Director |
| 7. | National Centre for Veterinary Diagnostics | M | Nguyễn Hoàng Đăng | Deputy Head, Virology Department |
| 8. | National Agricutural Extension Center | M | Nguyễn Văn Hưởng | Deputy head |
| 9. | Pig Research Center, National Institute of Animal Sciences | M | Trịnh Quang Tuyên | Deputy Director of Thuy Phuong |
| 10. | National Institute of Veterinary Research (NIVR) | M | Bùi Nghĩa Vượng | Head, Virology Department |
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| 14. | National Institute of Veterinary Research (NIVR) | F | Trương Thị Quý Dương | Officer |
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| 24. | Hoa Binh Sub-department of Animal Health | F | Cao Thanh Hà | Officer |
| 25. | Hung Yen Sub Department of Animal Health | M | Hoàng Văn An | Vice Director (in charge) |

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| 26. | Lao Cai Sub-Department of Animal Health | M | Phạm Bá Uyên | Director |
| 27. | Nghe An Sub Department of Animal Health & Livestock Production | M | Đặng Văn Minh | Director |
| 28. | Son La Sub-department of Animal Health | M | Nguyễn Ngọc Toàn | Director |
| 29. | Thai Nguyen Sub-Department of Animal Health | M | Nguyễn Văn Hải | Deputy head |
| 30. | Hue Sub-Department of Animal Health | M | Trương Công Thành | Vice Director |
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| 36. | Food and Agriculture Organization (United Nations) | F | Phạm Thị Bích Ngọc | Animal Health Early Warning Specialist |
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| 40. | College of Veterinary Medicine, Yunnan Agricultural University | M | Wengui Li | Professor |

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| 41. | University of the Philippines Los Baños | M | Rico C. Ancog | Dean, School of Environmental Science and Management |
| 42. | International Livestock Research Institute (ILRI) | F | Shirley Tarawali | Assistant Director General |
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| 51. | International Livestock Research Institute (ILRI) | F | Nguyễn Thị Quỳnh Chi | Regional communications officer |
| 52. | International Livestock Research Institute (ILRI) | F | Lê Mỹ Hạnh | Finance & administrative associate |
| 53. | International Livestock Research Institute (ILRI) | M | Đặng Xuân Sinh | Post-doc scientist |
| 54. | International Livestock Research Institute (ILRI) | M | Lương Hùng Nam | PhD research fellow |
| 55. | International Livestock Research Institute (ILRI) | F | Nguyễn Thị Thu Hiền | Research officer |

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| 56. | International Livestock Research Institute (ILRI) | F | Nguyễn Phương Mai | Operation & event organization collaborator |
| 57. | International Livestock Research Institute (ILRI) | M | Nguyễn Thành Trung | Consultant, ICT4Health project/ VNUA lecturer |
| 58. | International Livestock Research Institute (ILRI) | F | Mai Thị Ngân | Consultant, ICT4Health project/ VNUA senior lecturer |

# Media clippings

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