



World
Organisation
for Animal
Health
Founded as OIE

Organisation
mondiale
de la santé
animale
Fondée en tant qu'OIE

Organización
Mundial
de Sanidad
Animal
Fundada como OIE



Australian Government
Department of Agriculture,
Fisheries and Forestry

Enhancing capacities of veterinary workforce to prevent and manage emergencies

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Rah06 - Department of Animal Health of Vietnam

**Sub-Regional Workshop on Emergency Management
14 - 16 August 2024 Bangkok, Thailand**



OUTLINE

- I. General background
- II. Animal health system of Vietnam
- III. Legal documents/National programs
- IV. Summary



GENERAL BACKGROUND



INTRODUCTION

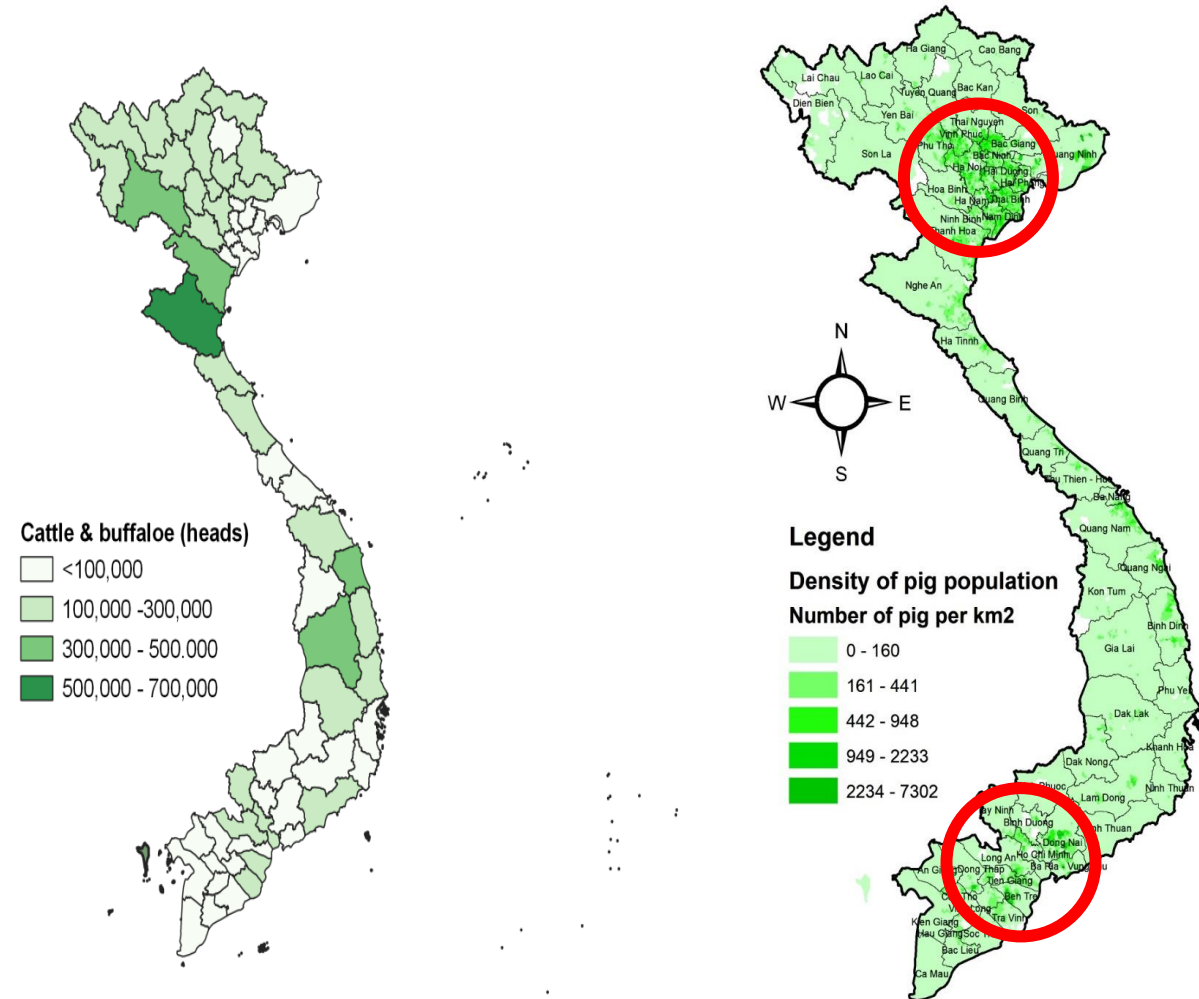
- Located in Southeast Asia
- Area: 332,000 km²
- Population 98.5 million
- 70% rural population
- Average 6.4% increase in annual GDP
- Livestock contributes ~ 22 % of total agricultural GDP





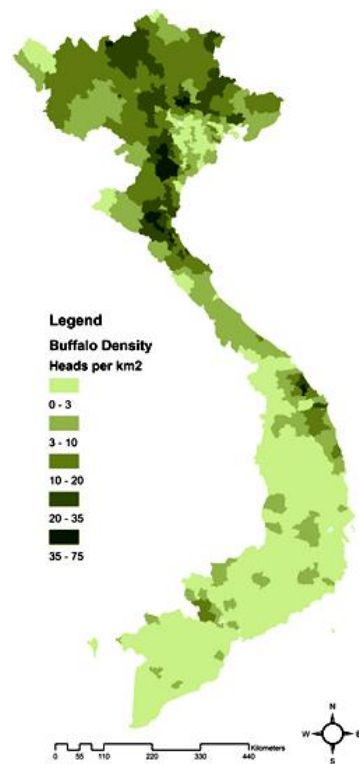
LIVESTOCK POPULATION

- Pig population: (10/2023)
 - ~ 30 million
 - Poultry population:
 - ~ 550 million
 - Ruminant animals population:
 - Cattle: ~6 million
 - Dairy cattle: ~331 thousand,
 - Buffalo: ~2.2 million
- Small-scale farms accounted for 40% of cattle, 80% of pig farms.
- Semi-intensive to intensive pig and dairy farms are growing fast.

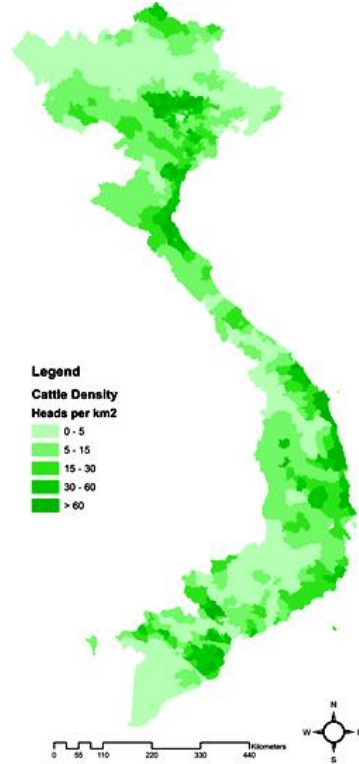




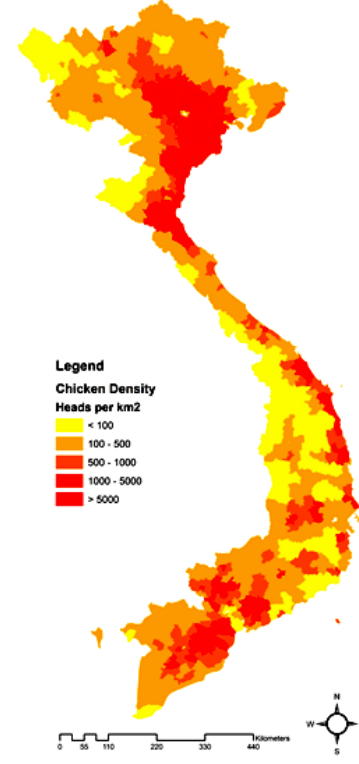
ANIMAL HUSBANDRY IN VIET NAM



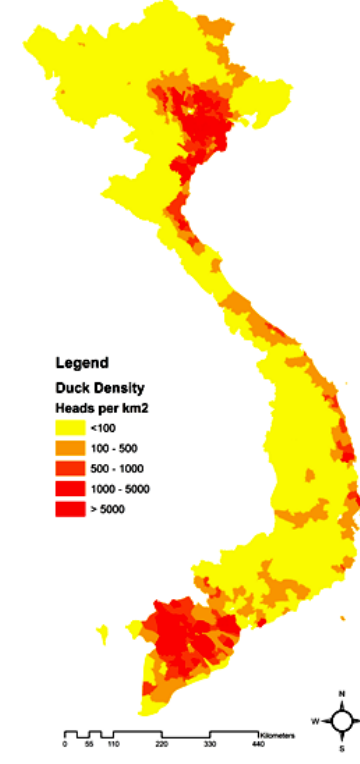
Buffalo density
(number of buffalo per km²)



Cattle density
(number of cattle per km²)



Chicken density
(number of chicken per km²)



Duck density
(number of duck per km²)

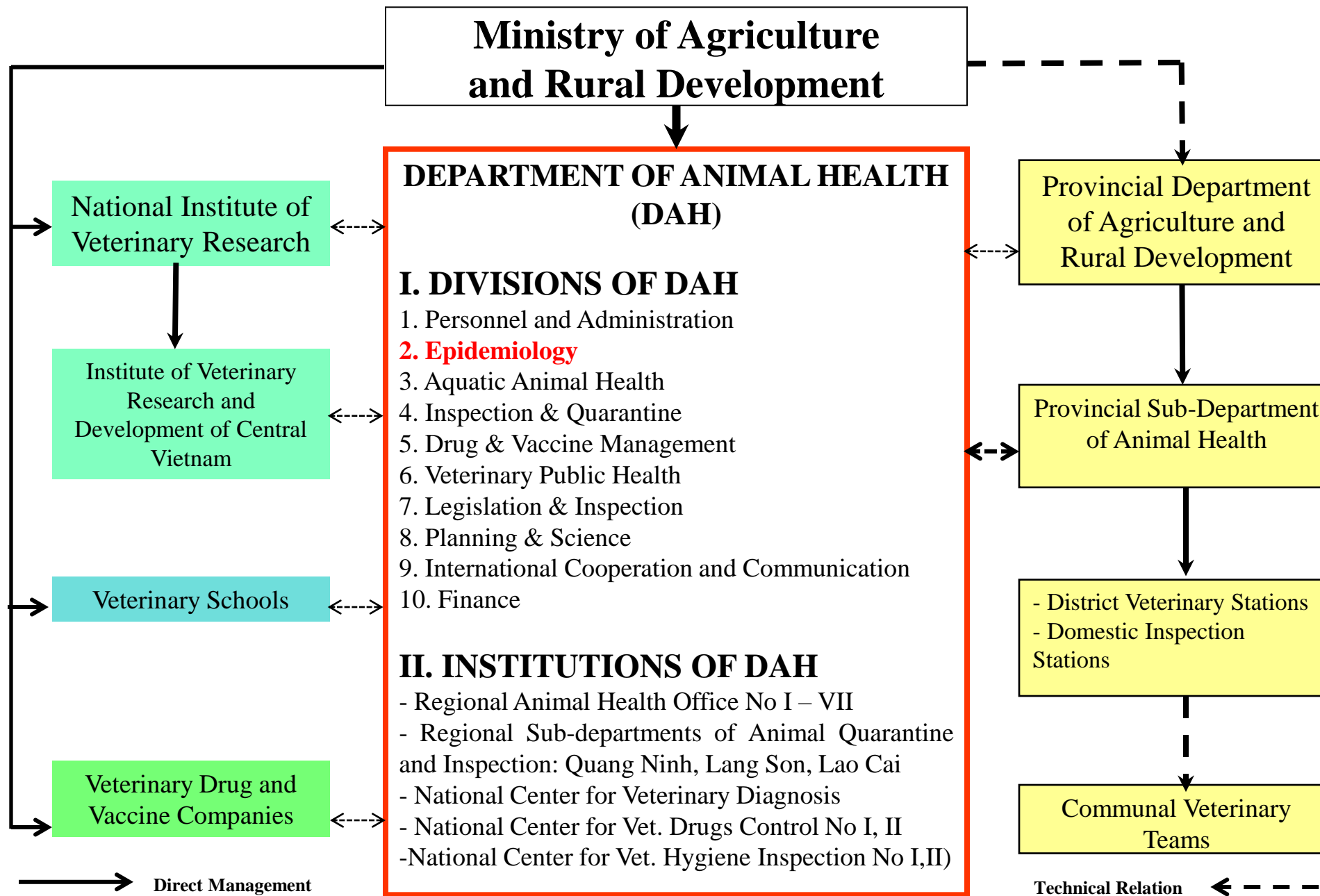
The maps of animal density in Viet Nam (head per km²)
Total animal products increase about 3.5% annually.



ANIMAL HEALTH SYSTEM IN VIETNAM

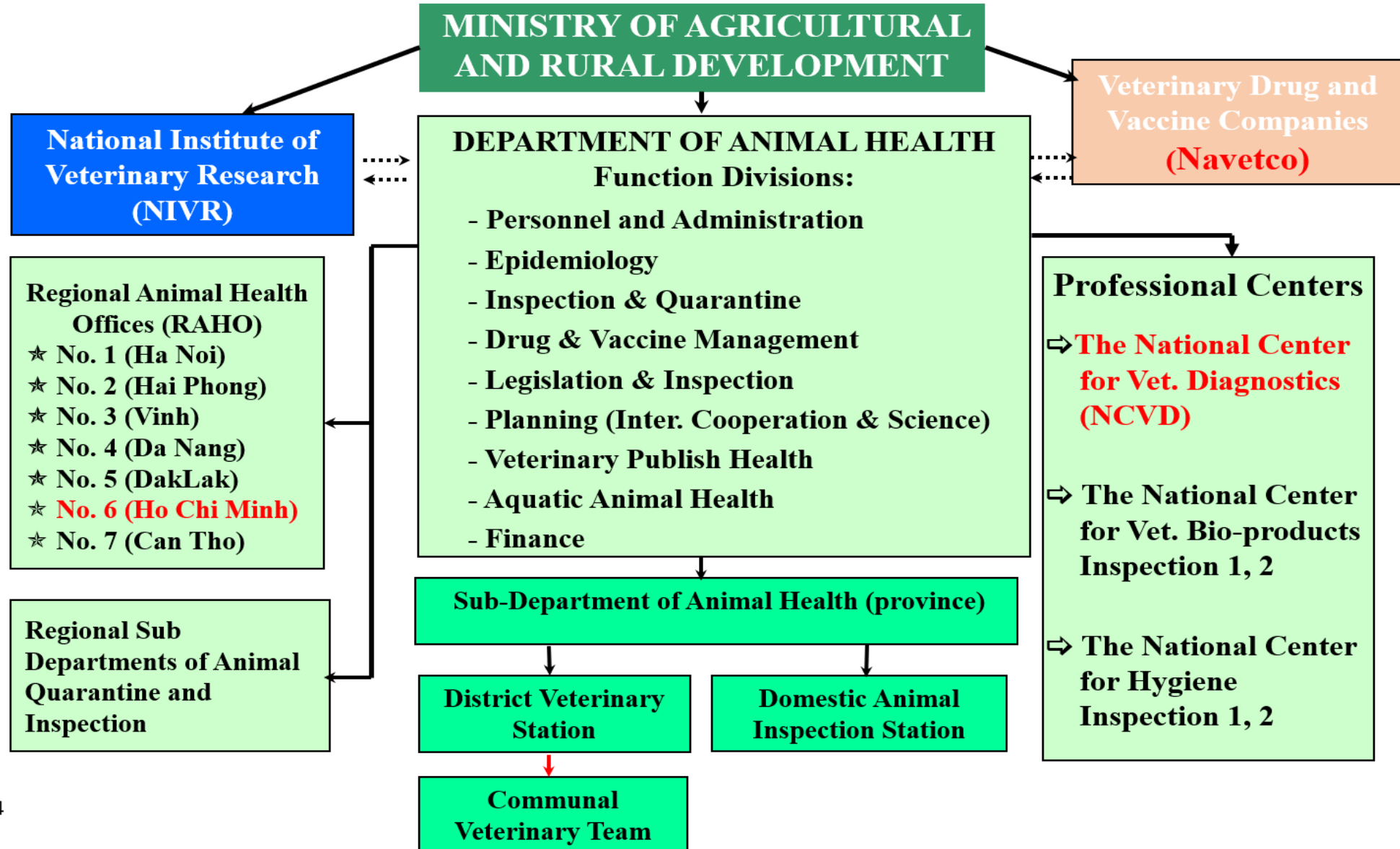


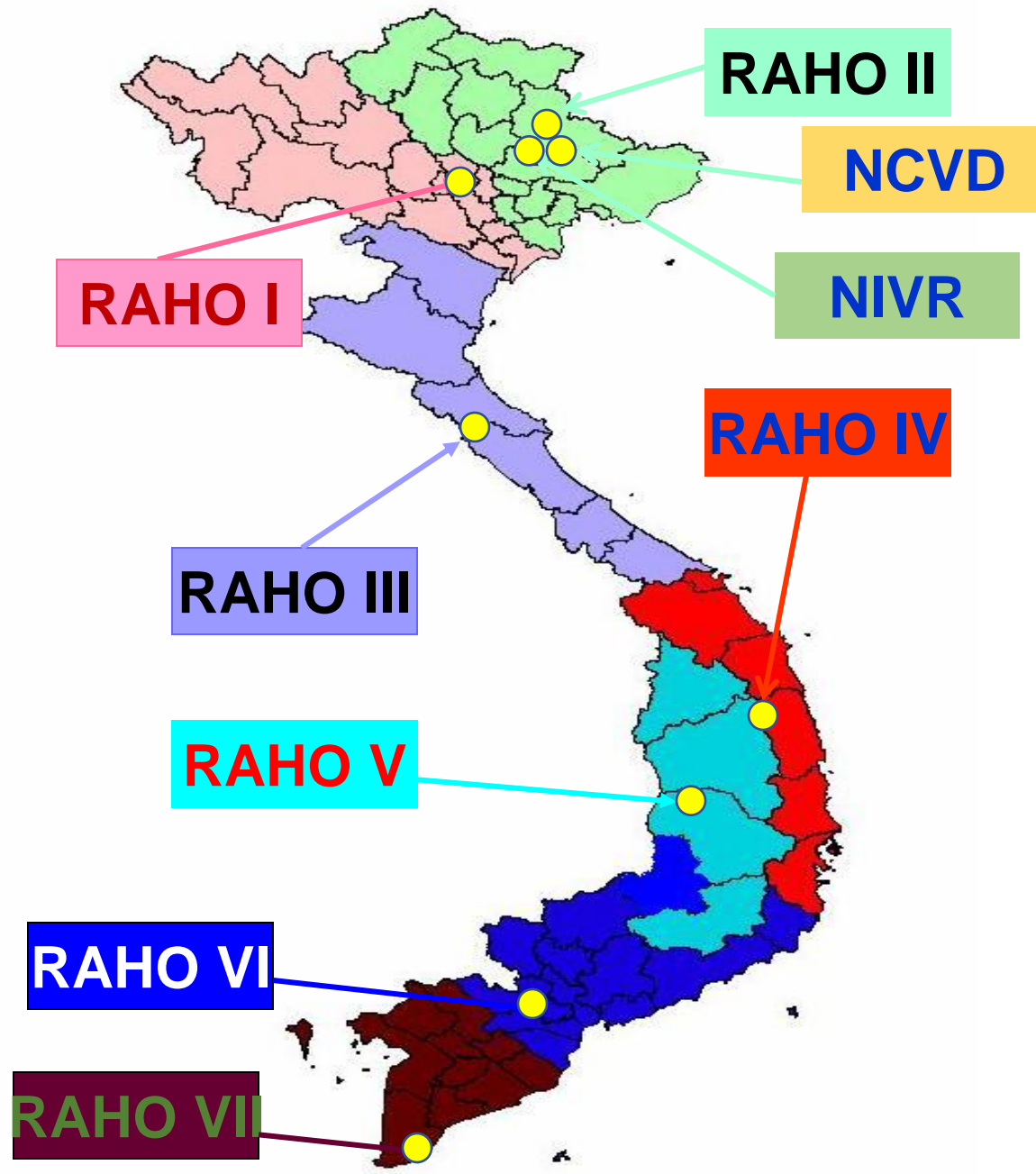
ANIMAL HEALTH SYSTEM OF VIETNAM





Structure of Veterinary Services



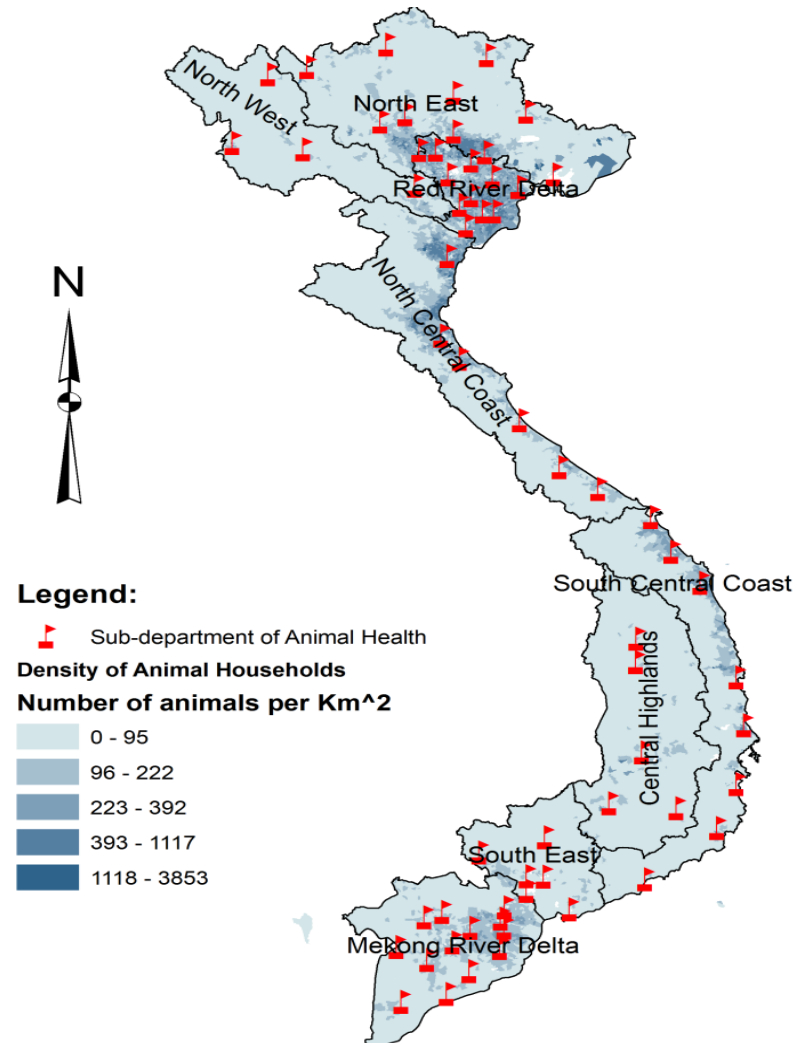


7 Regional Animal Health Offices (RAHOs) and Laboratories



LOCATION OF ANIMAL HEALTH OFFICES IN VIETNAM

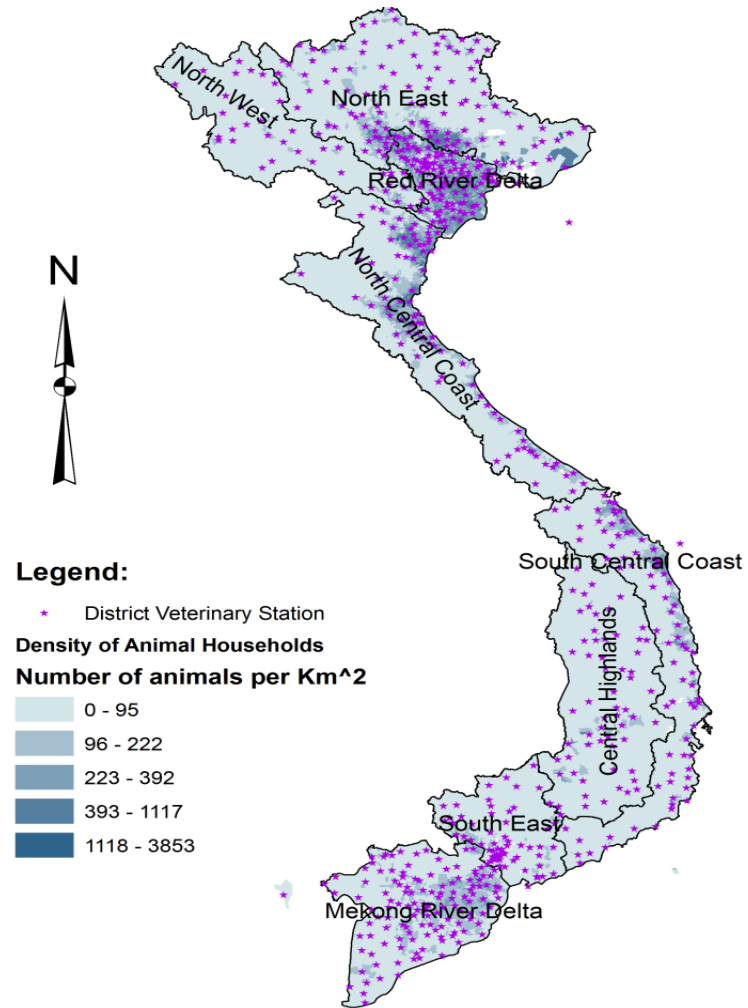
63 Provincial Sub-department of Animal Health (SDAH)





LOCATION OF ANIMAL HEALTH OFFICES IN VIETNAM

713 District
Veterinary
Station (DVS)





Veterinary Laboratory System



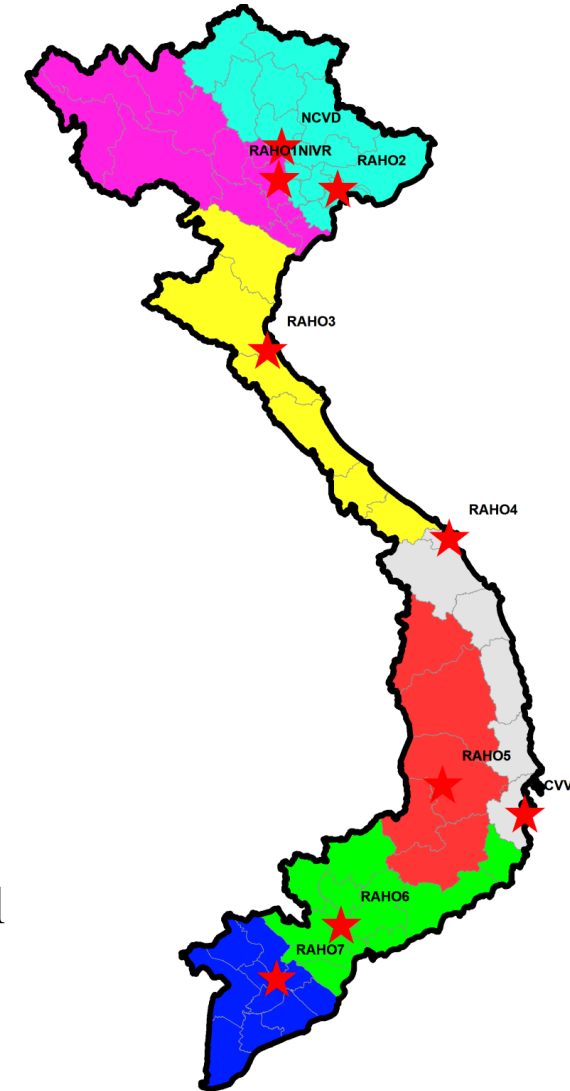
Main door

Pass box
for sample

Mobile Laboratories: Trailers

Germfree's Trailer Labs: Biological Safety, High Containment up to BSL-3

- 8 Laboratories with BSL-2 Plus are available for animal disease diagnosis and surveillance activities,
- 01 mobile lab with BSL-3
- 2 Laboratories for veterinary hygiene control



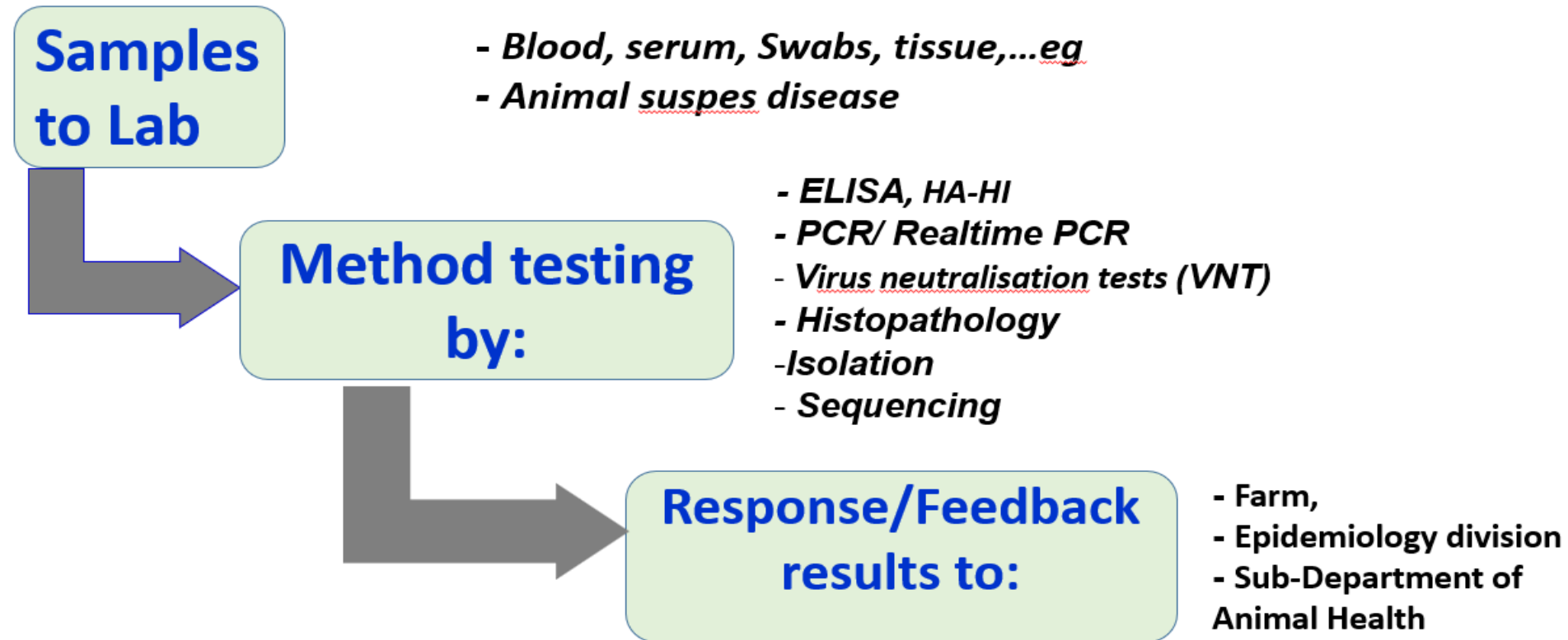


Veterinary laboratories



Veterinary Laboratory System

Chart of diagnostic (Quality Assurance by ISO/IEC 17025 guidelines)





Veterinary Laboratory System

No	Purpose testing	Methods
1	Antibodies detect	<ul style="list-style-type: none">- Rapid test; M.A.T, ELISA; Inhibition of hemagglutination- Serum neutralisation test,- Immunoperoxidase monolayer assay
2	Antigen detect	<ul style="list-style-type: none">- ELISA, PCR , Realtime PCR,
3	Isolation virus	<ul style="list-style-type: none">- Chicken embryo egg, Cell lines
4	Bacteria	<ul style="list-style-type: none">- Isolation & Identify by traditional method- Automatic identification system (VITEK 2) .- PCR, Realtime PCR
5	Sequencing	Sanger sequencing 3500XL
6	Parasite	<ul style="list-style-type: none">- Microscopy- PCR, Realtime PCR
7	Histopathology	<ul style="list-style-type: none">- Traditional methods (H&E)- IHC (Immuno-Histo-Chemistry, IF)



Veterinary Laboratory System

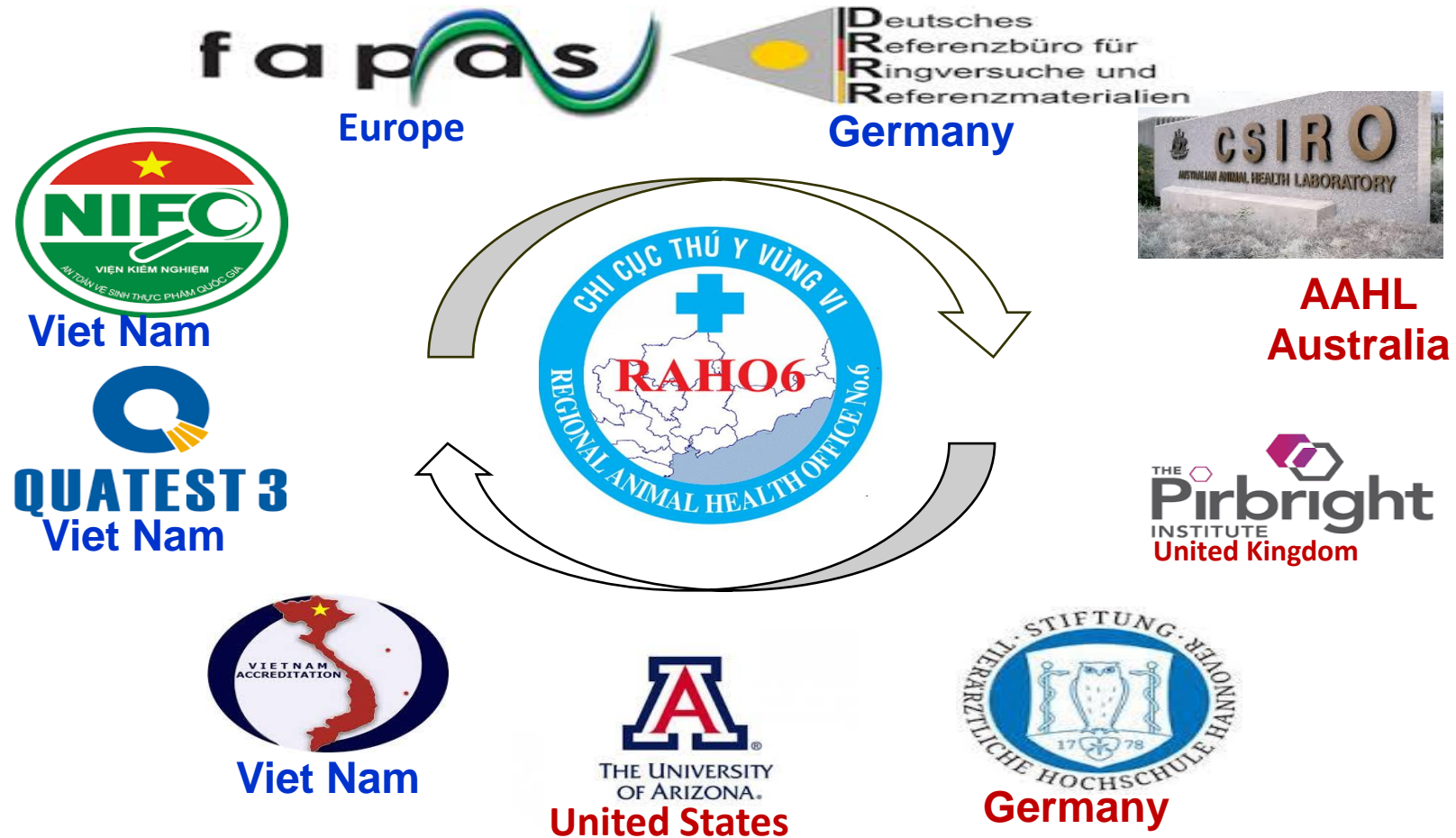
- Before applying the procedure. The laboratory must verification of the test method to ensure that it passes the standards: *Sensitivity; Specificity; Repeat, limit of detect (LOD)*.
- Also, many protocol/technique method has assessment, accredited by the Department of Animal Health.

Target/animal	testing	Result response
<i>Terrestrial animal diseases</i>	<ul style="list-style-type: none">- Avian Influenza H5N1;- H5N6; Newcatle;- Gumboro;- Foot and mouth disease;- Classical Swine Fever;- Aujeszky; Bluetongue;- Leptopira; Rucellosis; PCV-2, PED	1-2 day



Join participant Proficiency testing

Avian Influenza, Newcastle method refer from WOAH/OIE



Primary method using at RAH06



Updated 24/06/2022

Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2022



ACDP



**IN-HOUSE
METHOD**



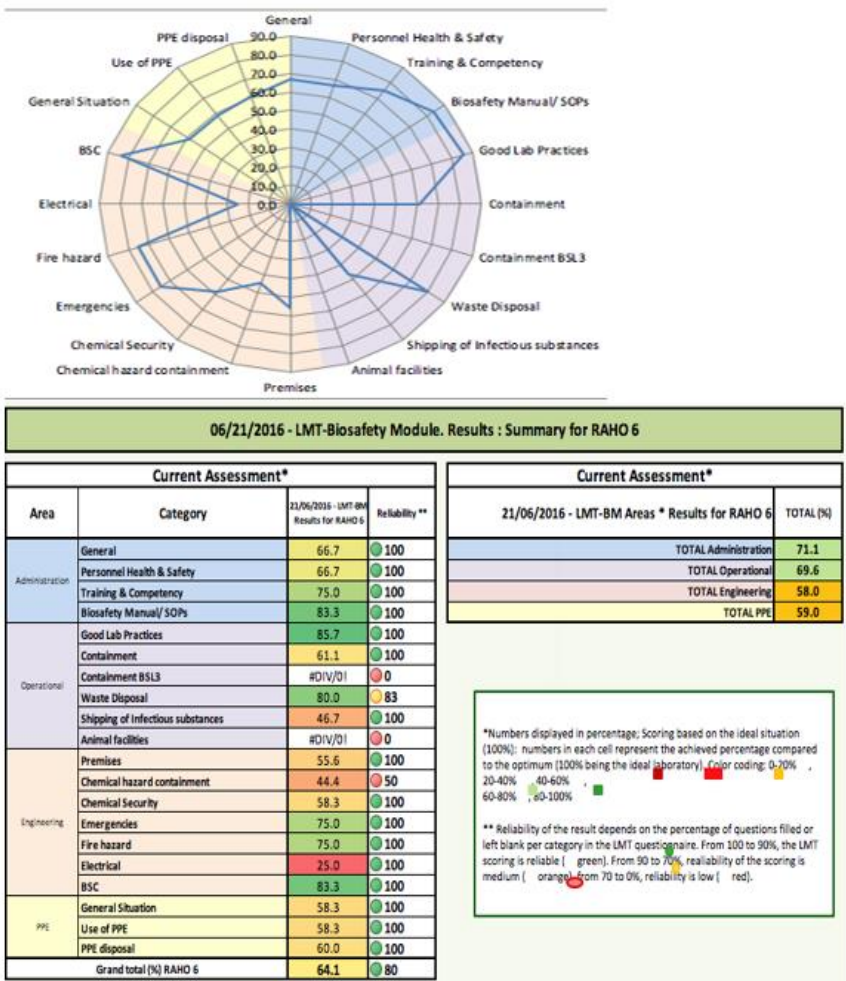
International
Organization for
Standardization





Biosafety & Biosecurity

The laboratory is evaluated and checked by FAO biosecurity expert. with the comments " good practice" at RAHO6 lab.



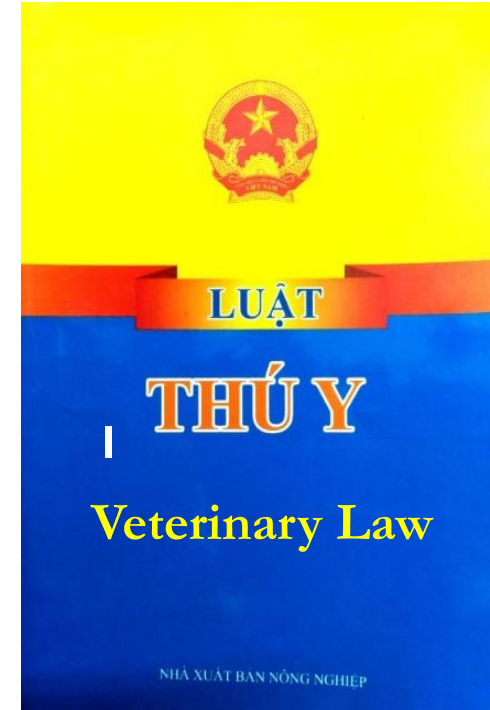


LEGAL DOCUMENTS/NATIONAL PROGRAMS



Legal documents on control and prevention of animal diseases

- Veterinary Law was recently approved by National Assembly and enforced from 01 July 2016.
- In the Law, Chapter II regulates disease control and prevention in terrestrial animals from Article 14 to Article 31.





Legal documents on control and prevention of animal diseases

- Degree No. 35/2016/ND-CP regulate animal health system from the central down to commune level.
- Decision No. 16/QD-TTg regulating establishment of the national and local committees for prevention and control of animal diseases
- **Circular 07/2016/TT-BNNPTNT regulating prevention and control of terrestrial animal diseases**
- Circular 14/2016/TT-BNNPTNT regulating disease free compartments and zones (updated by Circular 24/2022/TT-BNNPTNT regulating disease free compartments and zones)
- Circular 16/2013/TTLT-BYT-BNN&PTNT regulation collaboration between animal health and public health sectors for controlling zoonotic disease



National Programs for the control and prevention of animal diseases

- **AI:** The plan aims to establish a HPAI and Newcastle disease free zone in 5 provinces in region No. 6 recognized by OIE in 2025
- **FMD:** period 2006-2010, 2011-2015, and 2016 – 2020, 2021-2025 (each period, Government budget allocated from 34 million USD to 40 million USD)
- **ASF, Lumpy skin:** National Programs period 2020-2025; 2022-2030
- **Rabies:** Rabies control and elimination in Viet Nam 2017 – 2021 period, basically controlling rabies on domestic dogs by 2021, 2022 – 2030 period, basically controlling rabies on domestic dogs by 2022, progressing towards eliminating rabies on domestic animals.



List of notifiable diseases

Terrestrial disease:

- **Anthrax**
- **Foot and Mouth disease**
- **Lumpy skin**
- **Leptospirosis**
- **Rabies**
- **Classical swine fever**
- **PRRS**
- **ASF**
- **Avian Influenza (HPAI)**
- **Newcastle**



Animal Health Staff

Institution	Number of staff	Qualification (%)			
		Post.Grad	Graduate	Technicians	Basic training
DAH and RAHOs	643	16	58	9	17
Provincial SDAH	7,457	2	54	37	7
Commune vets	25,227	0	5	38	57
Private vets	30,653	0	2	29	69



SUMMARY



Challenges/Gaps

- Many emerging diseases: highly contagious and difficult to control, requiring effective prevention and treatment measures
- Long land border: Vietnam shares a land border with 3 countries Laos, Cambodia and China with nearly 4,510 km of land border, creating conditions for the smuggling of livestock breeds and animal products
- Small-scale livestock farming: Most livestock farming activities in Vietnam are still small-scale and scattered
- Small-scale slaughterhouses: Many small-scale slaughterhouses are prone to the risk of spreading diseases and reducing quality
- Urban growth and climate change
- Fragmentation in the food supply and consumption network



Way forward

- **Reporting Applications:** Develop an Automated Reporting System and Develop a Mobile App
- **Digital Transformation:** Digitize Records and Data, Develop an Integrated Disease Management System: Convert traditional records into electronic formats for easier management, tracking, and analysis.
- **Policy Improvement:** Update and Adjust Existing Policies, Develop Supportive Policies and Compensations
- **Document Improvement:** Review and Revise Legal Documents, Create Detailed Guidelines
- **Training and Capacity Building:** Professional Training, Advanced Skill Workshops
- **Establishing Disease-Free Zones:** Develop a Database of Disease-Free Zones, Invest in Infrastructure



**Thank you very much
for your attention!**

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