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 the provisions of 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 OIE Members. 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, OIE Members 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 the Members with Chapters 1.1. and 3.1. is an essential prerequisite.
Article 4.4.2.

**Principles for defining a compartment**

A *compartment* may be established with respect of a specific disease or diseases. A *compartment* should be clearly defined, indicating the location of all its components including *establishments*, as well as related functional units (such as feed mills, *slaughterhouses*, rendering plants, etc.), their interrelationships and their contribution to an epidemiological separation between the *animals in a compartment* and subpopulations with a different health status. The definition of *compartment* may revolve around disease specific epidemiological factors, animal production systems, biosecurity practices infrastructural factors and *surveillance*.

Article 4.4.3.

**Separation of a compartment from potential sources of infection**

The management of a *compartment* should provide to the *Veterinary Authority* documented evidence on the following:

1. **Physical or spatial factors that affect the status of biosecurity in a compartment**

   While a *compartment* is primarily based on management and biosecurity measures, a review of geographical factors is needed to ensure that the functional boundary provides adequate separation of a *compartment* from adjacent animal populations with a different health status. The following factors should be taken into consideration in conjunction with biosecurity measures and, in some instances, may alter the degree of confidence achieved by general biosecurity and *surveillance* measures:

   a) disease status in adjacent areas and in areas epidemiologically linked to the *compartment*;
   
   b) location, disease status and biosecurity of the nearest *epidemiological units* or other epidemiologically relevant premises. Consideration should be given to the distance and physical separation from:
      
      i) *flocks or herds* with a different health status in close proximity to the *compartment*, including wildlife and their migratory routes;
      
      ii) *slaughterhouses*, rendering plants or feed mills;
      
      iii) *markets*, fairs, agricultural shows, sporting events, zoos, circuses and other points of animal concentration.

2. **Infrastructural factors**

   Structural aspects of the *establishments* within a *compartment* contribute to the effectiveness of its biosecurity. Consideration should be given to:

   a) fencing or other effective means of physical separation;
   
   b) facilities for people entry including access control, changing area and showers;
   
   c) *vehicle* access including washing and *disinfection* procedures;
   
   d) *unloading* and *loading* facilities;
   
   e) isolation facilities for introduced *animals*;
f) facilities for the introduction of material and equipment;
g) infrastructure to store feed and veterinary products;
h) disposal of carcasses, manure and waste;
i) water supply;
j) measures to prevent exposure to living mechanical or biological vectors such as insects, rodents and wild birds;
k) air supply;
l) feed supply/source.

More detailed recommendations for certain establishments can be found in Sections 4 and 6 of the Terrestrial Code.

3. Biosecurity plan

The integrity of the compartment relies on effective biosecurity. The management of the compartment should develop, implement and monitor a comprehensive biosecurity plan.

The biosecurity plan should describe in detail:

a) potential pathways for introduction and spread into the compartment of the agents for which the compartment was defined, including animal movements, rodents, fauna, aerosols, arthropods, vehicles, people, biological products, equipment, fomites, feed, waterways, drainage or other means. Consideration should also be given to the survivability of the agent in the environment;

b) the critical control points for each pathway;

c) measures to mitigate exposure for each critical control point;

d) standard operating procedures including:
   i) implementation, maintenance, monitoring of the measures,
   ii) application of corrective actions,
   iii) verification of the process,
   iv) record keeping;

e) contingency plan in the event of a change in the level of exposure;

f) reporting procedures to the Veterinary Authority;

g) the programme for educating and training workers to ensure that all persons involved are knowledgeable and informed on biosecurity principles and practices;

h) the surveillance programme in place.
In any case, sufficient evidence should be submitted to assess the efficacy of the biosecurity plan in accordance with the level of risk for each identified pathway. This evidence should be structured in line with the principles of Hazard Analysis and Critical Control Point (HACCP). The biosecurity risk of all operations of the compartment should be regularly re-assessed and documented at least on a yearly basis. Based on the outcome of the assessment, concrete and documented mitigation steps should be taken to reduce the likelihood of introduction of the disease agent into the compartment.

4. Traceability system

A prerequisite for assessing the integrity of a compartment is the existence of a valid traceability system. All animals within a compartment should be individually identified and registered in such a way that their history and movements can be documented and audited. In cases where individual identification may not be feasible, such as broilers and day-old chicks, the Veterinary Authority should provide sufficient assurance of traceability.

All animal movements into and out of the compartment should be recorded at the compartment level, and when needed, based on a risk assessment, certified by the Veterinary Authority. Movements within the compartment need not be certified but should be recorded at the compartment level.

Article 4.4.4.

Documentation

Documentation should provide clear evidence that the biosecurity, surveillance, traceability and management practices defined for a compartment are effectively and consistently applied. In addition to animal movement information, the necessary documentation should include herd or flock production records, feed sources, laboratory tests, birth and death records, the visitor logbook, morbidity history, medication and vaccination records, biosecurity plans, training documentation and any other criteria necessary for the evaluation of disease exclusion.

The historical status of a compartment for the disease(s) for which it was defined should be documented and demonstrate compliance with the requirements for freedom in the relevant Terrestrial Code chapter.

In addition, a compartment seeking recognition should submit to the Veterinary Authority a baseline animal health report indicating the presence or absence of OIE listed diseases. This report should be regularly updated to reflect the current animal health situation of the compartment.

Vaccination records including the type of vaccine and frequency of administration should be available to enable interpretation of surveillance data.

The time period for which all records should be kept may vary according to the species and disease(s) for which the compartment was defined.

All relevant information should be recorded in a transparent manner and be easily accessible so as to be auditable by the Veterinary Authority.
Article 4.4.5.

Surveillance for the agent or disease

The surveillance system should comply with Chapter 1.4. on surveillance and the specific recommendations for surveillance for the disease(s) for which the compartment was defined, if available.

If there is an increased risk of exposure to the agent for which the compartment has been defined, the sensitivity of the internal and external surveillance system should be reviewed and, where necessary, increased. At the same time, biosecurity measures in place should be reassessed and increased if necessary.

1. Internal surveillance

Surveillance should involve the collection and analysis of disease/infection data so that the Veterinary Authority can certify that the animal subpopulation contained in all the establishments comply with the defined status of that compartment. A surveillance system that is able to ensure early detection in the event that the agent enters a subpopulation is essential. Depending on the disease(s) for which the compartment was defined, different surveillance strategies may be applied to achieve the desired confidence in disease freedom.

2. External surveillance

The biosecurity measures applied in a compartment should be appropriate to the level of exposure of the compartment. External surveillance will help identify a significant change in the level of exposure for the identified pathways for disease introduction into the compartment.

An appropriate combination of active and passive surveillance is necessary to achieve the goals described above. Based on the recommendations of Chapter 1.4., targeted surveillance based on an assessment of risk factors may be the most efficient surveillance approach. Targeted surveillance should in particular include epidemiological units in close proximity to the compartment or those that have a potential epidemiological link with it.

Article 4.4.6.

Diagnostic capabilities and procedures

Officially-designated laboratory facilities complying with the OIE standards for quality assurance, as defined in Chapter 1.1.3. of the Terrestrial Manual, should be available for sample testing. All laboratory tests and procedures should comply with the recommendations of the laboratory for the specific disease. Each laboratory that conducts testing should have systematic procedures in place for rapid reporting of disease results to the Veterinary Authority. Where appropriate, results should be confirmed by an OIE Reference Laboratory.

Article 4.4.7.

Emergency response and notification

Early detection, diagnosis and notification of disease are critical to minimize the consequences of outbreaks.

In the event of suspicion of occurrence of the disease for which the compartment was defined, the free status of the compartment should be immediately suspended. If confirmed, the status of the compartment should be immediately revoked and importing countries should be notified following the provisions of Article 5.3.7. Chapter 1.1.
In case of an occurrence of any infectious disease not present according to the baseline animal health report of the compartment referred to in Article 4.4.4., the management of the compartment should notify the Veterinary Authority, and initiate a review to determine whether there has been a breach in the biosecurity measures. If a significant breach in biosecurity, even in the absence of outbreak, is detected, export certification as a free compartment should be suspended. Disease free status of the compartment may only be reinstated after the compartment has adopted the necessary measures to re-establish the original biosecurity level and the Veterinary Authority re-approves the status of the compartment.

In the event of a compartment being at risk from a change, in the surrounding area, in the disease situation for which the compartment was defined, the Veterinary Authority should re-evaluate without delay the status of the compartment and consider whether any additional biosecurity measures are needed to ensure that the integrity of the compartment is maintained.

Article 4.4.8.

Supervision and control of a compartment

The authority, organisation, and infrastructure of the Veterinary Services, including laboratories, should be clearly documented in accordance with the chapter on the evaluation of Veterinary Services of the Terrestrial Code, to provide confidence in the integrity of the compartment.

The Veterinary Authority has the final authority in granting, suspending and revoking the status of a compartment. The Veterinary Authority should continuously supervise compliance with all the requirements critical to the maintenance of the compartment status described in this chapter and ensure that all the information is readily accessible to the importing countries. Any significant change should be notified to the importing country.