

BIOSECURITY IN PIG PRODUCTION

UNDERSTANDING THE IMPLEMENTATION OF ANIMAL-DISEASE FREE
ESTABLISHMENT AND ZONE ACCORDING TO VIETNAM'S
REGULATIONS (CIRCULAR 24/2022/TT-BNNPTNT) AND STANDARDS
OF THE WORLD ANIMAL HEALTH ORGANIZATION (WOAH)

Hanoi city, November 26th 2024

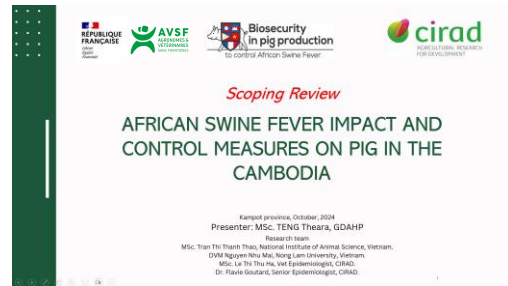
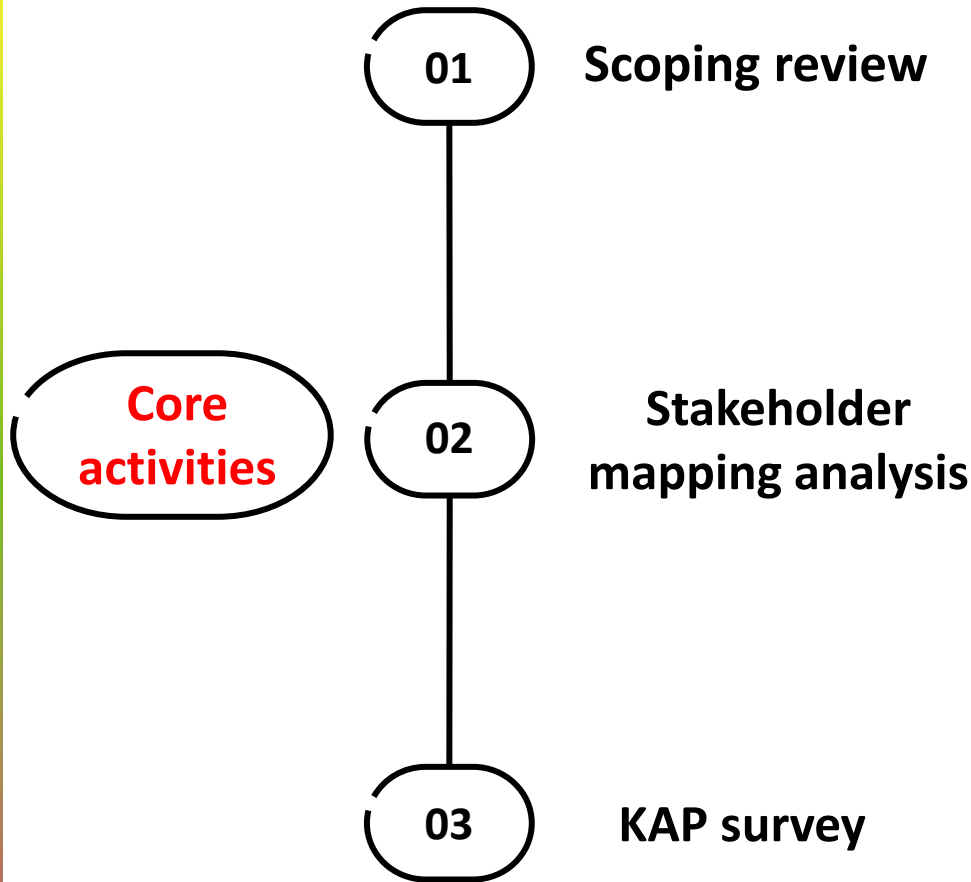
CIRAD

Dr. Truong Dinh Bao

MSc. Le Thi Thu Ha

Dr. Flavie Goutard

Activities in Cambodia – Laos – The Philippines



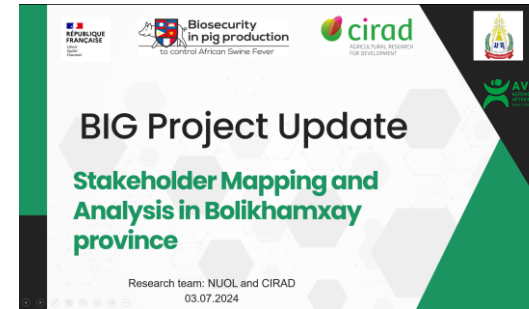
Cambodia



The Philippines



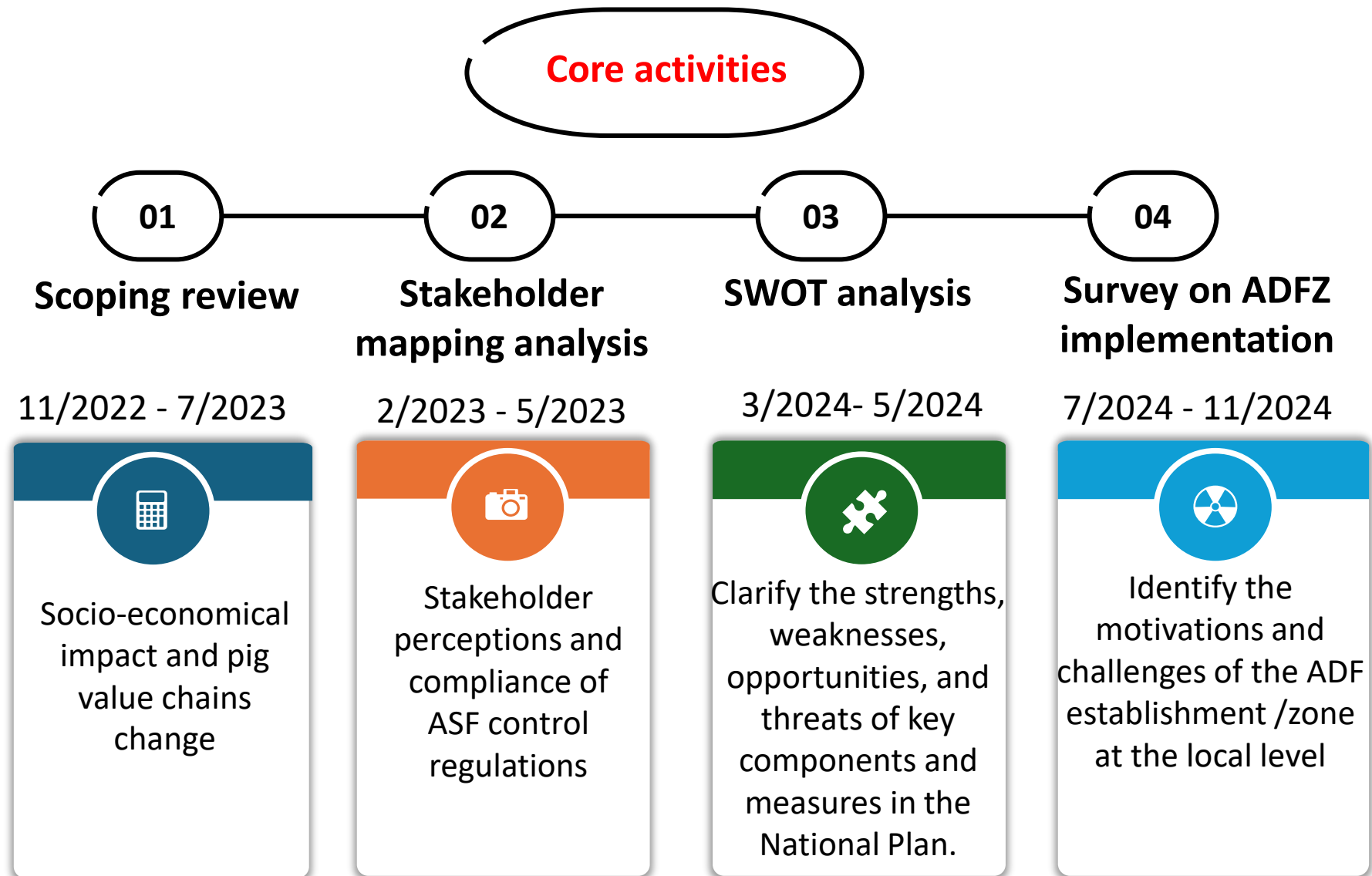
Lao PDR



Lao PDR



Cambodia



CONTENT

1. Overview

2. Materials and Methods

3. Results

4. Discussion

5. Suggestions from private/ company farm and local veterinary authorities



I. Overview

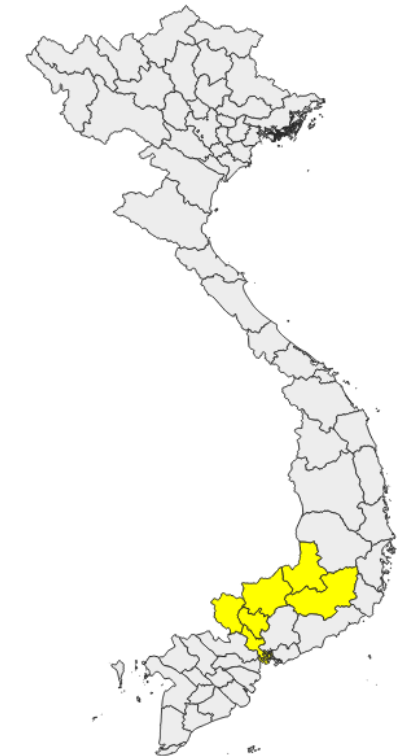
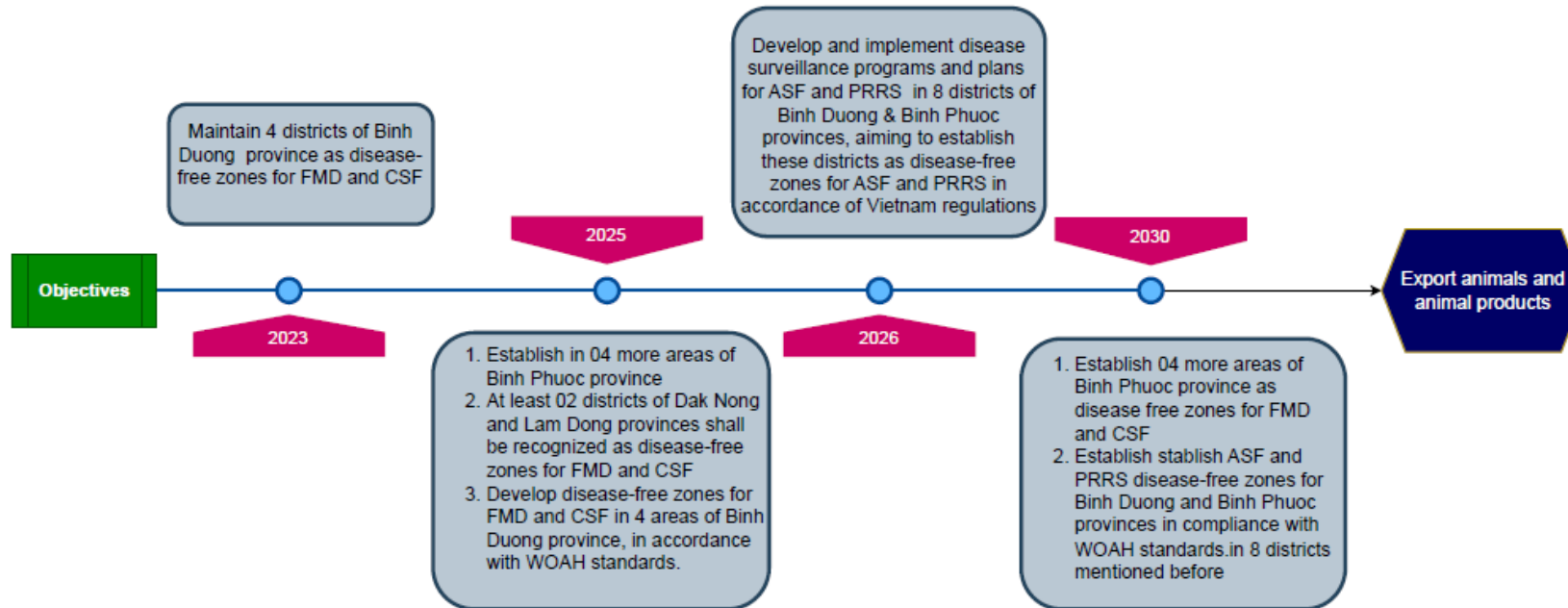
Decision 889/QĐ-TTg (July 25, 2023)

“National Plan for implementation of key missions to strengthen the management and control capacity for animal disease and ensure animal-source food safety, period 2023 – 2030”

THỦ TƯỚNG CHÍNH PHỦ CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
 Độc lập - Tự do - Hạnh phúc
 Số: 889 /QĐ-TTg Hà Nội, ngày 25 tháng 7 năm 2023

QUYẾT ĐỊNH
 Về việc phê duyệt “Kế hoạch quốc gia triển khai các nhiệm vụ trọng tâm nhằm tăng cường năng lực quản lý, kiểm soát dịch bệnh động vật và bảo đảm an toàn thực phẩm có nguồn gốc động vật, giai đoạn 2023 - 2030”

CÔNG THÔNG TIN ĐIỆN TỬ CHÍNH PHỦ
 ĐẾN Ngày: 26/7/2023
 THỦ TƯỚNG CHÍNH PHỦ



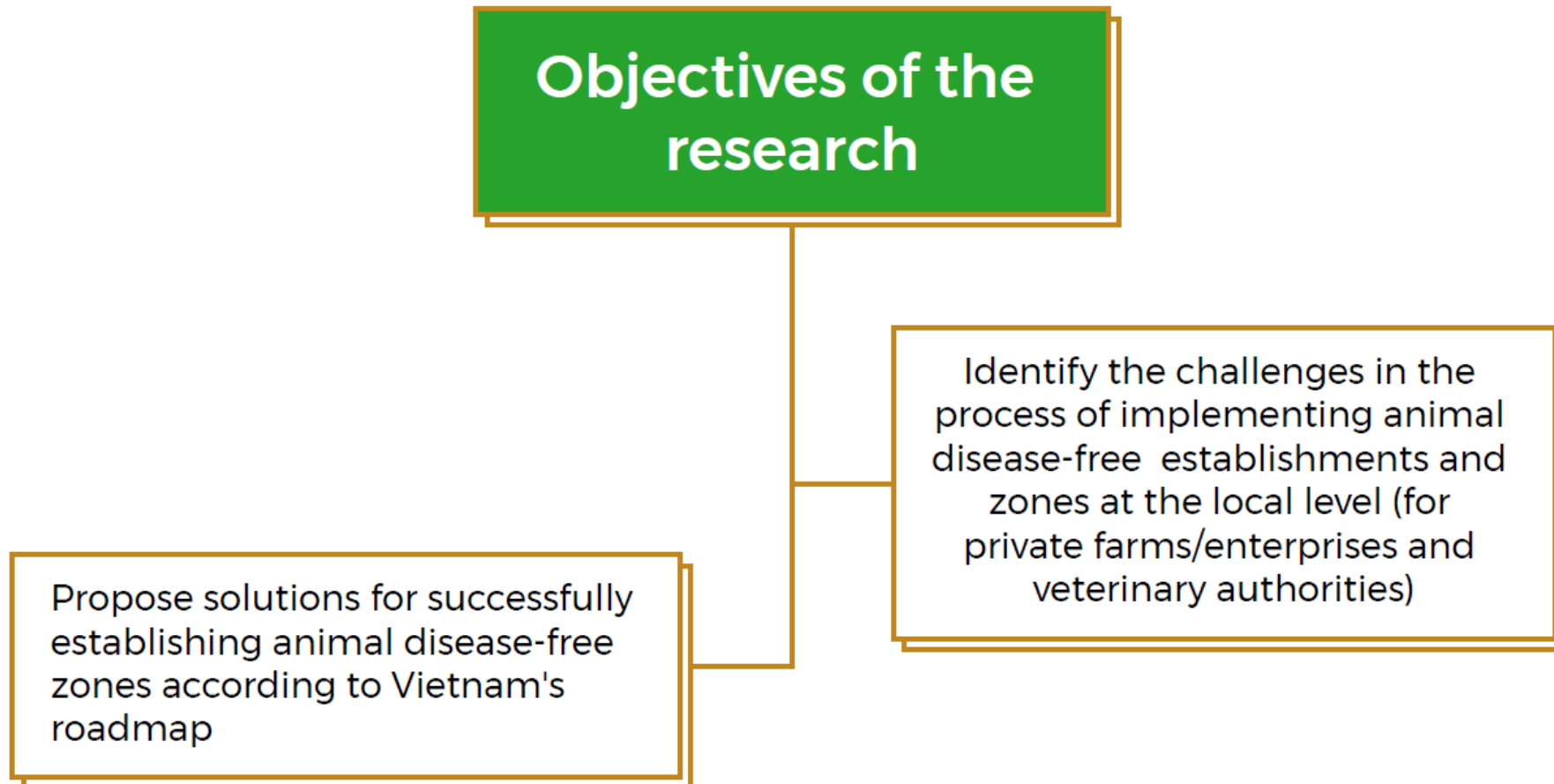
DEFINITIONS

DEFINITION	VIETNAM	WOAH
ADF zone	A zone for terrestrial animals refers to districts, wards and cities of a province (collectively referred to as district level); provinces and centrally-governed cities (collectively referred to as provincial level), identified as having no cases of diseases registered for disease-free status for a specified period for each disease, each type of animal, and veterinary activities in that zone ensure disease control	A zone within a country in which the absence of a specific infection or infestation in an animal population has been demonstrated . The zone is an area identified by veterinary authorities, including animal populations sharing epidemiological/veterinary characteristics of a specific disease for the purpose of international trade (e.g., import/export of animals and animal products) or disease prevention."
ADF establishment	A terrestrial ADF establishment refers to a livestock farm or a commune, ward, or town (hereinafter referred to as a commune-level livestock facility) identified as having no cases of diseases registered for disease-free status for a specified period for each disease, each type of animal, and veterinary activities at that facility ensure effective disease control	
Compartment		Means an animal subpopulation contained in one or more establishments , separated from other susceptible populations by a common biosecurity management system, and with a specific animal health status with respect to one or more infections or infestations for which the necessary surveillance, biosecurity and control measures have been applied for the purposes of international trade or disease prevention and control in a country or zone.

Source: Law on Veterinary Medicine, Vietnam

Source: *Chapter 4.5. of the Terrestrial Animal Health Code; Glossary of the Terrestrial Animal Health Code*

1. Overview



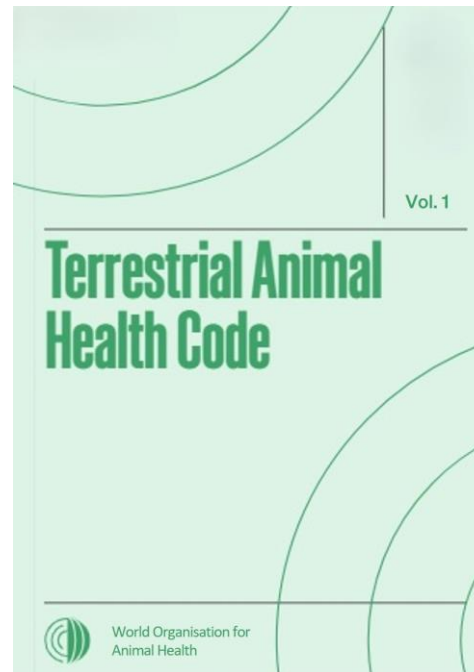
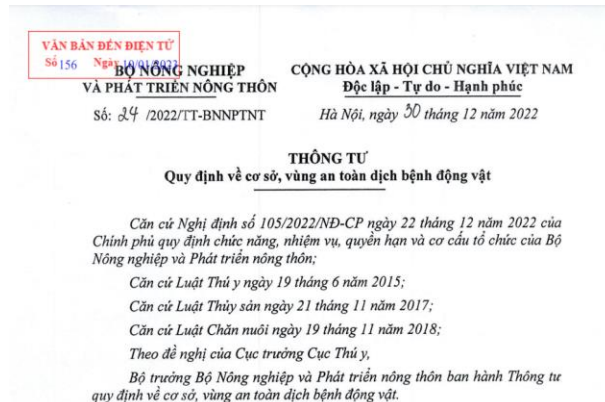
2. Materials and Methods

Steps of research method



2.1 Literature review

- Circular 24/2022/TT-BNNPTNT issued on December 30, 2022
- Chapter 4.4 and 4.5. of the Terrestrial Animal Health Code
- ADF establishment and zone regulations – relevant literatures provided by DAH



- 2 questionnaire frameworks for **Veterinary authorities** and **Private/Company farms**

2.3 CONTENT OF THE QUESTIONNAIRE

Criteria for evaluating the implementation of ADF establishments

1. Physical factors or spatial factors that affect the state of biosecurity of the establishment
2. Infrastructure factors
3. Biosecurity Plan
4. Disease surveillance Plan
5. Disease response Plan
6. Information storage, management and traceability system

Criteria for evaluating the implementation of ADF zone

1. Requirements for identifying the geographical location of ADF zone
2. Requirements for management of livestock practices in ADF zone
3. Requirements for Biosecurity Plan
4. Requirements for Disease Surveillance Plan
5. Requirements for Food Safety Surveillance Plan
6. Requirements for controlling transport and slaughter within ADF zone
7. Response plan in case of disease outbreaks and detection of pathogens
8. Recording, managing information, data, and documents in ADF zone
9. Veterinary system and activities in ADF zone

2.3 CONTENT OF THE QUESTIONNAIRE

❑ Implementing scoring scale

- Easy to do = 1
- Slightly challenging = 2
- Moderately challenging = 3
- Very challenging = 4
- No opinions = 0

2. How do you assess the level of meeting the criteria related to **separating livestock facilities from potential sources of infection?**

Criteria	Requirements	Level					Please explain why
		Easy to do	Slightly challenging	Moderately challenging	Very challenging	No idea	
2.1. Physical or spatial factors that affect the biosecurity status of the facility	a) [C2] Livestock facilities site must follow the planning of local authority or permitted by competent agencies						
	b) [C3] Ensure the distance from the facility to residential waste; industrialized areas; schools, hospitals, markets, sources of domestic water supply for residential communities						
	c) [C4] Separate from other establishments that raise the same type of susceptible animals						
	d) [C5] Separate from slaughterhouses, by-product processing plants, feed production plants, fairs, agricultural exhibition places, animal sporting events, zoos, circuses and other animal gathering places.						

2.2 Field survey

- **Conducting period:** 17/09/2024 – 03/10/2024
- **Study locations:** Ho Chi Minh City, Binh Duong, Binh Phuoc, Tay Ninh provinces
- **Target population:**
 - Veterinary officers from regional and provincial veterinary management agencies
 - Private pig farms/ enterprises
- **Sampling method:**
 - Convenience sampling: farms registered ADF establishment
 - Interview: face-to-face and online (Kobotoolbox)
- **Data analysis**
 - Comparison of criteria for regulations on implementing ADF zones according to Vietnam Circular and WOAHP standards
 - Assessment implementation measures for government authority and pig enterprise
 - Thematic analysis of challenges



BỘ CÂU HỎI TÌM HIỂU THỰC HÀNH XÂY DỰNG CƠ SỞ VÀ VÙNG AN TOÀN DỊCH BỆNH THEO QUY ĐỊNH CỦA VIỆT NAM (THÔNG TƯ 24/2022/TT-BNNPTNT) VÀ TIÊU CHUẨN CỦA TỔ CHỨC THÚ Y THẾ GIỚI (WOAH)

GIỚI THIỆU CHUNG

Trong bối cảnh thương mại quốc tế ngày càng phát triển, việc xây dựng cơ sở và vùng An toàn dịch bệnh động vật (ATDB) đóng vai trò then chốt trong việc phòng ngừa, kiểm soát dịch bệnh, đồng thời tạo điều kiện thuận lợi cho hoạt động xuất nhập khẩu. Tuy nhiên, quá trình này vẫn đối mặt với không ít khó khăn và thách thức. Thực hiện Quyết định số 889/QĐ-TTg ngày 25/07/2023 của Thủ tướng Chính phủ về "Kế hoạch quốc gia triển khai các nhiệm vụ trọng tâm nhằm tăng cường năng lực quản lý, kiểm soát dịch bệnh động vật và bảo đảm an toàn thực phẩm có nguồn gốc động vật, giai đoạn 2023 – 2030", dự án xây dựng vùng ATDB đối với các bệnh trên gia cầm và gia súc đang được triển khai trên các tỉnh thành khu vực phía nam. Nhằm hỗ trợ Cục Thú y trong việc xây dựng vùng ATDB đạt tiêu chuẩn của Tổ chức Thú y Thế giới (WOAH), Trung tâm Hợp tác Quốc tế về Nghiên cứu Nông nghiệp vì sự Phát triển (CIRAD) tiến hành một nghiên cứu khảo sát so sánh các tiêu chí xây dựng cơ sở và vùng ATDB theo Thông tư 24/2022/TT-BNNPTNT (gọi tắt là Thông tư 24) và tiêu chuẩn WOAH. Nghiên cứu này tập trung vào việc xác định những khó khăn, thách thức trong quá trình xây dựng kế hoạch tại địa phương và doanh nghiệp đặc biệt đối với bệnh Dịch tả lợn châu Phi (DTLCP), từ đó đề xuất các giải pháp nhằm đảm bảo việc xây dựng vùng ATDB thành công theo lộ trình đã đề ra.

Mọi thắc mắc xin vui lòng liên hệ nhóm nghiên cứu:

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Easy to do	Slightly challenging	Moderately challenging	Very challenging
1	1< - ≤2	2 - ≤3	3 - ≤4

Average rating scale for implementation assessment

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2. Materials and Methods

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authorities



3.1 LITERATURE REVIEW: COMPARISON OF CRITERIA FOR REGULATIONS ON IMPLEMENTING ADF ZONES ACCORDING TO CIRCULAR 24/2022/TT-BNNPTNT AND WOAHP STANDARDS

Criteria	Differences
1. Geographic location	There is no plan to build a buffer zone
2. Management and practice of livestock farming in the zone	
3. Biosecurity plan	
4. Disease surveillance plan	No cases of the disease registered for ADF certification in at least 12 months prior to the time of submission of the registration dossier (in circular 24/2022/TT-BNNPTNT) There is no surveillance plan outside the ADF zones
5. Food safety monitoring plan	There is no specific guidance on the food safety monitoring plan
6. Control of transportation and slaughter in the ADF zone	
7. Disease response plan	
8. Documents and information of the ADF zone	
9. Veterinary system and activities in the ADF zone	Management of on-farm biosecurity and disease surveillance, transportation control, slaughterhouse control, and disease prevention and control outside ADF zone

3.2 FIELD SURVEY: DEMOGRAPHICS OF PARTICIPANTS

- Total number of participants interviewed = 40
 - Government officers = 11
 - Private farms/enterprises = 29 (15 companies)

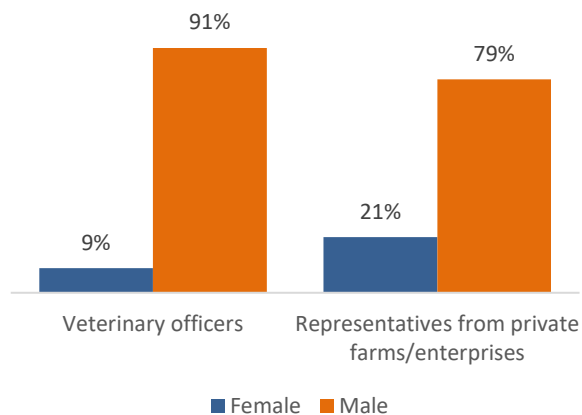


Figure 1. Gender characteristics of participants (n=40)

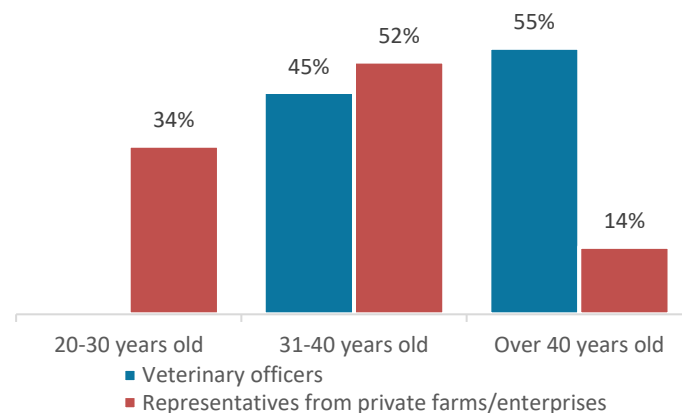


Figure 2. Characteristics chart of the age group of participants (n=40)

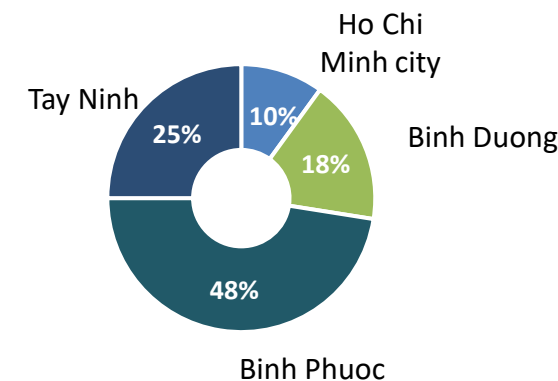


Figure 3. Geographical distribution of participants (n=40)

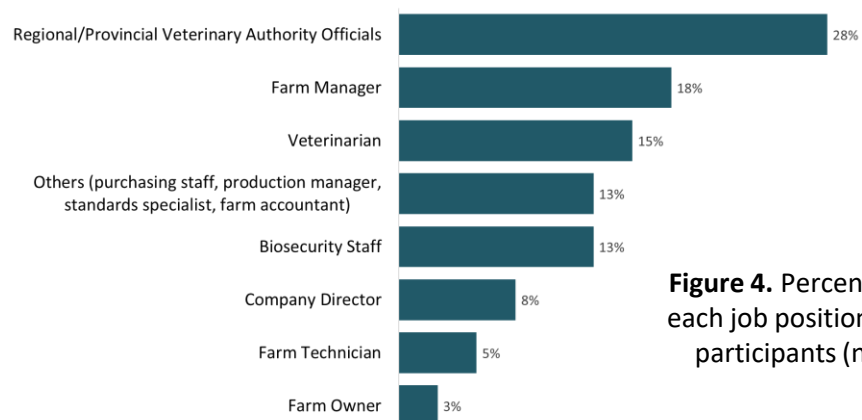


Figure 4. Percentage of each job position of the participants (n=40)

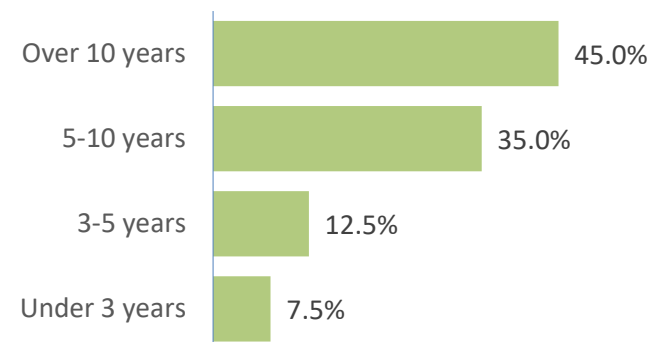


Figure 5. Number of years of work experience per participants (n=40)

3.3 BENEFIT OF ADF ESTABLISHMENTS

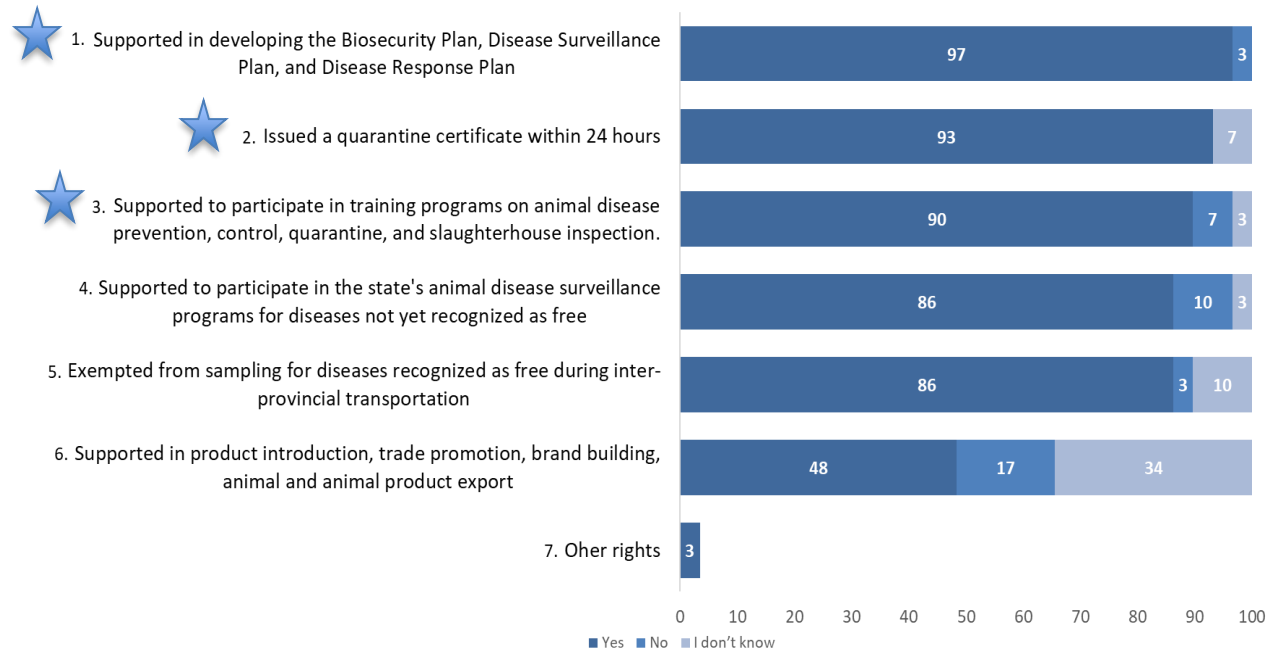


Figure 7. Benefits of registering as ADF establishment for private farms and enterprises (mentioned in Circular 24/2022/TT-BNNPTNT)

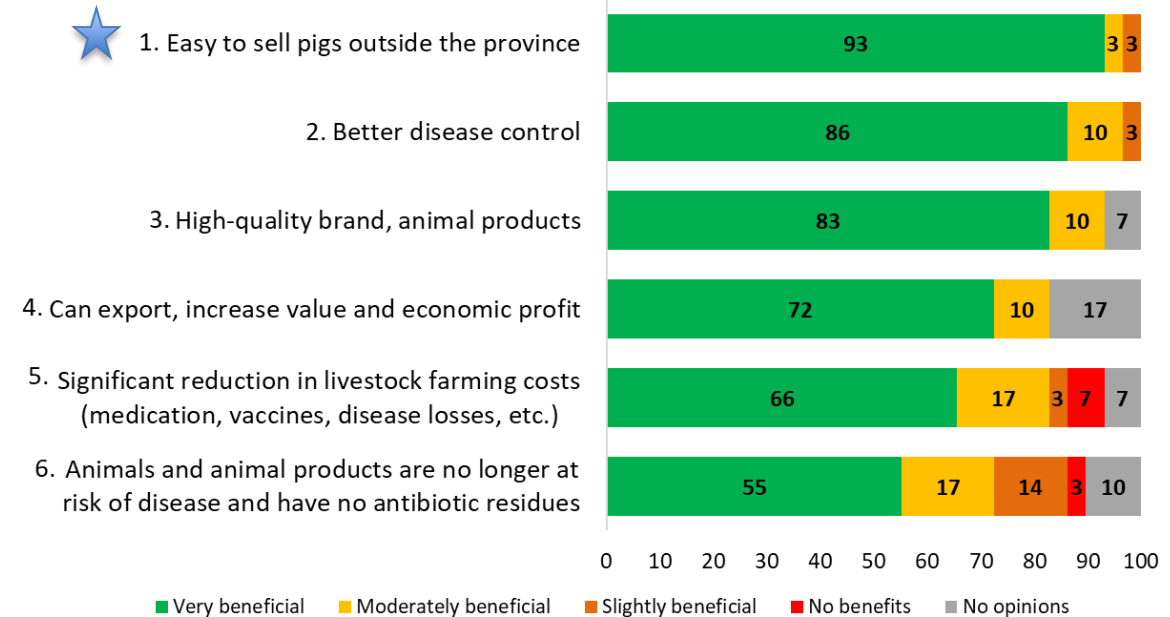


Figure 8. Additional benefits of registering as ADF establishment for private farms and enterprises

3.5 CURRENT SITUATION AND CHALLENGES IN THE PROCESS OF BUILDING AN ADF ESTABLISHMENT

3.5.1 LIVESTOCK ESTABLISHMENTS

3.5.2 VETERINARY OFFICERS FROM REGIONAL AND PROVINCIAL VETERINARY MANAGEMENT AGENCIES

3.5.1.1 LEVEL OF IMPLEMENTATION OF ADF ESTABLISHMENT CRITERIA

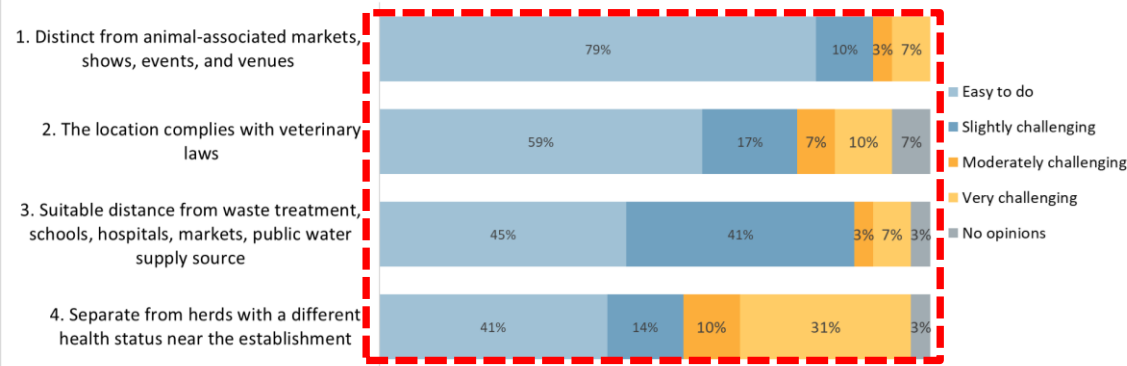


Figure 9: Physical and spatial factors affecting the biosecurity of the establishment

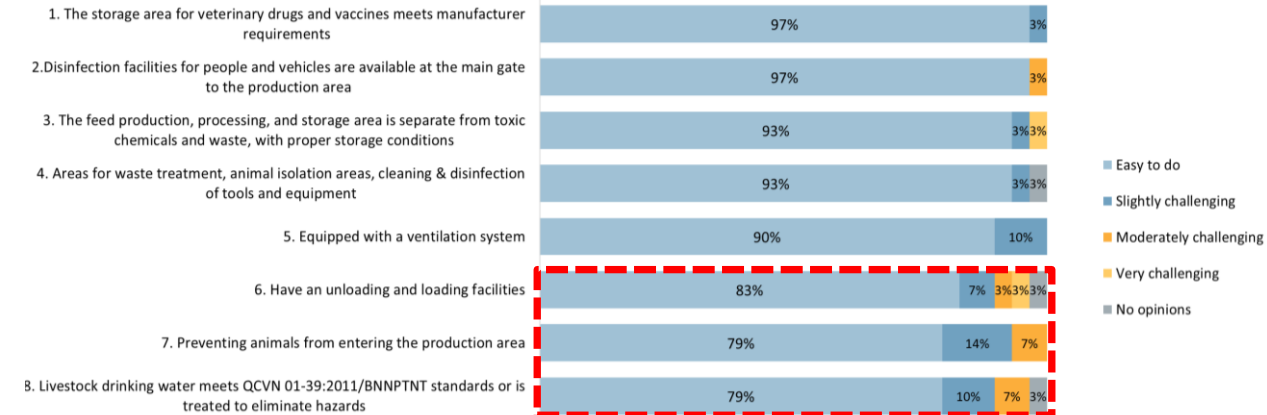


Figure 10: Infrastructure Factors

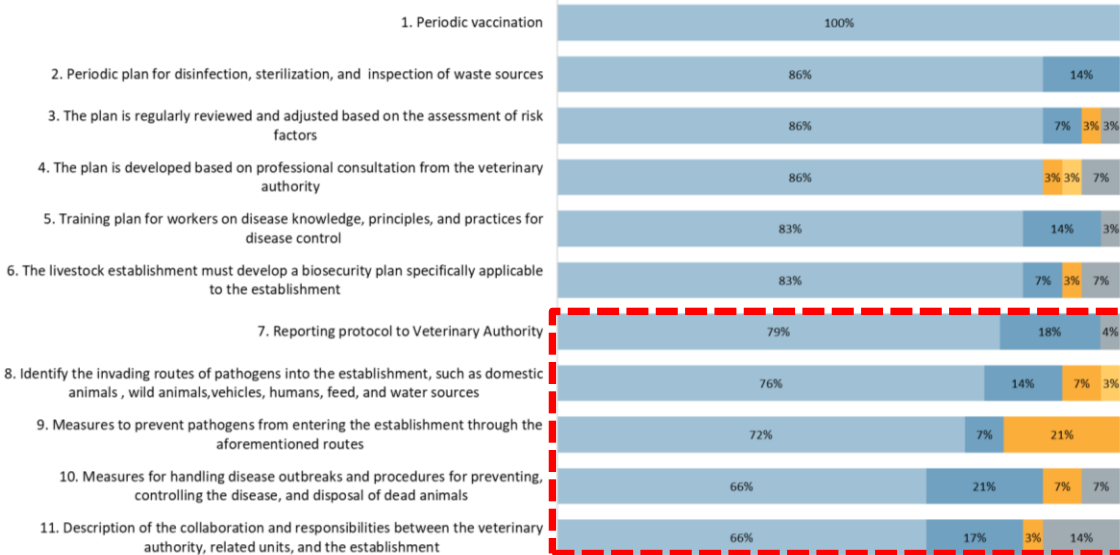


Figure 11: Biosecurity plan

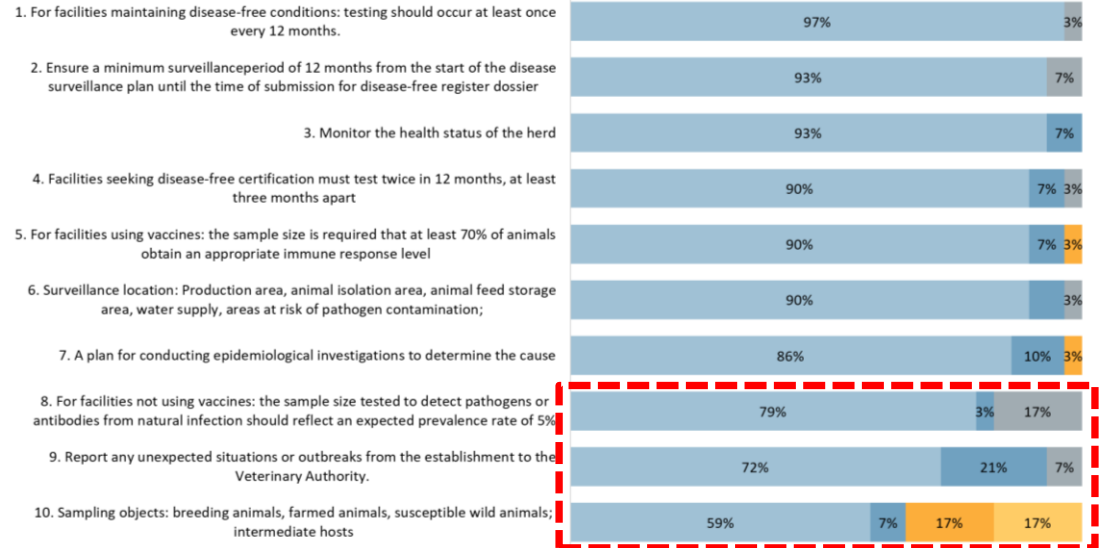


Figure 12: Surveillance plan

3.5.1.1 LEVEL OF IMPLEMENTATION OF CRITERIA

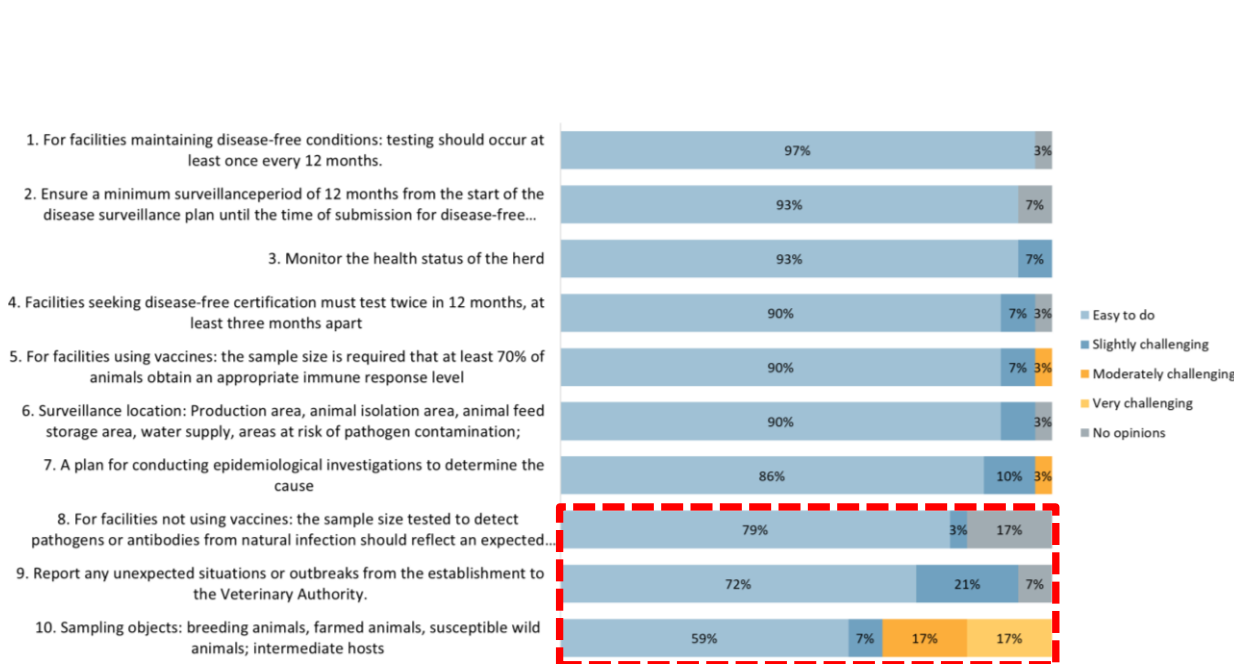


Figure 13: Response plan

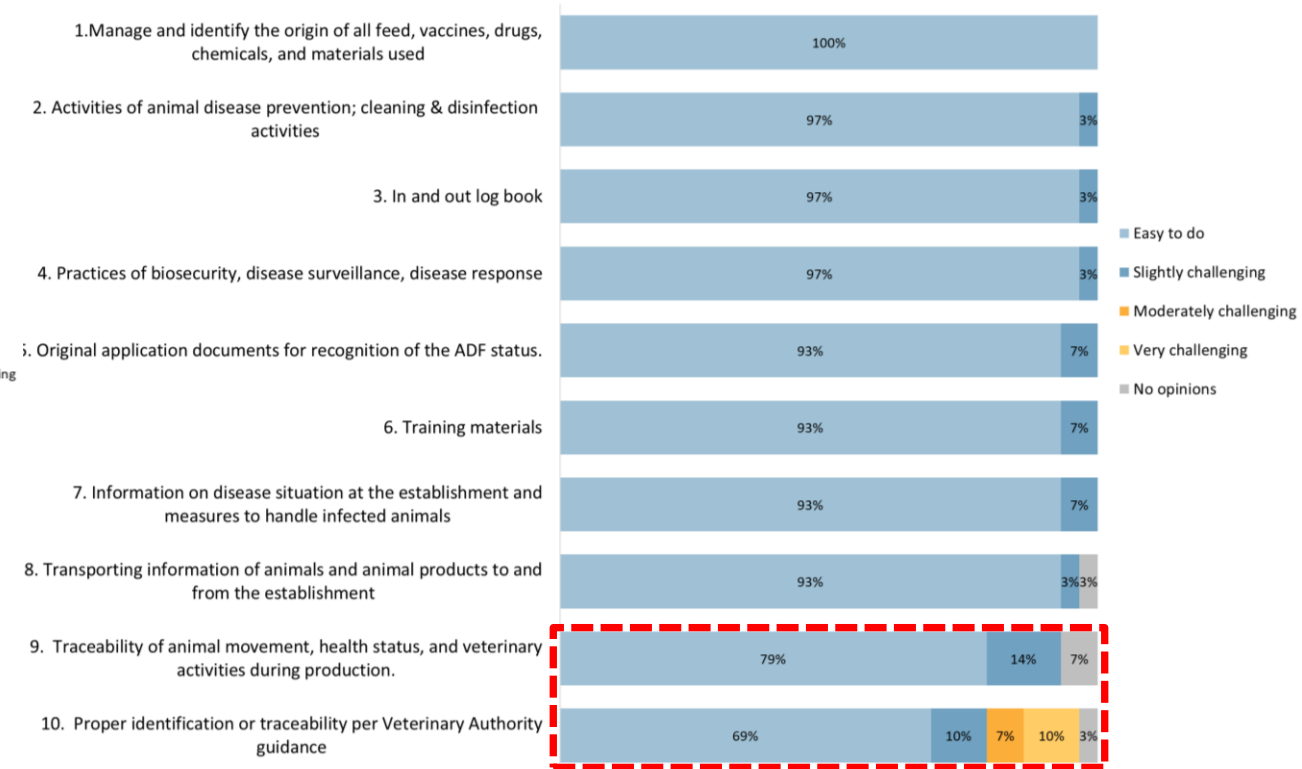


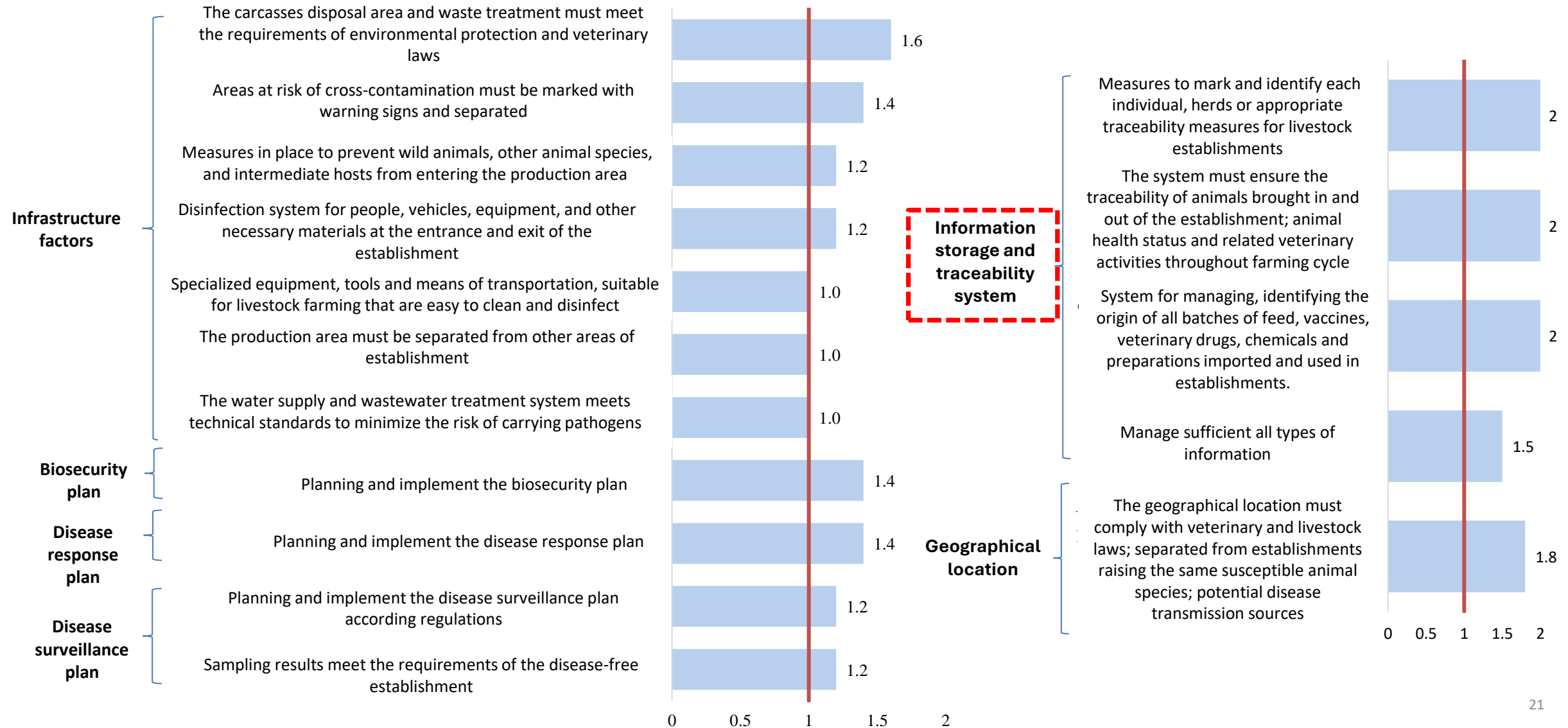
Figure 14: Information storage and traceability system

3.5 CURRENT SITUATION AND CHALLENGES IN THE PROCESS OF BUILDING AN ADF ESTABLISHMENT

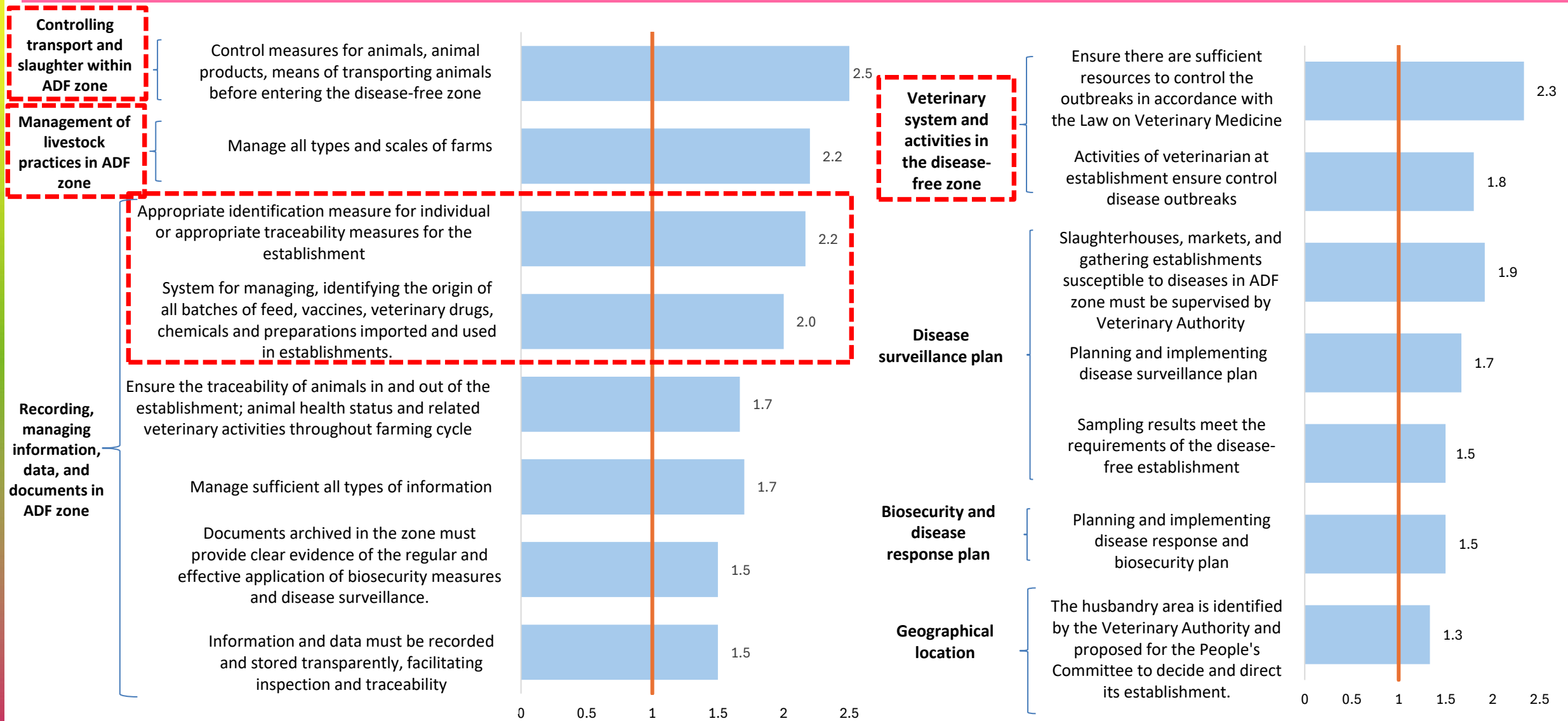
3.5.1 LIVESTOCK ESTABLISHMENTS

3.5.2 VETERINARY OFFICERS FROM REGIONAL AND PROVINCIAL VETERINARY MANAGEMENT AGENCIES

3.5.2.1 LEVEL OF IMPLEMENTATION OF CRITERIA IN ADF ESTABLISHMENT (VETERINARY AUTHORITY)



3.5.2.3 LEVEL OF IMPLEMENTATION OF CRITERIA IN THE IMPLEMENTATION OF ADF ZONES

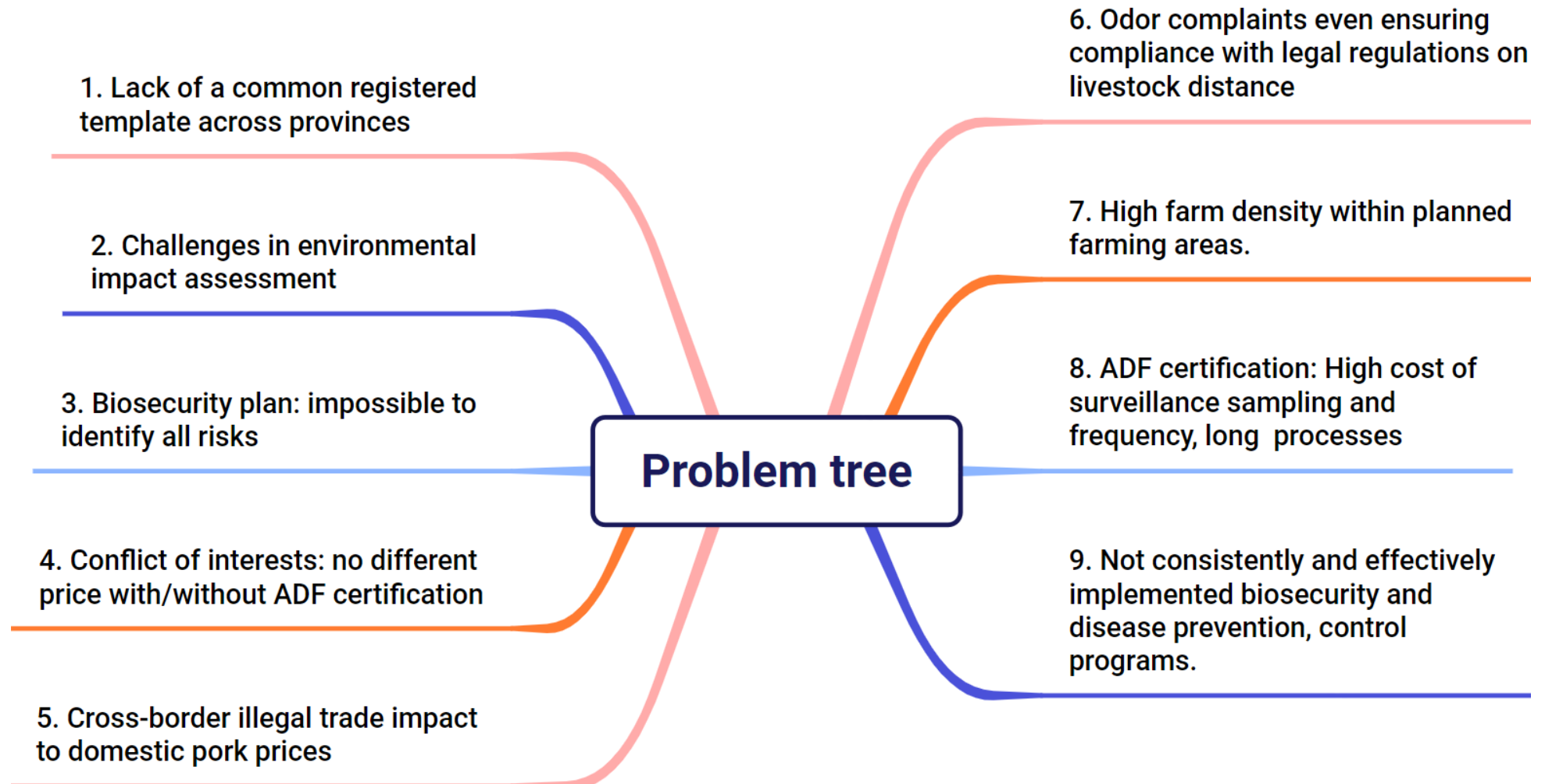


4.1 ADVANTAGES IN IMPLEMENTING ADF ESTABLISHMENT AND ZONE

- 1. Potential for large-scale livestock development:** For example, Tay Ninh and Binh Phuoc benefit from vast land, allowing proper farm spacing
- 2. Orientation towards a closed production chain:** Some pig farms aim to establish closed chains, boosting innovation, product quality, and food safety
- 3. Benefits for key livestock farming regions:** Attracting investment and modern technology, accessing quality breeding stock, adopting advanced technology, and improving processes from production to slaughter.

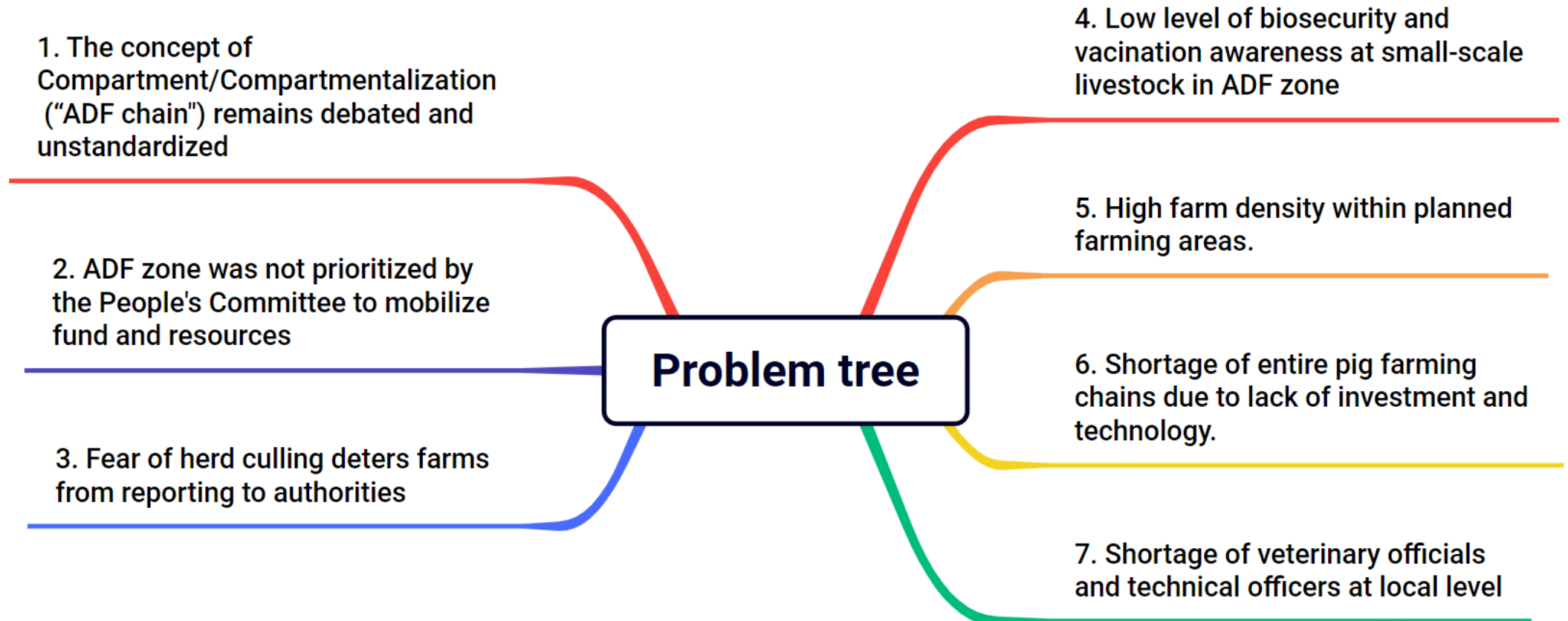
4.2 CHALLENGES AT THE FARM LEVEL

Farm level



4.1 CHALLENGES IN IMPLEMENTATION OF ADF ESTABLISHMENT AT THE GOVERNMENT LEVEL

Government level



Results from FGD at the “BIG project” restitution workshop



Group discussion of DAH, international & research organizations



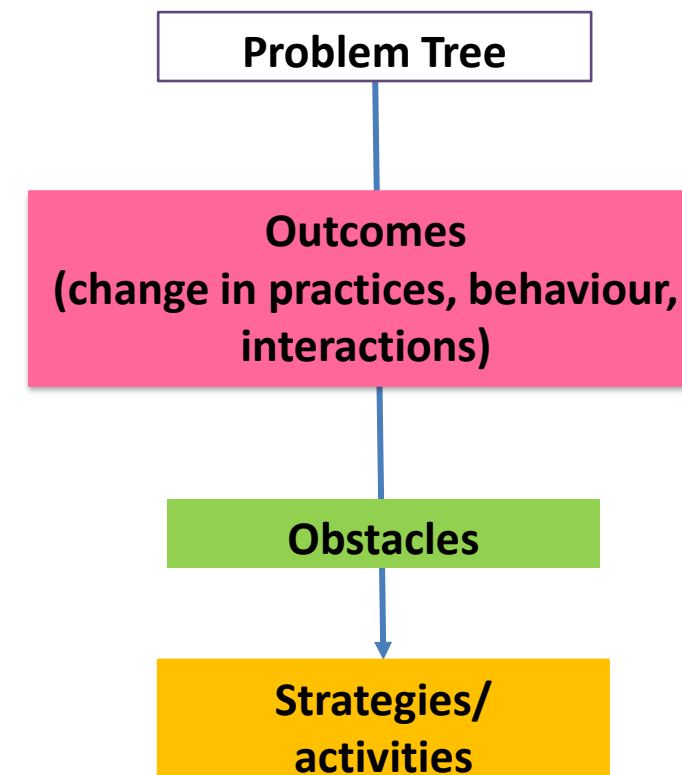
Group discussion of provincial authorities



Group discussion of farms



Panel discussion (DAH, WOA, FAO, CIRAD)



DIFFICULTY IN ODOUR TREATMENT

What are the desirable changes to solve the problem?

Outcomes

Putting forward legislation to alter the distance (at least 2km)

Relocation of non-compliance farms

Revise the legislation to reflect the realities of livestock production

Decreased livestock density

Increased waste treatment

Social security for people around the farms

Standardization of odor and distance and frequency assessment

Standardization of litter (pharmaceutical tree)
Alternatives products

What are the obstacles to these changes?

Obstacles

Lack of resource: fund (low ROI cost)

Short distance between farms

Household farms: lack of the effectiveness in biosecurity application

Waste treatment system : high cost

Lack of waste treatment guideline

Lack of strictly supervision law implement

Promulgation new law takes lots of time

Alternatives products or change feed formulation: high cost and decreased production

What strategies/actions can we implement to overcome these obstacles?

Strategies/ activities

Law: updated regularly (2 years instead of 5 years)

Company: resources investment (fund, staff, solution)

Supporting waste treatment technology and cost

Build up materials: guideline

Strengthening compliance livestock planning

Redefining roles of livestock association in connecting company and household farms

SHORTAGE OF DISTRICT AND COMMUNE VETERINARY OFFICIALS LEAD TO LATE DISEASE OUTBREAKS REPORTING

What are the desirable changes to solve the problem?

Outcomes

Require resolutions and decisions to establish no-livestock zones

Impose penalties for violations according to regulations.

Raise awareness, guide the application of biosecurity measures and vaccination for small-scale farms

Strategies to support farm transitions

Support small-scale facilities with vaccines and chemicals for proactive disease prevention.

What are the obstacles to these changes?

Obstacles

Challenges in changing livestock-raising practices of small households and awareness of disease prevention.

Lack of financial support, requiring investment mobilization

What strategies/actions can we implement to overcome these obstacles?

Strategies/activities

Management agencies at all levels need specific guidelines for implementing policies → Provincial levels should have a foundation for direction; simplify procedures.

Small-scale livestock establishments should invest more in information about diseases;

Financial support to build appropriate biosafety livestock models.

Small-scale livestock establishments calculate the economic losses if an outbreak occurs.

Career orientation to create new job opportunities.

5.1 RECOMMENDATION FROM ENTERPRISE/PRIVATE FARMS

1. **Strengthen information channels between Government agencies and farms:** Enhance communication between government and farms: share ADF zone updates, support disease prevention, and regularly update policies for sustainable livestock
2. **Frequently open training sessions** to guide the preparation of documentation and registration procedures, as well as simplify administrative procedures and reduce the minimum 12-month surveillance period until the submission of the registering dossier
3. **Enhance the capacity of small-scale farmers in applying biosecurity practices** to reduce the risk of disease transmission and increase awareness of disease prevention efforts.
4. Support funding for disease management and **organize technical training on disease response** at large-scale farms during outbreaks to minimize losses.
5. **Unify the process for sampling and register template in provinces.**

5.2 RECOMMENDATION FROM VETERINARY AUTHORITY

1. Continue **providing financial support to establish and maintain ADF zones** that have met Vietnam's regulation.
2. **Detailed guidance and consensus from WOAHA** are needed in developing an active surveillance program and post-vaccination surveillance, and at the same time optimize surveillance costs during the implementation of ADF zones according to WOAHA's standards.
3. **Specific guidance is needed in the development and monitoring of buffer zones** of the ADF zone, especially for districts in provinces outside the ADF zone (buffer zone located inter-provinces).
4. **Promoting public-private partnerships** is crucial for the successful establishment of ADF zones that meet WOAHA standards

1. Facilitating the acquisition of inspection certificates for inter-provincial pig sales and enhancing disease prevention are main goals of establishing ADFZ/ADFE.
2. Key challenges include geographical constraints (distance, odor, and farm density), animal identification, traceability, and controlling both internal and external movements within the zones, inadequate veterinary services, a shortage of government veterinary staff, and weak enforcement of biosecurity measures.
3. To align ADF zones with WOAHA standards, clarify the definition of compartmentalization, establish effective surveillance programs and improve traceability systems are essential to develop an optimal, practical program that ensures a robust and transparent certification system.
4. Public-private partnerships play a vital role in successfully implementing and sustaining ADF zoning.



Thank you for listening!

