



Compartmentalization  
for Free  
Newcastle Disease, Avian  
Influenza, Salmonella  
(Avian Farm)

# Concept

means

**an animal subpopulation**

**contained in one or more establishments**

**under a common biosecurity management system**

with a distinct health status with respect to a specific disease or specific diseases:

**required surveillance**

**control and biosecurity measures**

**purpose of international trade.**

# Terrestrial Animal Health Code (OIE)

## CHAPTER 4.3. ZONING AND COMPARTMENTALISATION

### Article 4.3.1.

#### Introduction

For the purposes of the *Terrestrial Code*, ‘zoning’ and ‘regionalisation’ have the same meaning.

Establishing and maintaining a disease free-status throughout the country should be the final goal for OIE Members. However, given the difficulty of establishing and maintaining a *disease* free status for an entire territory, especially for *diseases* the entry of which is difficult to control through measures at national boundaries, there may be benefits to a Member in establishing and maintaining a *subpopulation* with a distinct health status within its territory. *Subpopulations* may be separated by natural or artificial geographical barriers or, in certain situations, by the application of appropriate management practices.

Zoning and compartmentalisation are procedures implemented by a Member under the provisions of this chapter with a view to defining *subpopulations* of distinct health status within its territory for the purpose of *disease* control and/or *international trade*. While zoning applies to an animal *subpopulation* defined primarily on a geographical basis (using natural, artificial or legal boundaries), compartmentalisation applies to an animal *subpopulation* defined primarily by management and husbandry practices related to biosecurity. In practice, spatial considerations and good management including *biosecurity plans* play important roles in the application of both concepts.

## CHAPTER 4.4. Application of Compartmentalisation

### Article 4.4.1.

#### Introduction and objectives

The recommendations in this chapter provide a structured framework for the application and recognition of *compartments* within countries or *zones*, based on Chapter 4.3, with the objective to facilitate trade in *animals* and products of animal origin and as a tool for *disease* management.

Establishing and maintaining a *disease* free status throughout the country should be the final goal for Member Countries. However, establishing and maintaining a *disease* free status for an entire country may be difficult, especially in the case of *diseases* that can easily cross international boundaries. For many *diseases*, Member Countries have traditionally applied the concept of zoning to establish and maintain an animal *subpopulation* with a different animal health status within national boundaries.

The essential difference between zoning and compartmentalisation is that the recognition of *zones* is based on geographical boundaries whereas the recognition of *compartments* is based on management practices and *biosecurity*. However, spatial considerations and good management practices play a role in the application of both concepts.

Compartmentalisation is not a new concept for *Veterinary Services*; in fact, it has been applied for a long time in many *disease* control programmes that are based on the concept of *disease* free *herds/flocks*.

The fundamental requirement for compartmentalisation is the implementation and documentation of management and *biosecurity* measures to create a functional separation of *subpopulations*.

For example, an animal production operation in an infected country or *zone* might have *biosecurity* measures and management practices that result in negligible *risk* from *diseases* or agents. The concept of a *compartment* extends the application of a 'risk boundary' beyond that of a geographical interface and considers all epidemiological factors that can help to create an effective *disease*-specific separation between *subpopulations*.

In *disease* free countries or *zones*, *compartments* preferably should be defined prior to the occurrence of a *disease outbreak*. In the event of an *outbreak* or in infected countries or *zones*, compartmentalisation may be used to facilitate trade.

For the purpose of *international trade*, *compartments* should be under the responsibility of the *Veterinary Authority* in the country. For the purposes of this chapter, compliance by Member Countries with Chapters 1.1 and 3.1 is an essential prerequisite.

# Introduction

◦ Office International des Epizootics (OIE) or World Organisation for Animal Health:

application of compartmentalisation .....

disease control program

**farm management**

**sanitation and biosecurity measures**

**surveillance and disease control**

**enhance animal health + facilitate international trade**



# Introduction

- **advantages:**
  - **has increased the role in international trade for animals and their products**
  - the disease free status of compartment can still be maintained by stringent application of measures on :
    - **Disease control**
    - **Biosecurity**
    - **Disease surveillance**
    - **Traceability)**

# Principles

## 1. Separation Of A Compartment From Potential Sources Of Infection

- **Physical or spatial factors that affect the status of biosecurity in a compartment**
- **Infrastructure factors**
- **Biosecurity plan**
- **Traceability system**



Close house system  
(biosecurity)

**Farm infrastructure**



Wheel-dip and vehicle spray  
(SPS)



# Principles

## 2. Documentation

- clear evidence showing the efficacy of biosecurity measures, surveillance, traceability and management operations which are under the supervision of the DVS
  - **Animal Movement**
  - **Records Of Production , Including Birth And Death**
  - **Source Of Feed**
  - **Laboratory Test Results**
  - **Access Log**

## PRINCIPLE 2. cont.

- **Records of illness and treatment**
- **Vaccination records consist of vaccination programs, types of vaccine for a purpose of disease prevention under supervision of licensed veterinarian**
- **Use of animal drugs or hazard substances, under supervision of licensed veterinarian**
- **Biosecurity plans and operation records**
- **Personnel training records**
- **Other records related to disease control as specified by the DVS**

# Principles

## 3. Surveillance for diseases

Plan :- suitable for the level + risk (assessed and identified) and shall consist of:

### 3.1 Internal surveillance (1X/month)

(sample collected within a compartment of the farms) :-

- determine disease prevalence; OR
- perform initial disease diagnosis

### 3.2 External surveillance (4x/year)

(sample collected from the area outside a farm) :-

- ensure the effective outcome of biosecurity plan

## Surveillance is essential because:

- tells you where your **ENEMY** is located
- how it is behaving
- how effective are your measure
- how efficient are your measure against the **ENEMY**

Say aaah..... (tracheal swabbing)







cloacal swabbing

# Principles

## 4. Diagnosis Capabilities And Procedures

### **Diagnostic laboratory of the compartment:**

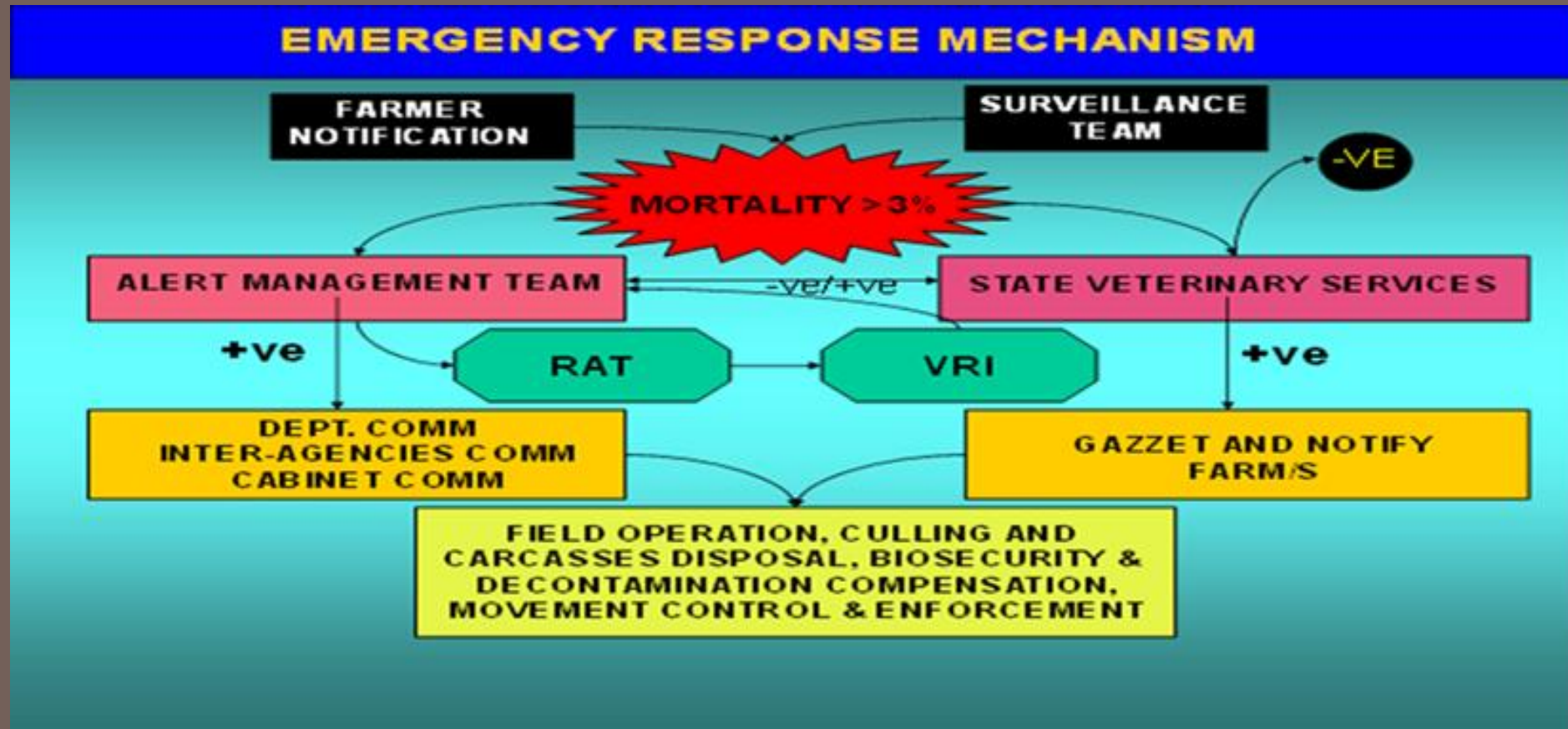
- laboratory of the DVS OR officially recognised by the DVS
- OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals related to animal disease diagnosis;
- quality assurance system of the diagnostic test result;
- rapid reporting system of the disease to the DVS's officer;
- If necessary, samples may be sent to OIE reference laboratory for re-confirmation.

# Principles

## 5. Emergency Response And Notification

...**suspicious case** or **disease outbreak** found

- **contingency plans for the compartment shall be followed**
- **DVS shall be informed**
- **case is confirmed...DVS - notify the trading partners.**



Emergency response mechanism (DVS)



# Examples





Example : Chicken farm, Pekan Nenas, Johor



# Peta Lokasi PROJEK TAMAN KEKAL PENGELUARAN MAKANAN (TKPM) SEMENANJUNG MALAYSIA

