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VIETNAM

Biothreat Reduction: Situation update

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VIETNAM

Quick Facts:

Land Area: 331,690 square kilometers
Official Language: Vietnamese
Currency: Vietnamese Dong (VND)
Capital: Hanoi
Population(2026 est.): 103,439,000
Government: Socialist republic with a one-party state (Communist Party of Vietnam)
Ethic: 54 ethnic groups, the majority Kinh (>85%) and 53 ethnic minority groups.
GDP/capital: 4.717 USD (2024)



1. Overview of National Mechanisms & Governance

A. Governance: Vietnam has developed and implemented several national One Health action plans to strengthen biological risk management and prevent zoonotic diseases such as avian influenza and rabies.

B. Mechanisms: Veterinary and public health laboratories in Vietnam are strengthening biosafety and biosecurity capacities, including laboratory sample management and biosafety procedures for avian influenza, ASF, and SARS-CoV-2 testing.

C. Private sector: Vietnam has enhanced coordination among the animal health, public health, and security sectors in disease surveillance, information sharing, and outbreak response, particularly during avian influenza and COVID-19 outbreaks.

D. Establishment of Steering committees, technical working groups: Vietnam regularly conducts training courses, workshops, and simulation exercises on biosafety, disease outbreak response, and biological risk management with support from WOAH, FAO, and WHO.

2. Legal & Policy Frameworks

A. Existing laws/regulations /status: Vietnam has strengthened its legal framework on biosafety and biosecurity through the Law on Prevention and Control of Infectious Diseases (2007), the Law on Animal Health No. 79/2015/QH13, and Government Decree No. 103/2016/NĐ-CP on biosafety in laboratories

B. Roles of regulatory authorities: Competent authorities in Vietnam, including the MAE, MH, Ministry of National Defence, coordinate disease surveillance, lab management, and outbreak response under Law on Animal Health (2015) and Decree No. 103/2016/NĐ-CP, particularly for AI, ASF, rabies, and COVID-19 preparedness.

C. Harmonisation with ASEAN/WOAH/WHO guidelines: Vietnam is aligning its biosafety and biosecurity system with international standards through the OH Partnership Framework and ASEAN cooperation mechanisms, while applying biosafety lab classification and management in accordance with Decree No. 103/2016/NĐ-CP and relevant MH regulations on infectious disease testing labs

3. Current Situation in Biothreat Landscape

- Vietnam faces several important biological risks, including zoonotic diseases such as AI (H5N1, H5N6), rabies, and Strep. suis infection, as well as transboundary animal diseases (TADs) including ASF, FMD, and lumpy skin disease (LSD).

- Vietnam has experienced several major outbreaks relevant to biosafety and biosecurity, including HPAI outbreaks since 2003, ASF outbreaks since 2019, and the COVID-19 pandemic. These events strengthened national awareness on l biosafety, specimen transport, outbreak preparedness, intersectoral coordination, and emergency response capacity under the OH approach

- Vietnam has prioritized strengthening biosafety and biosecurity through the Law on Animal Health No. 79/2015/QH13, the Law on Prevention and Control of Infectious Diseases (2007), and Government Decree No. 103/2016/NĐ-CP on lab biosafety. Current national priorities include strengthening lab systems, improving zoonotic disease surveillance, enhancing multisectoral coordination, building rapid response capacity, and implementing the OH Partnership Framework for prevention and control of emerging infectious diseases

4. Laboratory System: Biosecurity, Biosafety and Biorisk Management (1)

Laboratory Network Overview in Vietnam

Vietnam has a nationwide laboratory network under the MAE and the MH for surveillance and diagnosis of animal and zoonotic diseases.

Current laboratory capacities are capable of testing major animal and zoonotic diseases such as AI, ASF, FMD, rabies, and SARS-CoV-2 using molecular, serological, and microbiological methods. Several ls also participate in WOAH and PT programs.

BSL facilities and accreditation status

Vietnam currently operates labs with BSL-2 and BSL-3 facilities for handling high-risk pathogens. Many vet labs are accredited under ISO/IEC 17025, medical labs by ISO 15189 requirements. Lab biosafety management is regulated under Decree No. 103/2016/NĐ-CP.

4. Laboratory System: Biosecurity, Biosafety and Biorisk Management (2)

Certification and quality management

National labs and regional labs maintain quality management systems, participate in PT, and apply SOPs for disease diagnosis and biosafety. Some labs are designated as national labs by the Ministries

Inventory control and pathogen management

Vietnam applies regulations on pathogen storage, transportation, and inventory management under the Law on Prevention and Control of Infectious Diseases (2007), the Law on Animal Health No. 79/2015/QH13, and Decree No. 103/2016/NĐ-CP. Labs are required to maintain records for pathogen inventory, specimen transport, biosafety procedures, and access control for infectious materials.

5. Laboratory System: Workforce & Training

- Vietnam's vet lab system collaborates with WOAH, FAO, WHO, and ASEAN lab networks to strengthen workforce capacity through training on biosafety, biosecurity, diagnostic techniques, quality management (ISO/IEC 17025), and outbreak preparedness for diseases such as AI, ASF.
- For example, FAO and WOAH supported regional training courses on real-time PCR diagnosis and lab biosafety for AI and ASF conducted in Hanoi and Ho Chi Minh City during 2022–2025 for staff from RAHO labs

6. Preparedness & Response

- Vietnam conducts biothreat and lab risk assessments for diseases such as AI, ASF under the OH approach.
- Risk management and outbreak communication strengthened during COVID-19 and AI outbreaks
- Simulation exercises organized with support from WOAH, FAO, and WHO (ex: ASF training in Hanoi during 2023–2025).
- institutes collaborate with international partners on epi- studies for AI and emerging zoonotic diseases.
- Cooperated with ASEAN countries and neighboring countries on cross-border surveillance and control of transboundary animal diseases

7. Challenges

- Limited real-time information sharing between animal health, public health, and security sectors.
- Uneven biosafety and biosecurity capacity among regional and provincial labs.
- Limited trained personnel and regular refresher training on biorisk management and lab biosecurity.
- Challenges in maintaining sustainable multisectoral coordination under the OH approach.
- Limited financial resources for lab maintenance, equipment upgrading, and environmental monitoring.
- Insufficient lab infrastructure and workforce capacity at local and border areas.

8. Key Recommendations

- Strengthen multisectoral coordination and real-time information sharing under the OH approach.
- Enhance biosafety and biosecurity training for lab staff at national and provincial levels.
- Increase investment in lab infrastructure, equipment, and environmental monitoring systems.
- Strengthen international and regional collaboration with WOAH, FAO, WHO, and ASEAN partners on training, surveillance, and emergency preparedness

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