

Management of operations during Animal Health Emergency

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Context of Thailand

1. DLD's Authority and Mission

- Governed by Animal Epidemics Act, breeding regulations, quality control, and more.
- Emphasis on reducing epidemics and emerging diseases

2. DLD's Strategic Objectives

- Reduce the incidence of important/emerging diseases.
- Increase efficiency in surveillance, control, and diagnostics.
- Improve vaccine production and laboratory standards.

3. Legal Framework: Key Legal Acts

- Animal Epidemics Act (2015):** Controls epidemic zones, quarantine, and animal movement
- Disaster Prevention and Mitigation Act (2007):** Prime Minister as Incident Commander for large-scale AHEs

4. Budget Allocation: Relevant Budget Sources

- DLD's Annual Budget for Agricultural Strategy
- Reserve budgets from various agencies (e.g., Ministry of Agriculture and Cooperatives, Central Budget Expenditure Emergency or Necessary Reserve, etc.)
- Assistance from international organizations

5. Animal Health Risks to Monitor: Surveillance System by DLD

- Avian Diseases:** Salmonellosis, Avian Influenza, New Castle Disease
- Ruminant Diseases:** Tuberculosis, Brucellosis, Lumpy Skin Disease
- Swine Diseases:** PRRS, Classical Swine Fever, African Swine Fever
- Multi-species Diseases:** Rabies, Foot-and-Mouth Disease

6. Structure and Communication of DLD: DLD Personnel and Administration

- Central Administration (CA) and Provincial Administration (PA) structure
- Regional Livestock Offices (RLOs) overseeing Provincial Livestock Offices (PLOs)

7. Communication During an AHE

- RLOs as liaison between CA and PA offices
- PLOs communicate with Provincial Governors and local agencies
- Contacting external agencies (e.g., MoPH, universities) through CA

8. Key Channels of Communication

- Mapping of DLD Agencies (Figure 1)

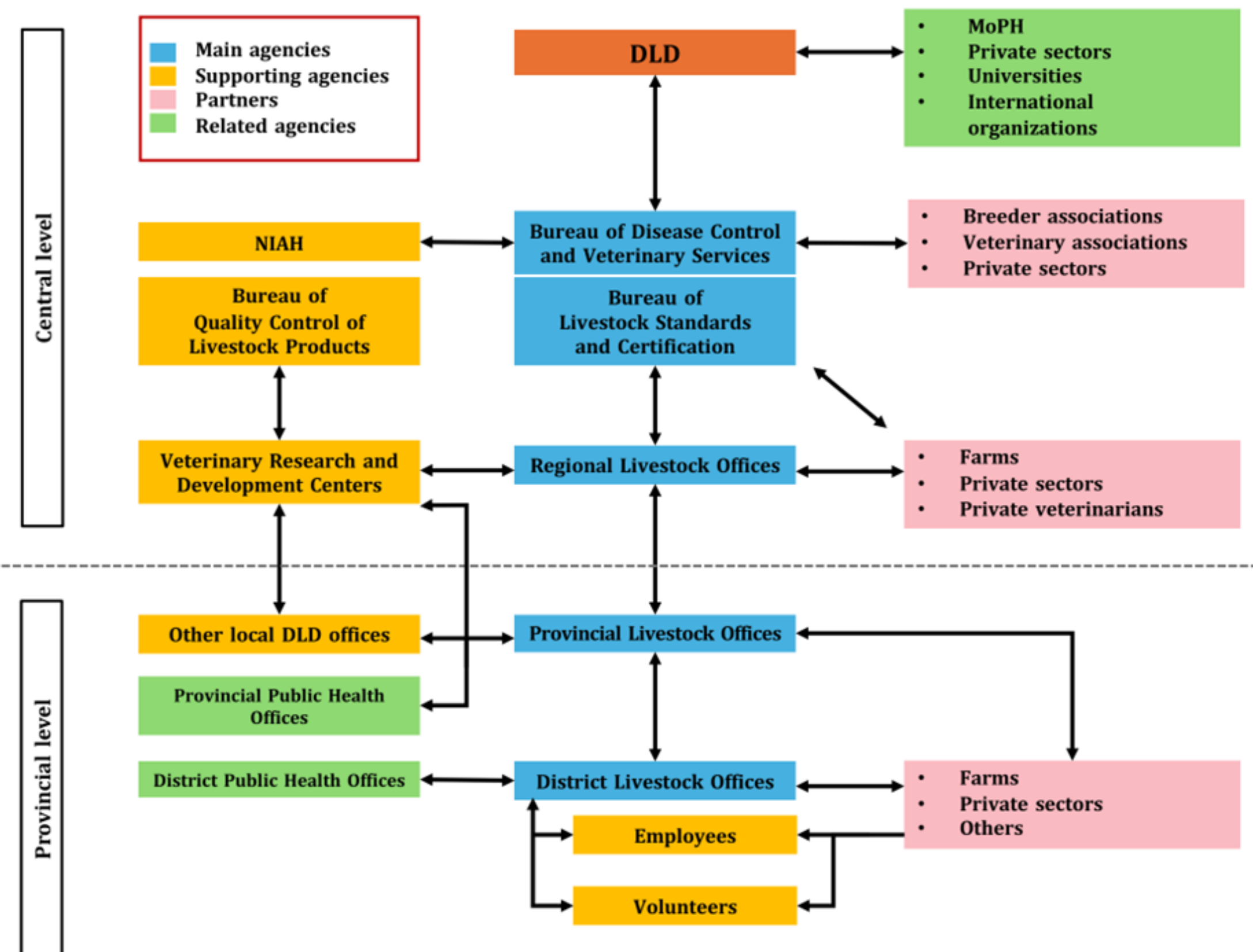


Figure 1: Forms of communication between DLD agencies at various levels.

Management of Operations During the Alert Phase

1. Reporting a Suspicion of an Animal Health Incident:

Animal health incidents (AHIs) must be promptly reported at multiple levels. At the Provincial/District level, animal owners have 12 hours to report unusual cases to the Department of Livestock Development (DLD) via phone, LINE, or email. DLOs then forward reports to PLOs and input data into the E-Smart Surveillance system. If rabies is suspected, it is recorded in ThaiRabies.Net. At the Central level, the DVIQ and ICT centers monitor social media for threats and notify the BDCVS as necessary.

2. Investigating a Suspicion of an Animal Health Incident:

Upon receiving a report, PLO/DLO officials begin a preliminary investigation within 24 hours, registering data in the E-Smart system. If zoonotic diseases, wildlife infections, or rabies are suspected, they coordinate with local MoPH or DNP officials. Samples are collected via the LIMS system for lab confirmation, and initial control measures, like movement restrictions and disinfection, may be implemented.

3. Confirmation of Suspicions:

Confirmation of AHIs is based on lab test results or case definitions. Samples are sent to VRDC for routine tests or NIAH for emerging diseases. If specialized testing is needed, samples may be forwarded to international labs. The PLO confirms cases in the E-Smart system, ensuring prompt response.

4. Response Actions During the Alert Phase:

Within 72 hours of confirmation, a detailed epidemiological investigation is conducted using the DIF-2 form in the E-Smart system. If zoonotic or wildlife diseases are suspected, further coordination with MoPH or DNP is required. Temporary animal epidemic zones may be declared, restricting movement within a 5-km radius. Disease control measures include separating and euthanizing affected animals, disinfecting premises, and planning vaccinations in the outbreak area.

5. Notification of an Animal Health Emergency:

Upon confirmation, DLD officials at various levels notify local authorities, neighboring areas, and central offices. Communication is maintained through official channels to ensure rapid dissemination of information and coordination of disease control efforts. International organizations are informed through platforms like WAHIS and EMPRESS-i.

Management of Operations During the Emergency Phase

- Declaration of an animal health emergency
- Activation of the emergency response plan
 - Generic emergency response plan
 - Incident command system (Figure 2)
 - Disease-specific emergency response plan
 - Sources of funding for emergency management
- Activation of the Emergency Operation Center
- Ensuring safety and security of personnel
- Implementation of disease control measures
 - Rapid disease characterization
 - Containment.
 - Disease control and elimination.
- Receiving reports, situation reports, and notifying the emergency
- Monitoring and evaluating the measures
- Stand down and demobilization
- Initial recovery plan

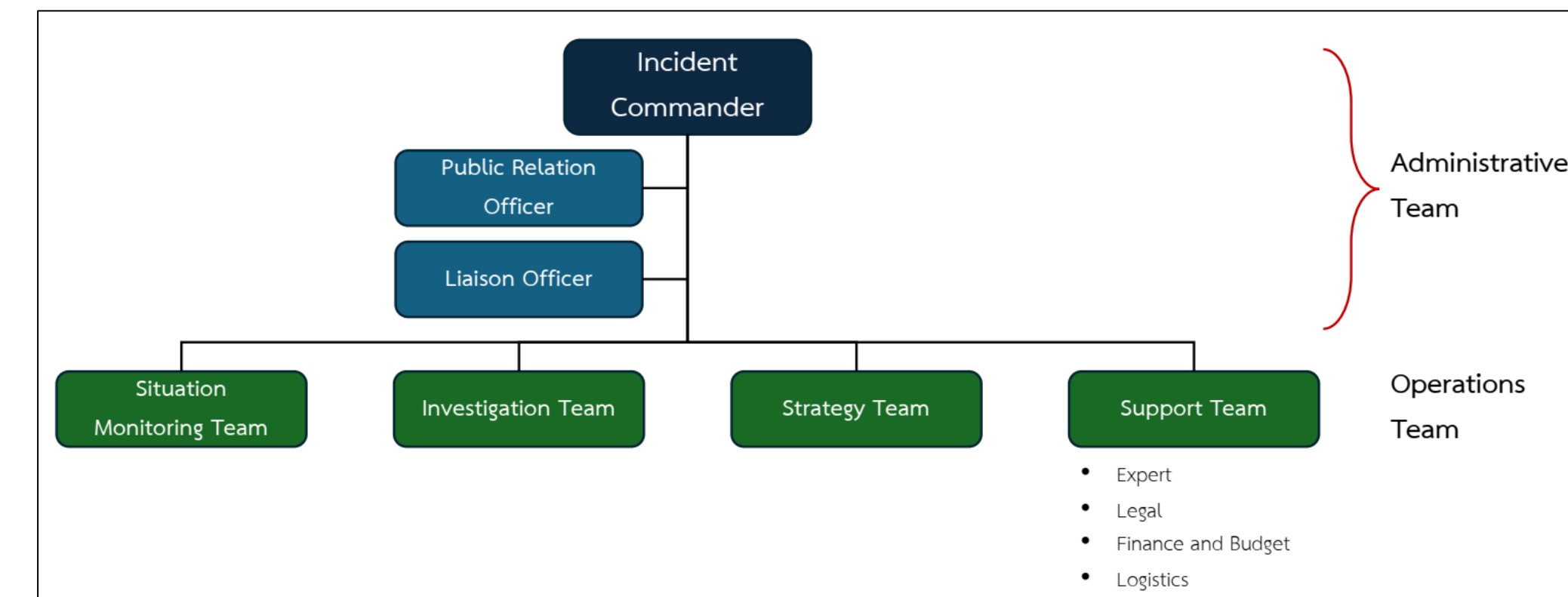


Figure 2: Incident command system for managing animal health emergencies. (modified from Manual for the management of the operations during an animal health emergency, FAO 2022)

Challenges/gaps and way forward

Challenges/gaps

Weakness

- Chain of command flowchart exists but isn't formalized for **unknown disease** scenarios.
- Incomplete SOPs** for emergency management due to unclear requirements.
- Incompletely developed and inappropriately implemented **EM system across provinces.**
- Insufficient **EMS training and field simulations.**
- Local EOCs** vary and lack flexibility for localized emergencies.
- Stock** replenishment may be **reduced if unused** within a fiscal year.
- Unused budget for compensation** may lead to reduced future allocations.
- Provincial EM fund mobilization **may not align** with central expectations.
- Early warning system **needs improvement for unknown diseases.**
- Lack of established **communication plan** for emergencies.
- SOPs** not consistently practiced at the field level.
- Non-veterinarian staff** need more training.
- Outdated and fragmented database** hinders emergency response.
- Challenges in **enforcing** animal disease outbreak laws.
- No specific budget** for animal health emergencies.
- IT room **lacks adequate staffing** and operational planning for EOC role.
- Insufficient trained personnel to **effectively utilize technology.**

Threat

- Unknown diseases
- Funding dependency
- Climate change
- Political instability
- Border security
- Global trade
- Data issues (lack or non-standardized)
- Trade impacts
- Unprepared small farmers

Way forward

Some recommendations from weakness

- Thailand should have a Thai National Manual for the Management of Animal Health Emergencies, approved by the government, with regular simulation exercise.
- Communication responsibilities at the different administrative levels should be clearly described.
- Mechanisms for virtual EM material stocks should be explored.
- Include contractual operation staff into formal training at local level.
- Field-based simulation exercise should be included in the DLD annual work plan.
- Explore finance mechanism other than annual budget allocations.
- Budget allocations should include a dedicated budget specifically for animal health emergencies.
- Responsibilities for declaration of an emergency need to be clearly defined.
- Seeking alternative strategies to encourage cooperation from farmers
- Include training on IT tools in emergency management training
- Invest more on data management sector
- Improve extension work and training of farmers to raise awareness about foreign diseases

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