



RÉPUBLIQUE
FRANÇAISE

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Égalité
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Biosecurity
in pig production

to control African Swine Fever



cirad

AGRICULTURAL RESEARCH
FOR DEVELOPMENT

GREASE



BIG PROJECT

Strengthening Biosecurity Measures in the Pig Industry in 4 ASEAN Countries to Control the Spread of African Swine Fever

Yogyakarta, August 2023

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CIRAD

Acknowledgements

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Outline

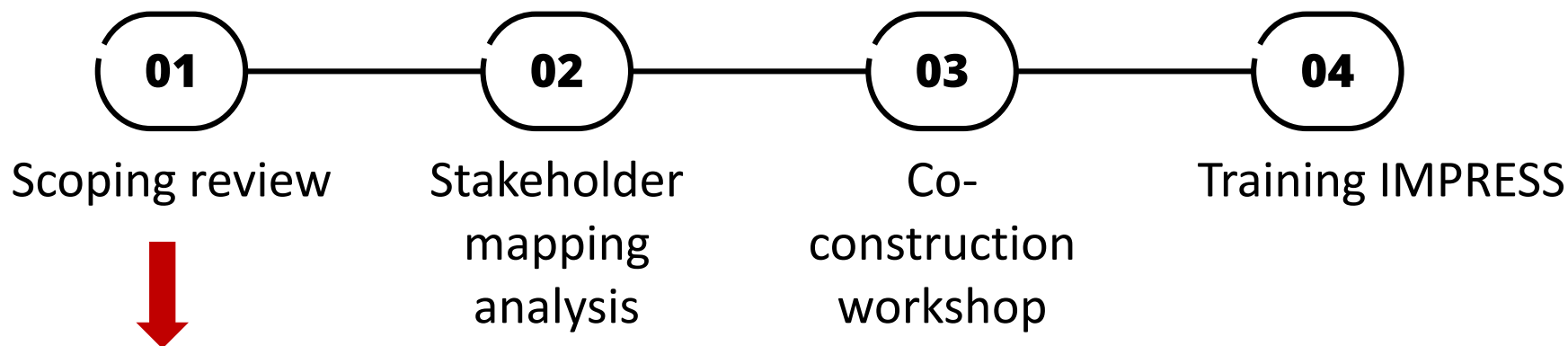
1. Introduction of BIG project
2. Background of ASF situation in Vietnam
3. Stakeholder mapping and analysis

1. Introduction

Biosecurity In piG (BIG) Project

- ❖ Conducted in 4 countries: Vietnam, Lao PDR, The Philippines and Cambodia
- ❖ Funding by the French Ministry for Europe and Foreign Affairs, as part of the France-ASEAN Development Partnership
- ❖ Objective: Identify and collaborate on socioeconomic and policymaking operations aimed at ensuring the acceptability of stricter monitoring and biosecurity measures at the national level in order to more effectively control ASF in the four countries concerned.
- ❖ Duration: 2022 – 2024 (for CIRAD).

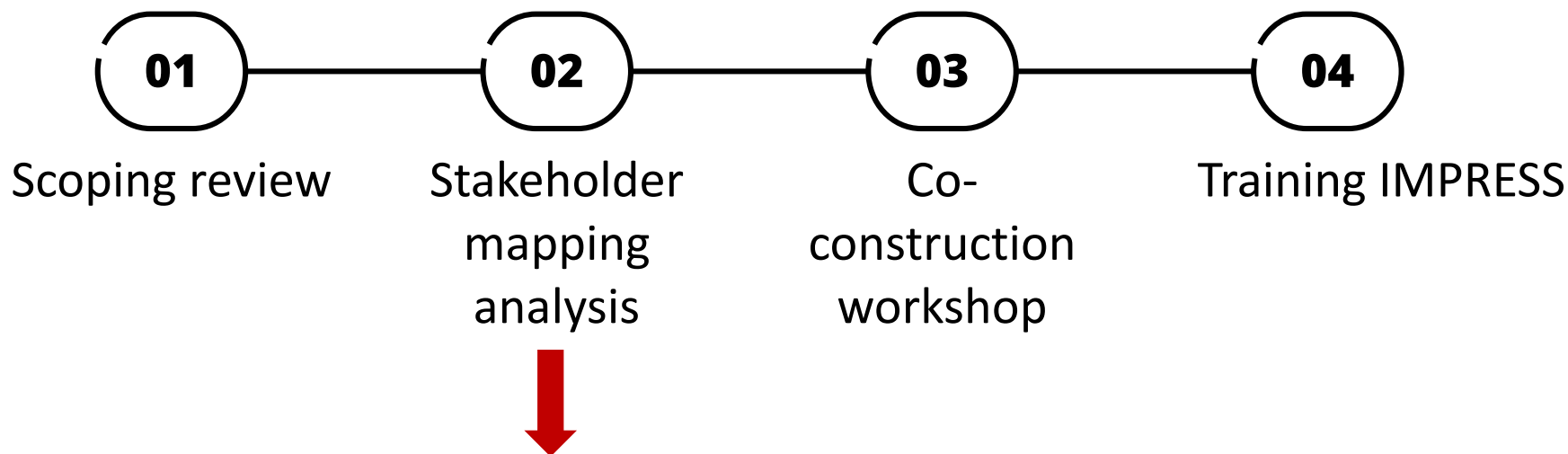
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Scoping review:

1. What was the organization of swine production at regional & national level (diseases status, value chain,..) before 2018?
2. What was the timeline of events at regional level from the first outbreak to now?
3. How did swine production organization change?
4. What were the ASF socio-economical impact at different level (micro ie farm (smallholder or commercial), meso ie industry, macro ie national)?
5. What were ASF disease control measures with a specific focus on biosecurity and vaccination at national & regional level?

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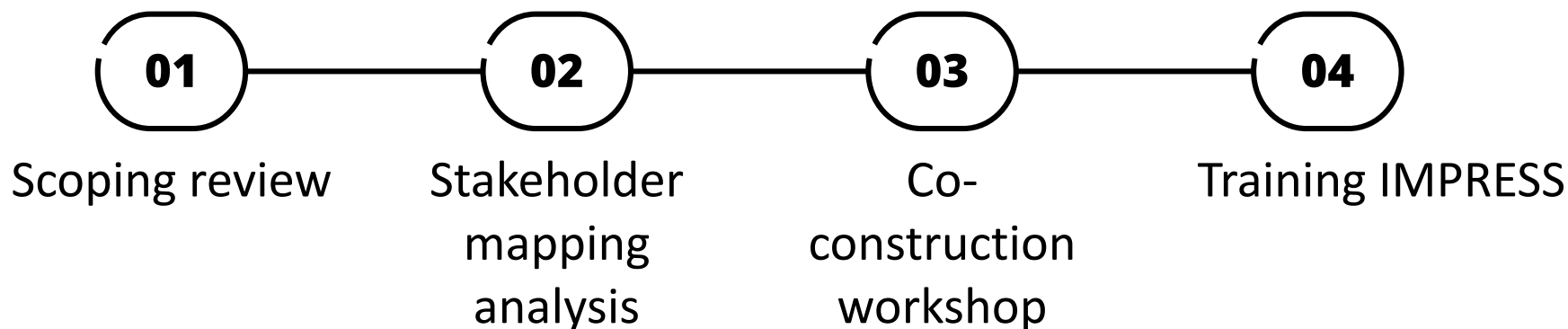
Stakeholder mapping analysis

- (1) Identify the existing national regulation of ASF surveillance and control strategies and identification of actors;
- (2) Position of the identified stakeholders toward the national legislative strategy to prevent and control ASF
- (3) Factors influencing the implementation of the regulations

The French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions



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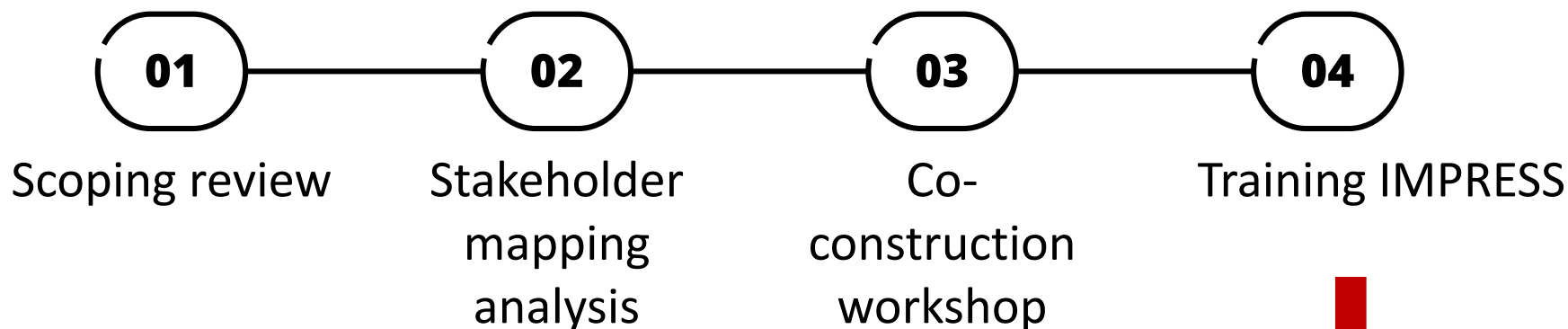
Co-construction workshops

To propose strategies adapted to the sociological context based on mutually accepted solutions and levers to promote changes in practices based on participatory workshops

The French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions



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Training IMPRESS (Webinar + on site)

Describe the methodology for assessing the impact of the project, and for identifying the drivers of change (behavioral, socio-economic, technical, institutional) and the partnerships needed to ensure the success of the initiative.

PROJECT TIMELINE

Activity	2023						2024		
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
Scoping review									
Stakeholder Mapping Analysis									
Co-construction workshop									
IMPRESS training						Before the end of the project			

Figure 1.1. Project timeline

2. Background

Baseline situation of the pig production in Vietnam

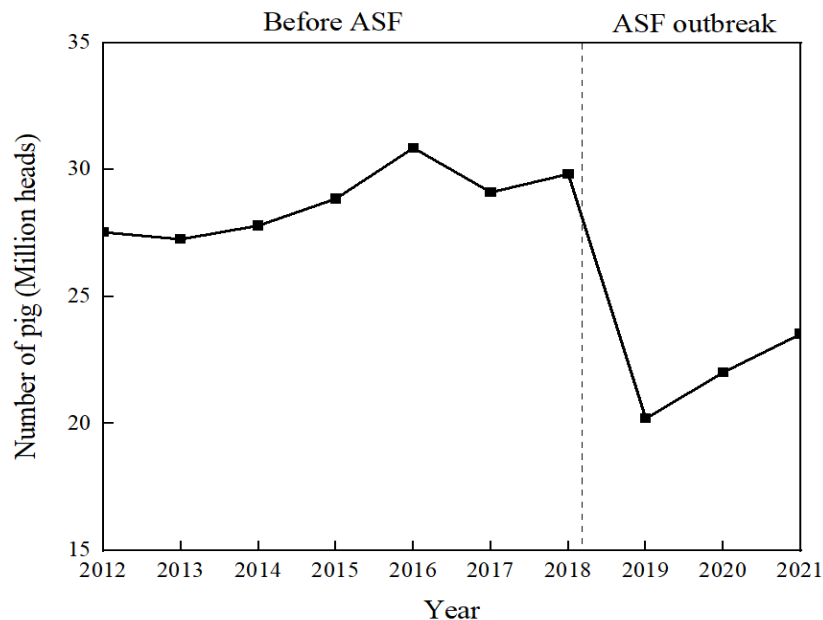


Figure 2.4. Changes in the number of pig heads

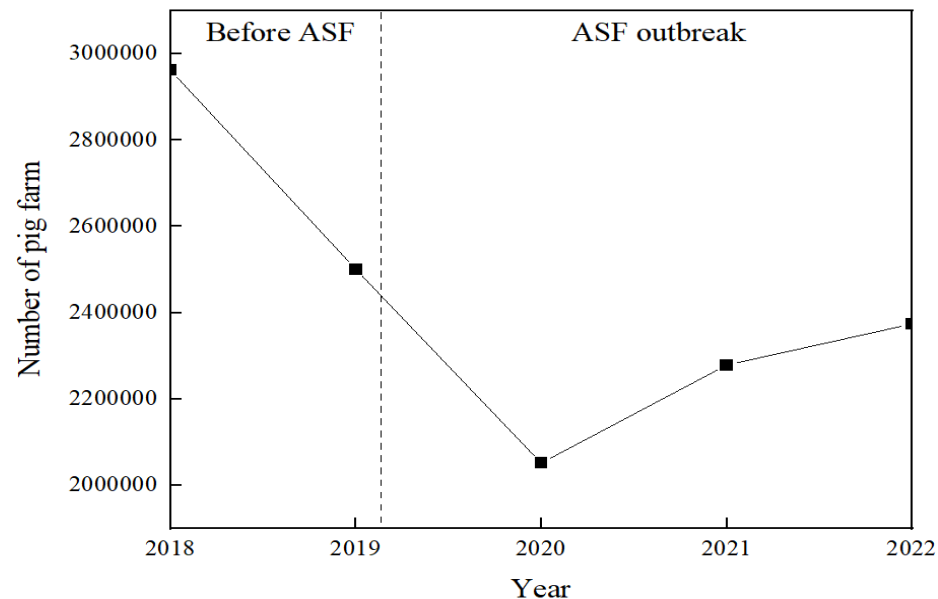


Figure 2.5. Changes in the number of pig farms

Source: GSO

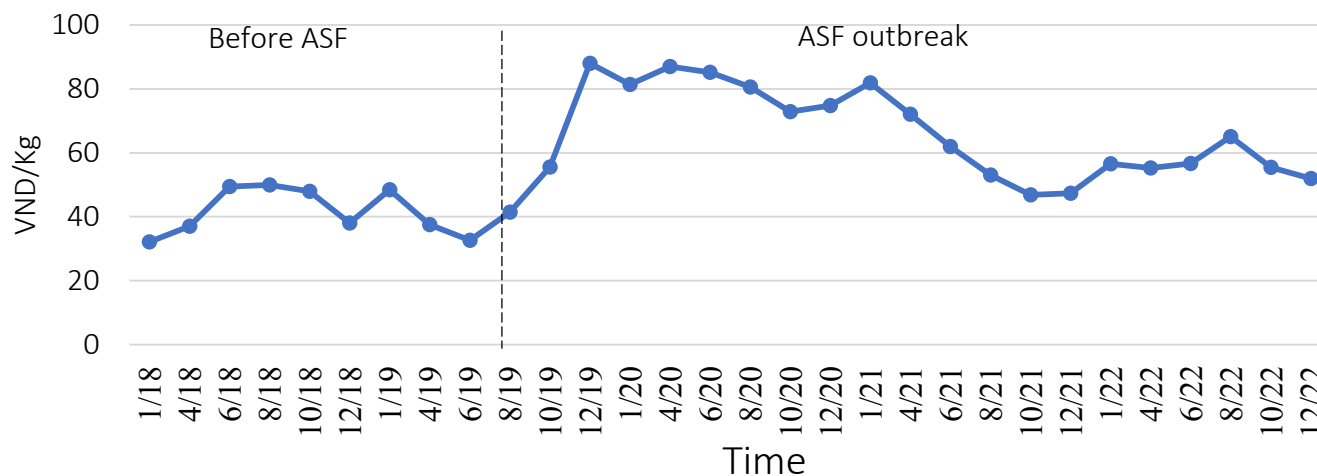


Figure 2.6. Changes in pork price

*1 dollar = 23,674 VND

Source: anovafeed.vn

2. Background

Chronological event of ASF outbreak in Vietnam

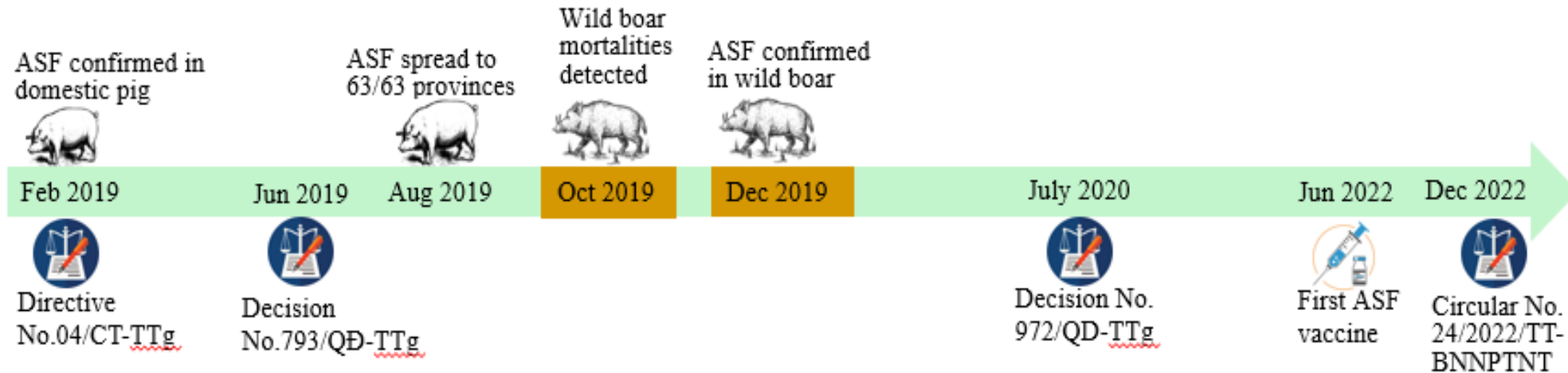


Figure 2.7. Timeline of ASF outbreak in Vietnam (updated to 2023)

- The first ASF case was detected in Hung Yen Province in February 2019, after 6 months 63/63 provinces were affected.
- During Oct - Dec 2019, some wild boar mortalities were detected and then were confirmed positive for ASFV.
- Vietnamese government issued some legislations such as Circular No. 24/2022TT-BNNPTNT, Decision No.972/QĐ-TTg.

Impacts of ASF to the pig production

Production impact

❑ Impacts on the number of pig head



❑ Impacts on the pig value chain

- 90% of outbreaks occurred in small- and medium-scale farms
- Feed industry: 30-50% decline in sales
- Decrease in volume of pigs sold due to consumer concerns over the possibility of human disease transmission from sick pigs
- Trading pattern was shifted with much greater trade occurring with large farms.

Impacts of ASF to the pig production

Socio-economic impact

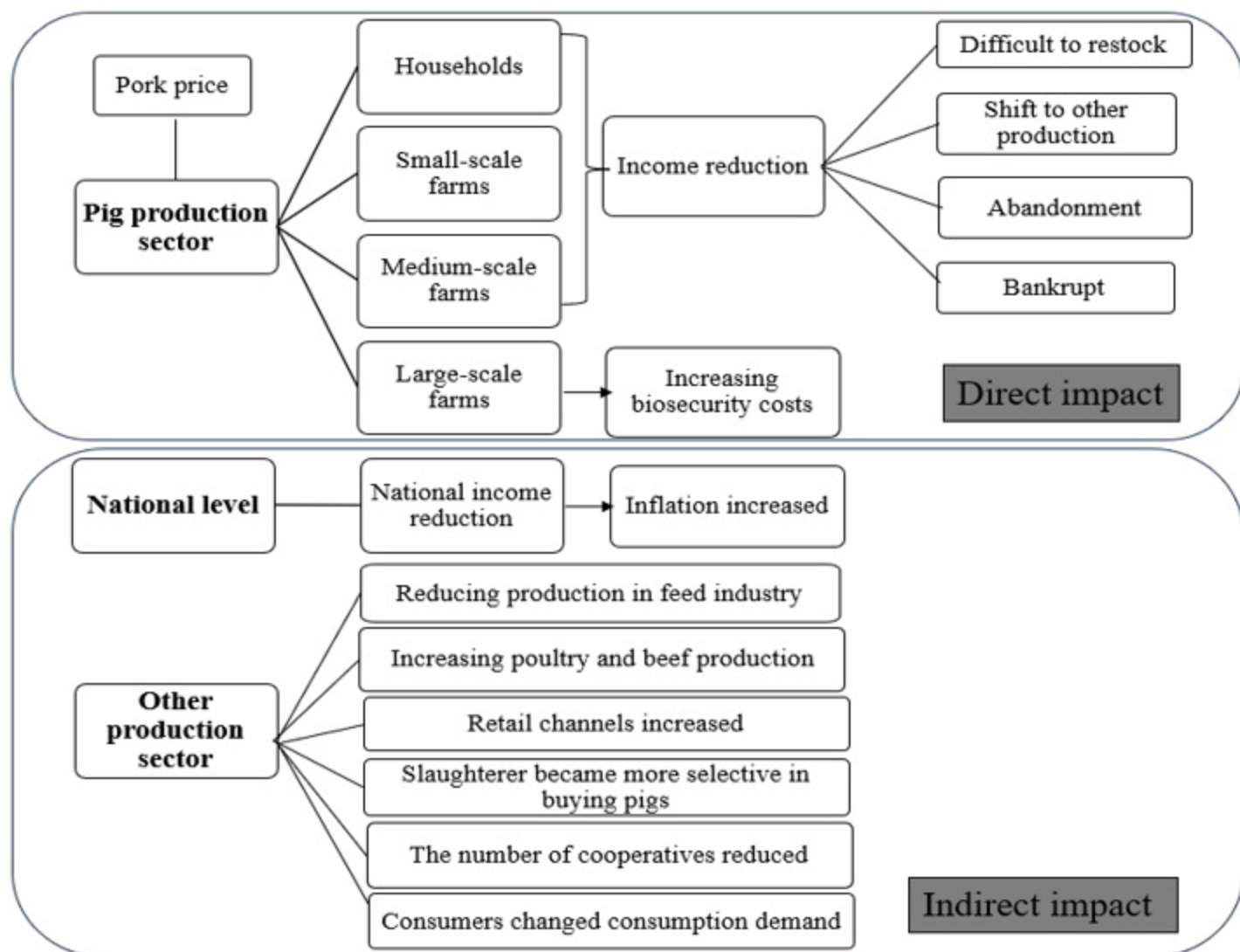


Figure 2.8. Socio-economic impacts



3. Stakeholder mapping & analysis

3.1. Methodology

Stakeholder mapping and analysis

Stakeholder definition

Actors (persons or organizations) who have a vested interest in the policy that is being promoted are considered stakeholders in the process.

What is stakeholder analysis?

Stakeholder analysis is a process of systematically gathering and analyzing qualitative information to determine whose interests should be taken into account when **developing** and/or **implementing a policy or program** (Schmeer, K. 2000).

The analysis includes Stakeholder characteristics:

- Knowledge of policy
- Interests related to the policy
- Position for or against the policy
- Potential alliances with other stakeholders
- Ability to affect the policy process (through power and/or leadership)

3.1. Methodology

Stakeholder mapping and analysis

Rationale

Literature review

Focal point meeting

Decision No.972 and Circular 24

Methods

Snowball sampling

30 Semi-structured interviews

2 Focus group discussions

Duration: March to May 2023

Location: Hanoi, Ho Chi Minh city, and Dong Nai

Step 1: Mapping of the supply chain and stakeholder interaction

Step 2: Stakeholder positions

Step 3: Stakeholder experience on ASF

Step 4: Identifying the interests and constraints of stakeholders

Decision No. 972/QĐ-TTg

National Plan for Prevention and Control of African Swine Fever, for the period 2020-2025

PRIME MINISTER

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

NATIONAL PLAN FOR PREVENTION AND CONTROL OF AFRICAN SWINE FEVER FOR THE PERIOD 2020-2025

(Attached to Decision No. 972/QĐ-TTg dated July 7, 2020 of the Prime Minister)



1. Enhancing biosecurity in pig production

- To register, update and notify of breeding activities, with local authorities, and ensure a safe distances between farms.

- To strictly apply biosecurity measures, good animal husbandry practices

2. Precautions when restocking

Restocking principles: Only repopulate pig herds in pig farms that have not been infected with ASF or infected but have passed 21 days with no reoccurrences; ensuring that biosecurity and disease-free measures have been put in place.

Circular 24/2022/TT-BNNPTNT

Regulations on animal disease-free zones and establishments

BỘ NÔNG NGHIỆP
VÀ PHÁT TRIỂN NÔNG THÔN

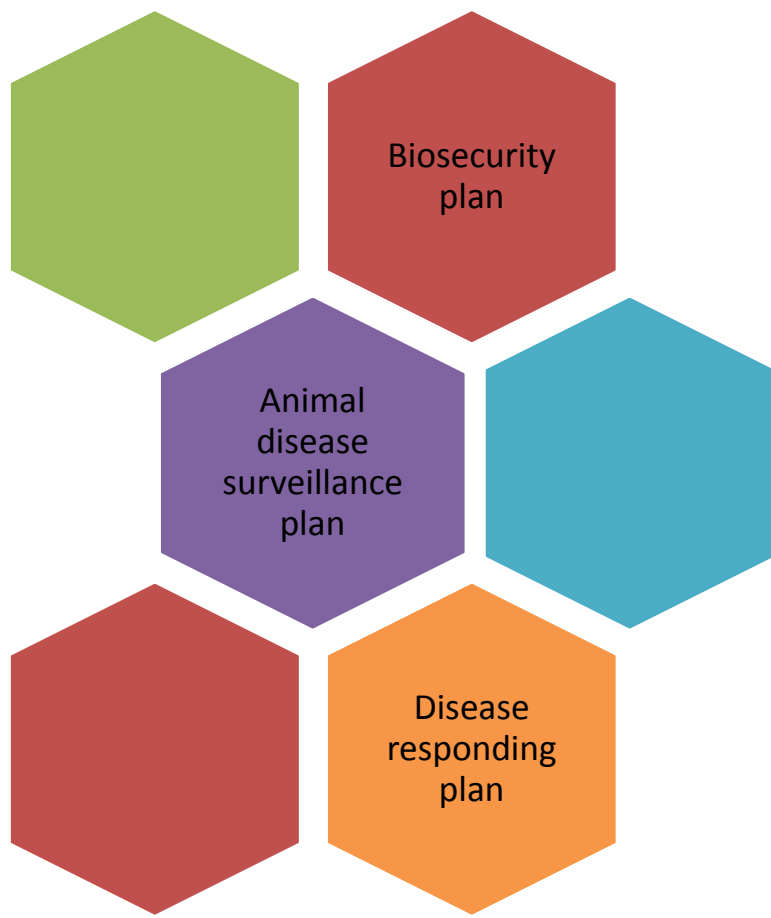
Số: 24 /2022/TT-BNNPTNT

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

Hà Nội, ngày 30 tháng 12 năm 2022

Dated in December 30th, 2022

THÔNG TƯ
Quy định về cơ sở, vùng an toàn dịch bệnh động vật



Target group

- Vietnamese and foreign organizations and individuals who wish building, registration for certification of animal disease free zones and establishments in Vietnam; and relevant government agencies

Table 3.1. Socio-demographic characteristics of 36 participants from semi-structured interviews (n=30) in Vietnam

Characteristics		(n=36)
Stakeholder category		
Government authority	Department of Animal Health	1
	Department of Livestock Production	1
	National Agricultural Extension Center	1
	Sub-DAHLP	5
	Provincial DARD	1
	Provincial Agricultural Service Center	1
	Veterinary district station	1
	Communal animal health worker	1
	National research center	3
	International research center	2
Academia		
International partner	University	4
	International organization	4
Association		
Private sector	Pig Association	1
	Drug company	1
	Integrated farms	2
	Family commercial farms	7
	Trader	1

3.2. Results

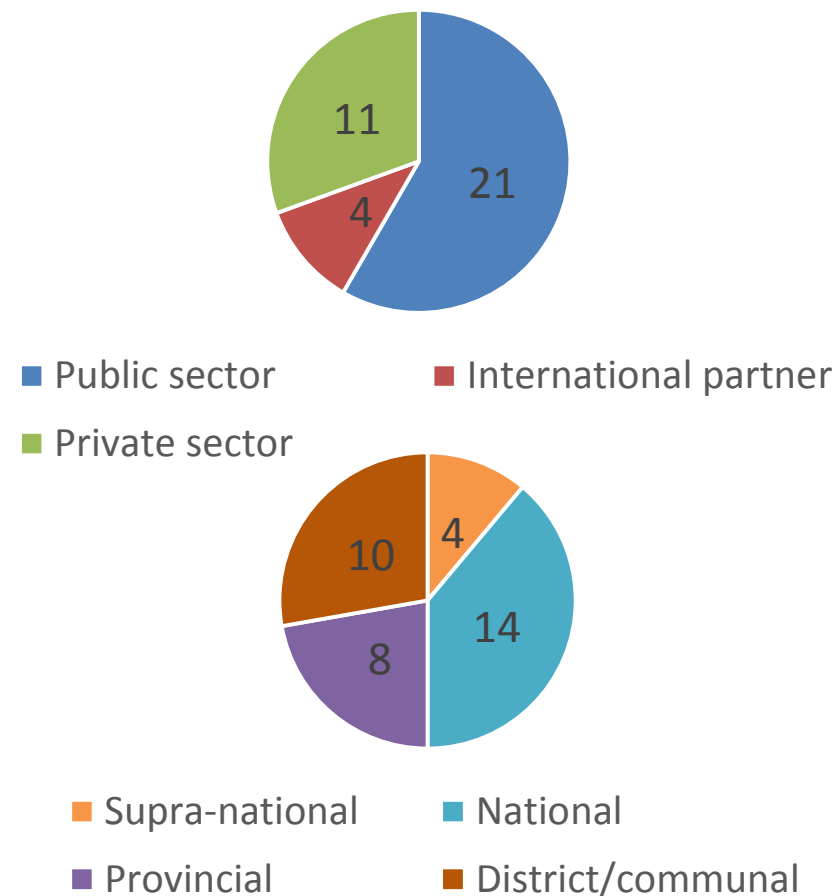
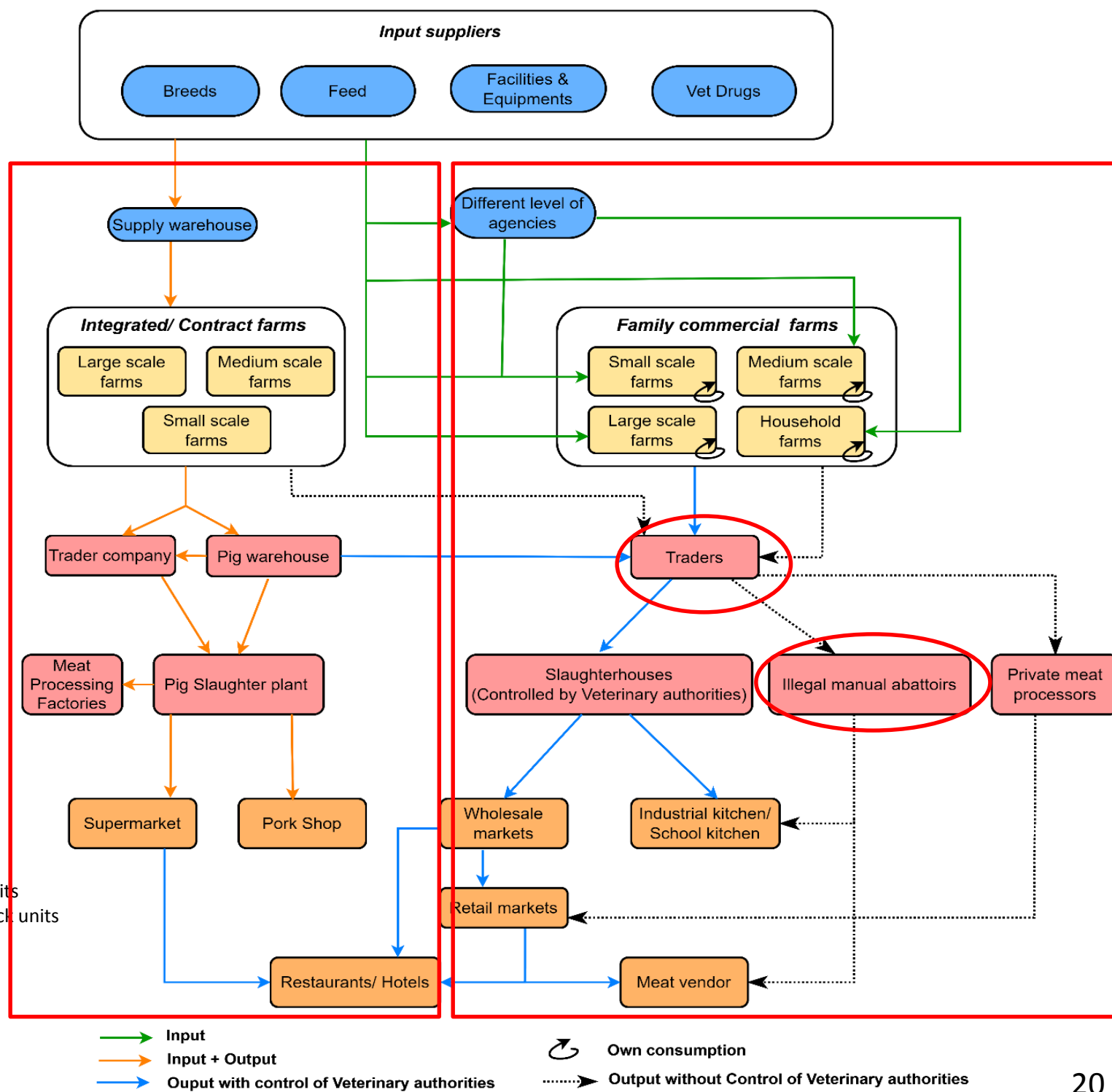


Figure 3.1. Characteristics of 36 participants of the SSI interviews (n=30) in Vietnam in 2023.

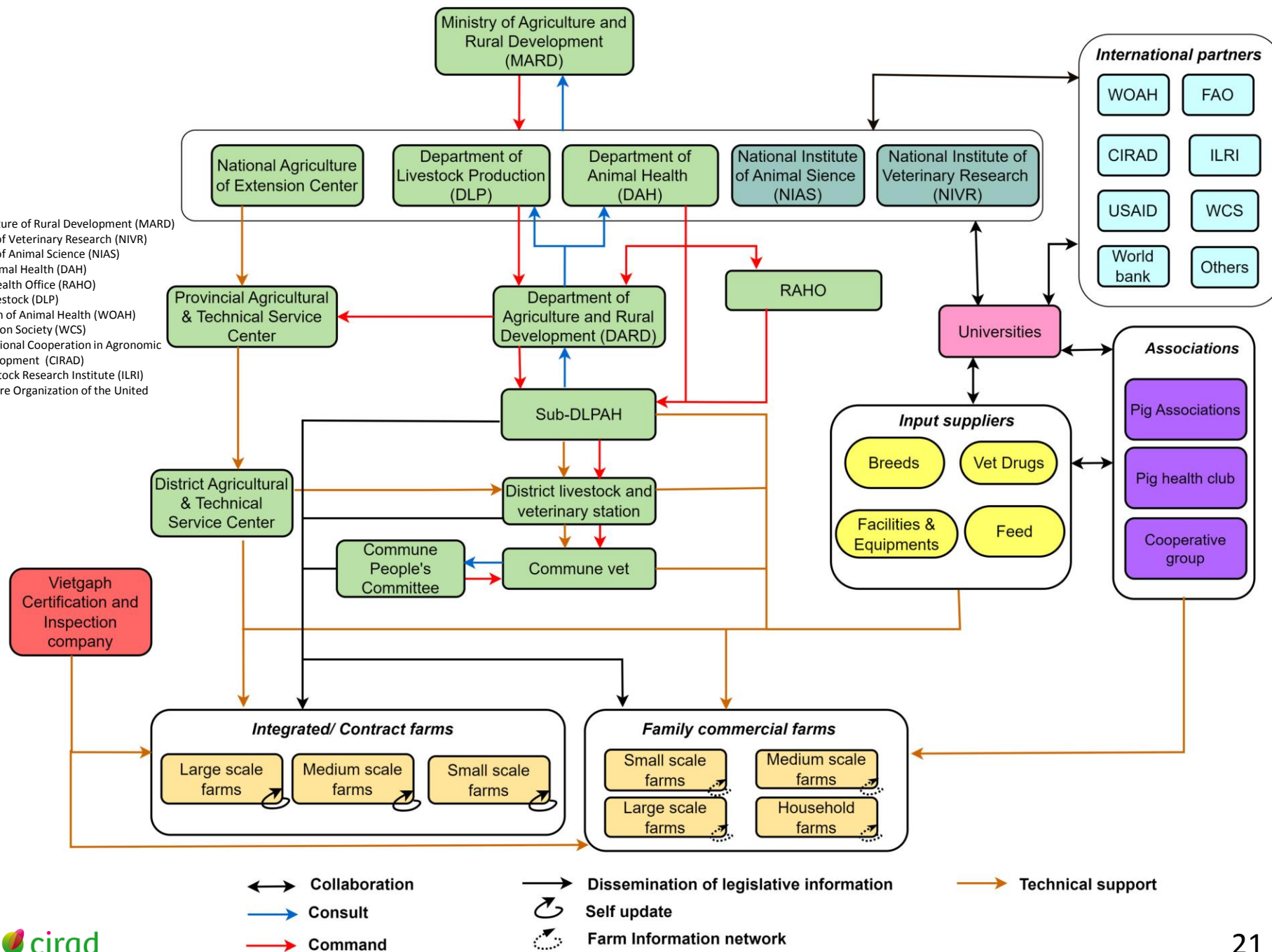
Mapping of the pig supply chain in Dong Nai province (May, 2023)



Household farm: <10 livestock units
 Small-scale farm: 10- <30 livestock units
 Medium-scale farm: 30 - <300 livestock units
 Large-scale farm: ≥300 livestock units

Mapping the interaction of stakeholders regarding ASF control strategy (May, 2023)

Abbreviation:
 Ministry of Agriculture of Rural Development (MARD)
 National Institute of Veterinary Research (NIVR)
 National Institute of Animal Science (NIAS)
 Department of Animal Health (DAH)
 Regional Animal Health Office (RAHO)
 Department of Livestock (DLP)
 World Organization of Animal Health (WOAH)
 Wildlife Conservation Society (WCS)
 Center for International Cooperation in Agronomic
 Research for Development (CIRAD)
 International Livestock Research Institute (ILRI)
 Food and Agriculture Organization of the United
 Nations (FAO)



Motivations

From the interviews and FGD

1. Applying biosecurity measures provides advantages: risk mitigation, disease prevention, farm sustainability and long-term cost savings
2. VietGAHP certification: A branding strategy that promotes the quality of the company or farm
3. Disease-free establishments registration:
 - Effective disease prevention and control measures
 - Facilitating pig transportation by granting farmers the permission to sell pigs even during regional outbreaks
 - Broaden their market channels
 - Toward to build up disease-free zone and exportation (long-term goal)

Challenges related to Circular No. 24/2022/TT-BNNPTNT: Regulations on animal disease-free zones and establishments

Stakeholder	Type of challenge	Description of the challenges
Farmers	Lack of knowledge	Inadequate knowledgeable about benefit outcome
		Lack of information about particular agencies for registration and sampling
	Lack of finance	Fairly high cost due to: - The increase of the quantity and frequency of inspections {sampling} - Hire an expert to build up the biosecurity, animal disease surveillance and responding plans
	Lack of trust	Biosecurity issue: Farmers don't want the authorities to conduct sampling as they fear visitors will contaminate their farm
	Lack of direct benefit	Farmers don't see the benefit of getting a disease-free certification: pig's price remains the same regardless of the certification
Authorities	Lack of trust	Concern about the sampling validity (accuracy) if done by the farmers themselves.

Challenges related to Decision No. 972/QĐ-TTg National Plan for Prevention and Control of African Swine Fever, for the period 2020-2025

Chapter of the regulation	Stakeholder	Type of challenge	Description of the challenge
Biosecurity	Farmers	Lack of knowledge	Farmers do not fully understand what biosecurity means
		Lack of finances	Cost requirement: investing new techniques and equipment, changing production methods (non-viable for household and small-scale farms)
		Lack of human resources	Highly skilled personnel's are required to set up and manage biosecurity measures
		Lack of will	Biosecurity measures can be too restrictive to farmers (affect freedom, thorough protocol)
Declaration of livestock activities	Farmers	Lack of time	Complicated and take time administrative procedure (declare every quarter and some criteria farmers find difficult to follow).
	Authorities	Lack of human resource	Updating animal population requires dedicated personnel
		Lack of finances	Allowance to commune vets to do the work

Challenges related to Decision No. 972/QĐ-TTg National Plan for Prevention and Control of African Swine Fever, for the period 2020-2025

Chapter of the regulation	Stakeholder	Type of challenge	Description of the challenge
Distance safety between farms and residential areas	Farmers	Lack of finances	Relocation forces farmers to build new farms and land availability are insufficient
		Lack of will (impacts livelihood)	Farmers need to find new traders and market to do business with
VietGAHP certification	Farmers	Lack of time	Complex registration process and keep track of a lot of information → Additional work
		Lack of resource	Environmental standards (waste management, pollution control and sustainability) require further investments and effort.
		Lack of direct benefit	Farmers don't see the benefit of VietGAHP certification: pig's price remains the same regardless of the certification
Inspection	Government	Institutional	No inspection certificate is required for intra-provincial trades → Increasing the risk of pigs being sold outside the province by traders due to traffic difficulties and the weak veterinary force

Recommendation

- Enhancing the farmer's awareness on biosecurity via various communication channels (radio, news, TV etc.), training sessions and model farm.
- Communicating with farmers about the benefits of practicing biosecurity and registering for the disease-free establishment certification.
- Facilitating farmers in accessing bank credit policies of banks.
- Promoting large-scale farms while maintaining the organic livestock production of small-scale farms.
- Industrial livestock production: methodological investment, application of digital technology, branding, forming deep connections (with supply chains) to provide more added values.
- Encouraging the collaboration between livestock production establishments and enterprises, so the establishments can receive technical support and a guaranteed output; eventually promoting product consumption.

Moving forward

From identified barriers, organize series of co-construction workshops:

- List main challenges and actors involved
- Change in practices, behavior, interactions...
- Identify the obstacles and levers to these changes
- Propose strategies/actions to overcome these obstacles



THANK YOU FOR YOUR ATTENTION!