CHAPTER 4.2.
APPLICATION OF COMPARTMENTALISATION

Article 4.2.1.

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 4.1, with the objective to facilitate trade in aquatic animals and products of aquatic animal origin and as a tool for disease management.

Establishing and maintaining a disease-free status throughout the country should be the ultimate 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 exist in wild aquatic animal species or 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 and biosecurity practices. However, spatial considerations and good management practices play a role in the application of both concepts.

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 aquaculture establishment in an infected country or infected 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 free zones, it is preferable that compartments are defined prior to the occurrence of a disease outbreak. In the event of an outbreak or in infected countries or infected zones, compartmentalisation may be used to facilitate trade.

For the purpose of international trade, compartments should be under the responsibility of the Competent 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 4.2.2.

Principles for defining a compartment

A compartment may be established with respect to a specific disease or diseases. A compartment should be clearly defined. This should indicate, inter alia, the location of all its components including establishments, as well as related functional units (such as brood stock facilities, hatcheries, nurseries, grow-out facilities, slaughterhouses, processing plants, etc.). It should also describe their interrelationships and their contribution to an epidemiological separation between the aquatic animals in a compartment and subpopulations elsewhere with a different health status. The definition of
A compartment should encompass disease-specific epidemiological factors, the aquatic animal species in the compartment, production systems, biosecurity practices, infrastructural factors and surveillance.

Article 4.2.3.

Separation of a compartment from potential sources of infection

The management of a compartment should provide to the Aquatic Animal Health Service 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) aquatic animal populations with a different health status in close proximity to the compartment, including wildlife and their migratory routes;

      ii) slaughterhouses or processing plants;

      iii) exhibitions, ‘put and take’ fisheries, fish markets, restaurants with live fish and other points of aquatic animal concentration.

2. Infrastructural factors

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

   a) water supply;

   b) effective means of physical separation;

   c) facilities for people entry including access control;

   d) vehicle and vessel access including washing and disinfection procedures;

   e) unloading and loading facilities;

   f) isolation facilities for introduced aquatic animals;

   g) facilities for the introduction of material and equipment;

   h) infrastructure to store feed and veterinary products;

   i) disposal of aquatic animal waste;

   j) measures to prevent exposure to fomites, mechanical or biological vectors;

   k) feed supply/source.
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 *aquatic animal* movements, wild *aquatic animals*, potential vectors, *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 compliance with the *risk* mitigation 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 *Competent 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 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 *pathogenic agent* into the *compartment*.

4. **Traceability system**

A prerequisite for assessing the integrity of a *compartment* is the existence of a valid traceability system. Although individual identification of *aquatic animals* may not be feasible, the *Competent Authority* should provide sufficient assurance of traceability in such a way that their history and movements can be documented and audited.

All *aquatic animal* movements into and out of the *compartment* should be recorded at the *compartment* level, and when needed, based on a *risk assessment*, approved by the *Competent Authority*. Movements within the *compartment* need not be certified but should be recorded and documented at the *compartment* level.
Article 4.2.4.

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 production unit records (e.g. cage, pond), feed sources, laboratory tests, mortality records, visitor logbook, morbidity history, water supply and effluent treatments, 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 chapter of the Aquatic Code.

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

Vaccination records including the aquatic animal groups vaccinated, 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 Competent Authority.

Article 4.2.5.

Surveillance for the pathogenic 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, documented 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 Competent 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 targeted 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 4.2.6.

Diagnostic capabilities and procedures

Officially-designated laboratory facilities should be available for sample testing. All laboratory tests and procedures should comply with the recommendations of the Aquatic Manual for the specific disease. Each laboratory that conducts testing should have systematic procedures in place for rapid reporting of disease results to the Competent Authority. Where appropriate, results should be confirmed by an OIE Reference Laboratory.

Article 4.2.7.

Emergency response and notification

Early detection, diagnosis, notification of disease and rapid response are critical to minimise 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 Chapter 1.1.

In case of the detection of any disease not present according to the baseline animal health report of the compartment referred to in Article 4.2.4., the management of the compartment should notify the Competent Authority, and initiate a review to determine whether there has been a breach in the biosecurity measures and notify the Competent Authority. 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 Competent 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 Competent 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 4.2.8.

Supervision and control of a compartment

The authority, organisation, and infrastructure of the Aquatic Animal Health Services, including laboratories, should be clearly documented in accordance with the Chapter on the Quality of Aquatic Animal Health Services of the Aquatic Code, to provide confidence in the integrity of the compartment.
The Competent Authority has the final authority in granting, suspending and revoking the status of a compartment. The Competent 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.