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FOR ANIMAL WELFARE

TOT of PAEO and DAE0 on Humane Killing for Disease Control Purposes by Specialist Team

Mr. Amphonephet SISOUVONG

Technical of Livestock Management Division
Department of Livestock and Fisheries

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Objective

- 1. To understand of organization on killing for disease control purposes by central and local staffs ;**
- 2. To understand of role and receptibilities of central and local for killing for disease control purposes ;**
- 3. To understand of principle killing for disease control purposes ;**



Presentation covers

1. On-Field Humane killing for disease control purposes;
2. Practical points for the humane killing of animals for disease control purposes;
3. Organization of on-farm killing for disease control purposes;
4. Individuals and their duties;
5. Logistical and biosecurity issues associated with disease control at a farm- level.



Presentation covers(Continued)

- 6. Issue to the welfare of pigs in Lao PDR**
- 7. Provide some evidence-based recommendations**
- 8. Plans on future trainings**
- 9. Summary**
- 10. Reference**

1. On-farm Humane killing for disease control purposes;

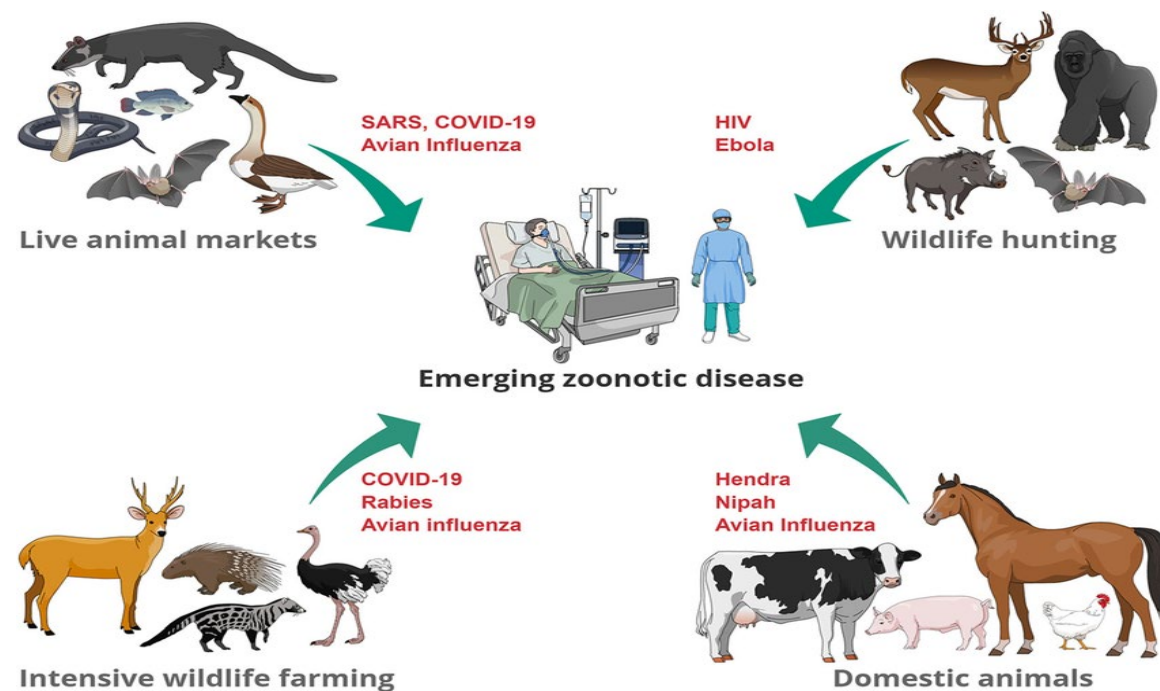
Large-scale livestock depopulation during disease outbreaks

Disease Control & Welfare: Depopulation is utilized in emergencies to prevent further spread of pathogens and alleviate welfare issues in infected or at-risk animals, as highlighted by the Humane Slaughter;

Public Health Risk: Zoonotic diseases, which transmit between animals and humans, pose significant health risks to people

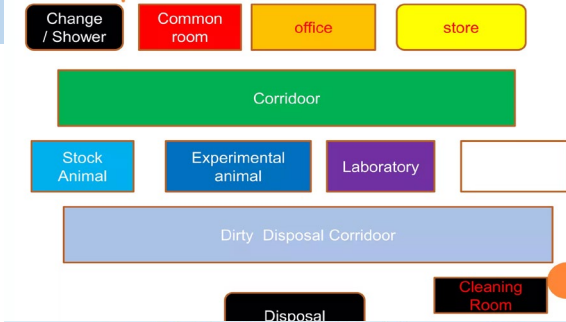
Disease Spread: Key causes of outbreaks in livestock include animal movement, shared equipment, and high-density, close-contact farming environments

Regulatory Action: Upon confirmation of a notifiable disease, authorities like the Livestock and Veterinary of Lao PDR.



2. Practical points for the humane killing of animals for disease control purposes

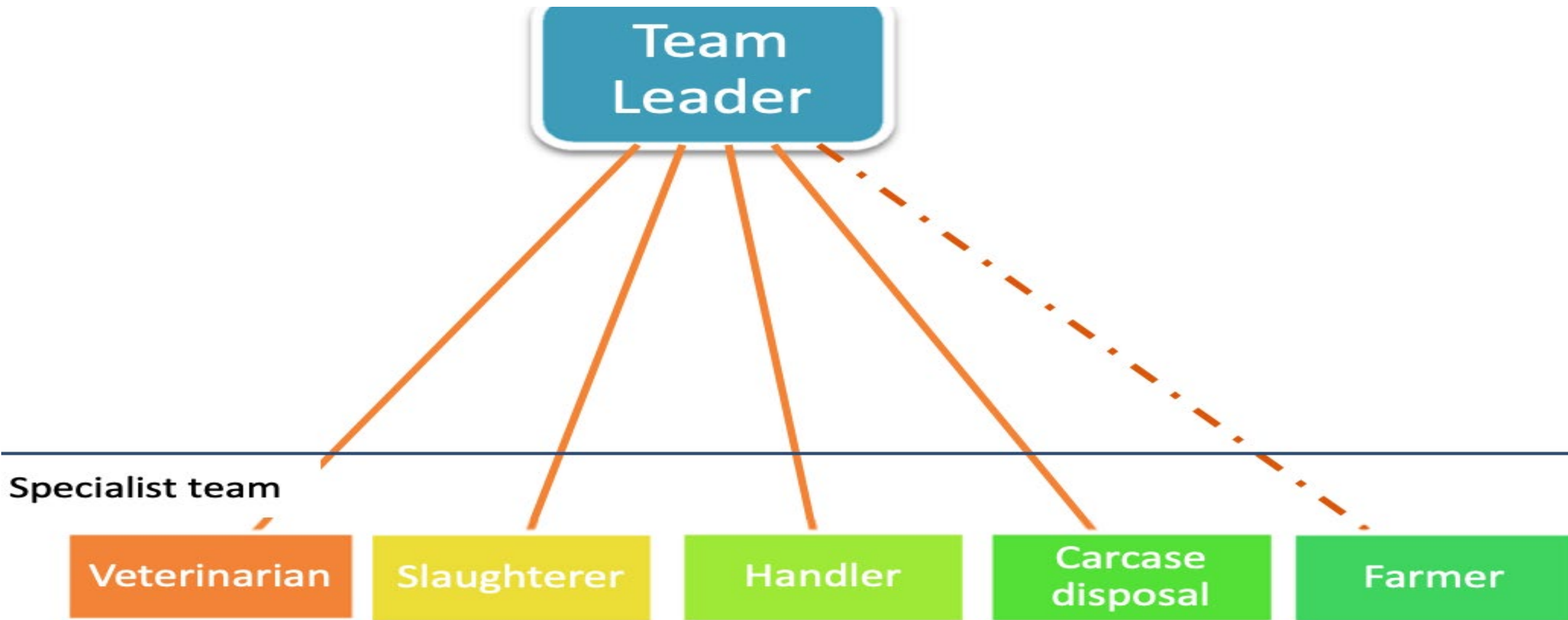
ANIMAL HOUSE DESIGNING



- Make full use of the farmer's knowledge of the farm, livestock and the resources available on the farm.
- Good communication is key.
- All personnel must have an understanding of:
 - team leadership;
 - job rotation and adequate breaks;
 - recognition of fatigue and stress;
 - the avoidance of personality clashes.
- Create a good handling system. This helps the handlers and minimises disruption when working with animals.
- Establish boundaries between “clean” and “dirty” areas and provide disinfectant and PPE.
- Remember that everyone is responsible for their own and their colleagues' safety
- On-site risk assessment is essential.
- Remember that **everyone** has a responsibility to ensure all animals are killed efficiently.



3. Individuals and their duties



4. Individuals and their duties

Team Leader

The leader of the specialist team has responsibilities to:

- plan overall operations on affected premises and develop a Killing Plan;
- determine and address the animal welfare, operator safety and biosecurity requirements;
- monitor operations to ensure animal welfare, operator safety and biosecurity requirements are met;
- organise, inform and manage a team of people to facilitate the humane killing of relevant animals on the premises, in accordance with national regulations and the recommendations provided here;
- determine the required logistics;
- report back to the IC on both progress and problems experienced;
- provide a written report to the IC at the conclusion of the killing describing the practices adopted and their effect on animal welfare, operator safety and biosecurity outcomes.

The team leader must have:

- appreciation and understanding of normal animal husbandry practices;
- appreciation and understanding of animal welfare and the underpinning behavioural anatomical and physiological processes involved in the killing process;
- appropriate skills to manage all activities on premises and deliver outcomes on time;
- awareness of potential psychological effects on farmer, team members and general public;
- effective communication skills;
- appreciation of the environmental impacts caused by their operation.



Veterinary

The role of veterinary surgeons in the specialist teams is to:

- determine and supervise the implementation of the most appropriate killing method to ensure that animals are killed without avoidable pain and distress;
- determine and implement the additional requirements for animal welfare including the order of killing;
- ensure death is confirmed by competent persons at appropriate times after the killing procedure;
- minimise the risk of disease spread within and from the premises through the supervision of biosecurity procedures;
- continuously monitor animal welfare and biosecurity procedures;
- prepare a written report in cooperation with the IC, at the conclusion of the killing, describing the practices adopted and their effect on animal welfare.

The veterinarians must be competent in their ability to assess:

- animal welfare, especially the effectiveness of stunning and killing and to correct any deficiencies;
- biosecurity risks.



Slaughter

Role and responsibilities of animal killing personnel (farm-level plans)

Animal killing personnel are responsible for ensuring the humane killing of the livestock through effective stunning and killing.

They must be competent in:

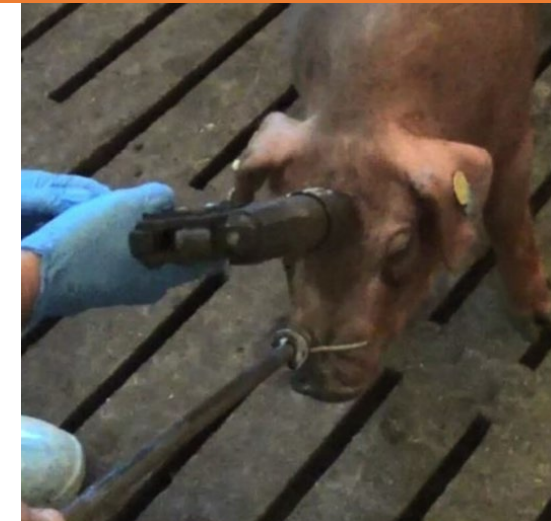
- the use of techniques required for stunning and killing the species involved;
- the use of specialised equipment and where necessary hold the correct licences required for such equipment;
- the use and maintenance of relevant equipment;
- the assessment of effective stunning and killing.

Capture Bolt

Anatomy



Stunning Electrotonic



Handler

The animal handlers:

- evaluate the suitability of on-site facilities;
- design and construct temporary animal handling facilities when required;
- move and restrain animals;
- continuously monitor animal welfare and biosecurity procedures.

The animal handlers must be competent in:

- animal handling in emergency situations including during close confinement when required;
- understanding biosecurity and containment principles.



Carcass Disposal

The carcass disposal personnel are responsible for:

- efficient carcass disposal complying with biosecurity rules;
- ensuring the carcass disposal does not hinder/affect killing operations.

The carcass disposal personnel must be competent in the:

- the use and maintenance of available equipment;
- application of techniques for the species involved.



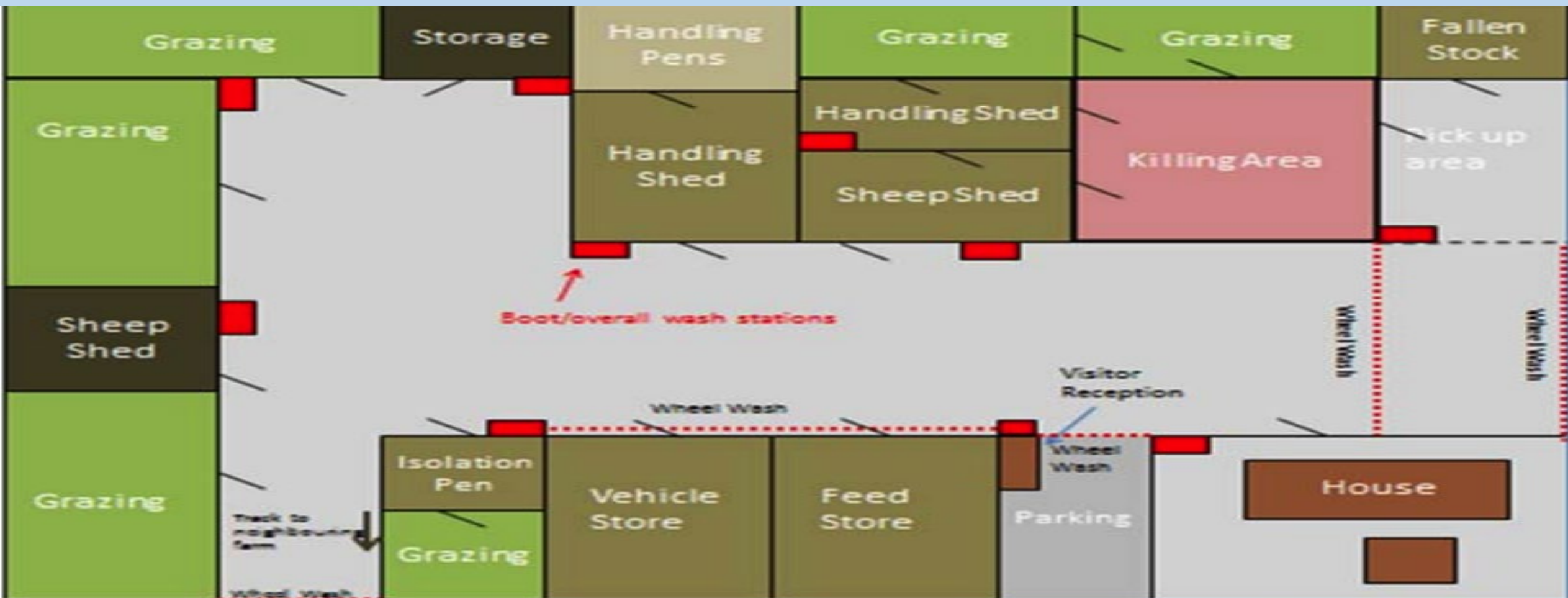
Farmers

The farm owners/managers and stockpeople must be competent in their:

- specific knowledge of their animals;
- understanding of biosecurity;
- knowledge of the local area and environment.



5. Logistical and biosecurity issues associated with disease control at a farm- level



6. Issue to the welfare of pigs in Lao PDR

High Mortality and Health Constraints:

A major welfare issue is the extremely high mortality rate among piglets, often exceeding 50% in, specifically in Northern Lao PDR, largely due to disease outbreaks and poor nutrition.

Disease Prevalence:

Smallholder pigs are frequently exposed to diseases like Erysipelas (45.2% seropositive), Classical Swine Fever (11.2%), PRRS (8.6%), and Foot-and-Mouth Disease (FMD). These diseases cause significant pain, distress, and death

Problem	Ranking of pig production constraint				Number of respondents	% ^a
	First	Second	Third	Fourth		
Outbreak of disease	197	50	24	0	271	79.5
Slow growth of pigs	59	56	44	1	160	46.9
Difficult to find feed	28	66	44	0	136	39.9
High mortality of piglets	40	70	9	2	121	35.5
Insufficient funds	2	12	8	1	23	6.7
Low price of pigs	1	6	6	2	15	4.4
Lack of labour	1	2	2	1	6	1.8
High cost of concentrate	5	0	0	0	5	1.5
Theft of pigs	0	0	2	1	3	0.9

	CSF % (95% CI)	PRRS % (95% CI)
Breed		
Exotic	75.2 (70.7–79.2)	43.6 (38.8–48.6)
Mixed	64.5 (46.9–78.9)	61.4 (43.9–76.4)
Native	59.5 (51.4–67)	24.5 (18.2–32)
Age Group (years)		
0–0.5	71.4 (66.8–75.5)	41.9 (37.2–46.7)
0.5–1	54.4 (41.6–66.6)	35.1 (24–48.1)
1–2	58.1 (45.7–69.5)	38.7 (27.6–51.2)
3–4	69.4 (53.1–82)	27.8 (15.8–44)
>4	80 (49–94.3)	40 (16.8–68.8)

6. (Continued)

Nutritional Deficiencies:

Poor, inconsistent, or lack of proper feed, particularly in remote areas, results in low productivity and poor welfare.

Lack of Resources: Smallholder farmers often lack training in, or access to, proper veterinary services, vaccinations, and biosecurity measures

NUTRITIONAL DEFICIENCY IN PIGS



**THE
IMPORTANCE
AND CHALLENGES
OF LIVESTOCK
FARMING**

6. (Continued)

Impact on Smallholder Livelihoods:

Indigenous pig raising is crucial for rural, particularly ethnic, communities, providing 9%–14% of annual household income. Poor welfare directly translates to economic loss

Emerging Intensification Issues:

As production shifts towards intensification in cities to meet rising demand, new welfare concerns arise, such as overcrowding, high-stress, and lack of exercise

Understanding the
behaviour and improving
the welfare of pigs



Understanding the
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the welfare of pigs



7. Provide some evidence-based recommendations

7.1 Animal Disease Control (Culling & Containment)

Rapid Culling and Disposal: Implement immediate culling of infected and in-contact animals, prioritizing the removal of, and, if necessary, destroying, carcasses by deep burial or burning, particularly to manage outbreaks of Diseases like Highly Pathogenic Avian Influenza (HPAI) or FMD.

Quarantine "Red Zones": Establish a strict "Red Zone" (e.g., 5 km radius) around infected areas where animal movement is restricted.

Disinfection: Use approved disinfectants (e.g., lime, formalin) to sanitize premises, equipment, and vehicles

Targeted Surveillance: Use abattoir-based surveillance to monitor for diseases like Brucellosis and Q fever, which enables targeted, data-driven culling of infected individuals

Understanding the Basics of Animal Disease Control & Quarantines



Ministry of Agriculture, Forestry and Fisheries of Cambodia



7.2 Vector-Borne Disease Control

Environmental Management:

Eliminate mosquito breeding sources, properly cover stored water, and enforce weekly "dry days" to destroy larval habitats (important for dengue and malaria).

Personal Protection:

Promote the use of insect repellents (e.g., DEET) and wearing long-sleeved clothing to reduce vector contact.



7.3 Human & Public Health Measures

Vaccination Campaigns:

Implement targeted vaccination for diseases like cholera in high-risk, flood-prone areas

Hygiene Promotion:

Educate communities on hand washing, proper food preparation, and sanitation to manage infectious diseases.



Summary

- 1. On-farm humane killing for disease control by specialist teams involves rapid, authorized depopulation using methods that cause immediate death or unconsciousness, such as captive bolts and Electrical Stunning;**
- 2. Specialized teams minimize animal suffering, handle biosecurity, and use species-specific techniques (e.g., ventral neck cuts for poultry) under veterinary supervision;**
- 3. Governmental and developmental efforts have been made to combat these issues, including initiatives to improve farming practices, raise awareness of disease prevention, and introduce better feeding strategies, particularly through training targeting women, who are often responsible for animal management.**

Plans on future trainings

1. **Strength capacity building on Local staffs on animal production for 6 Provinces in Lao PDR support by Greater Mekong Subregion Cross-Border Livestock Health and Value Chains Improvement Project (ADB Loan) ;**
2. **Strength capacity building on Local staffs on registration and certification on animal farms for 2 provinces support by Korea-Lao PPP Cooperation Project;**
3. **Another Projects.**

References

- 1. Greater Mekong Subregion Cross-Border Livestock Health and Value Chains Improvement Project;**
- 2. Capacity Building and Policy Support for Establishing a Chick Hatchery and Enhancing the Poultry Sector In Lao PDR (Korea-Lao PDR PPP Cooperation);**
- 3. Other Projects.**

Thank you



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