

# **Actions Taken by Members of the Andean Community against Acute Hepatopancreatic Necrosis Disease (AHPND) in Shrimp Culture and Other Diseases that Affect Aquatic Animals**

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## **Abstract**

This document presents the activities carried out by the Member Countries of the Andean Community (CAN) to establish an Andean regional legal framework for the prevention, surveillance, control and eradication of aquatic animal diseases and the Andean Contingency Plan against early mortality syndrome/acute hepatopancreatic necrosis disease (EMS/AHPND) of cultured shrimp.

**Keywords:** AHPND, Andean Community, contingency planning, disease prevention and control, EMS, legal framework

## **Introduction**

Acute hepatopancreatic necrosis disease (AHPND) is among those diseases and syndromes of penaeid shrimp that have been included within the generalized term "early mortality syndrome" (EMS). It is a disease that causes high mortalities in farmed shrimp, seriously affecting production in affected countries. The disease first appeared in the People's Republic of China around 2009 and was called covert mortality disease. It has since been reported from Viet Nam, Malaysia, Thailand, Mexico and the Philippines, is suspected to be present in India, and is also suspected in, but unreported from other countries in both Asia and Latin American and the Caribbean (LAC).

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The devastation caused by AHPND in Asian shrimp farms awakened the concern of LAC countries and prompted the General Secretariat of the Andean Community (la Comunidad Andina, CAN) (Bolivia, Colombia, Ecuador and Peru) and the Servicios Oficiales de Sanidad de los Animales Acuáticos (SOSAA) to convene meetings and discuss joint work to develop actions to prevent the entry of diseases affecting aquatic animals of interest to the region. During the work carried out in the various meetings and based on the provisions of Article 88 paragraph f) of the Cartagena Agreement, which states that countries should "Establish and execute common provisions and programs on plant and animal health", CAN countries agreed to work on an Andean plan to evaluate joint actions on AHPND affecting shrimp farming, with a view to preventing entry of this disease in cultured penaeid shrimp and other crustaceans in Member Countries.

### ***Decision 808 of 2016 by the Commission of the Andean Community***

The result was the issuance of Decision 808 of 2016 by the Commission of the Andean Community, which approved Measures "on the prevention, surveillance, control and eradication of diseases in aquatic animals". The objective is to establish an Andean regional legal framework for the prevention, surveillance, control and eradication of diseases in aquatic animals; approve the Andean Contingency Plan against Acute Hepatopancreatic Necrosis Disease (AHPND) of farmed shrimp; and harmonize measures and national legislation of Member Countries on this matter.

### ***Scope of the Decision***

The provisions of the Decision are applicable to all species and products capable of acquiring or transmitting important diseases of aquatic animals in the entire territory of Member Countries.

### ***Objectives of the Decision***

The following are the objectives of the Decision:

- a) Prevent or mitigate the risk of introduction and spread of aquatic animal diseases;
- b) Carry out Andean surveillance plans for early detection of aquatic animal diseases of importance to the region;
- c) Develop programmes for the control and eradication of major diseases of aquatic animals;
- d) Achieve and maintain the health status of the country or zones free of the diseases of importance to the region;
- e) Strengthen cooperation and technical assistance between Member States and with other countries in the field of aquaculture and health management;
- f) Contribute to food security;
- g) Promote health management programmes throughout the production chain; and
- h) Facilitate trade in species of aquatic animals and their products while ensuring compliance with health regulations.

The Decision also provides that the Official Services of Aquatic Animals (SOSAA) of the Member Countries are the competent and internationally recognized authorities for the management, supervision and implementation of activities related to aquatic animal health in Member Countries, and responsible for implementing and complying with the provisions of the Decision. The SOSAA will promote participation and coordination with various public authorities and the private sector to formulate and implement programmes and activities identified in the Decision. Another issue covered by the Decision is the establishment and adoption of the list of diseases of aquatic animals notifiable to the World Organisation for Animal Health (OIE) and those that are considered important to the Andean Region. Thus, CAN countries should incorporate into their procedures the obligation of timely notification in compliance with OIE guidelines and provisions. Provisions should also include systems to mitigate the economic effects arising from the application of sanitary measures.

### ***Structure of the Andean Community***

The CAN is composed of a number of organizations and institutions that are articulated in the Andean Integration System, better known as the SAI, a system allowing the CAN to function almost as does a state. Under the SAI, each organization has its role and specific functions, such as:

- The Andean Presidential Council, formed by the presidents of Bolivia, Colombia, Ecuador and Peru, is in charge of the political leadership of the CAN.
- The Andean Council of Foreign Ministers formulates foreign policy of the Andean countries on issues related to integration and, if necessary, coordinates joint positions in international forums and negotiations.
- The Commission, composed of plenipotentiaries or delegates with full powers, is responsible for formulating, implementing and evaluating integration policy on trade and investment and creates standards that are mandatory for the four countries.
- The General Secretariat administers and coordinates the integration process.
- The Andean Court of Justice controls the legality of acts of all the organs and institutions and solves existing disputes between countries, between citizens or between countries and citizens when the agreements reached within the framework of the Andean Community are not met.
- The Andean Parliament, made up of 20 parliamentarians elected by popular vote (five for each Member Country), is the body that represents the people (i.e. Andean citizens in general). It deliberates on Andean integration and proposes regulatory actions to strengthen integration.
- The consultative bodies of civil society are also part of the SAI, such as Indigenous Peoples, Workers and Employers.
- Simon Bolivar Andean University, with several locations in the region, is the educational institution.
- Financial institutions are the Andean Development Corporation and the Latin American Reserve Fund.

### ***Development of the Andean Contingency Plan Against AHPND***

The Andean Contingency Plan Against AHPND (the Plan) will be the reference document in the Andean region to develop a *Technical Manual for the Implementation of the Andean Contingency Plan Against AHPND* (the Technical Manual) containing recommended sanitary actions according to the recommendations of the OIE and the Food and Agriculture Organization of the United Nations (FAO). The document will guide the actions of the SOSAA and producers to prevent the entry of diseases or their control and eradication. The Plan includes the following:

- The Introduction, which presents the current state of aquaculture at the international and regional level
- History of the disease, the aetiological agent, the affected species and impact of the disease
- Laws in each country to implement the Andean Contingency Plan
- Responsibilities of SOSAA in monitoring compliance with the Plan
- Guidelines in preparing the Technical Manual
- Preparation of subregional regulations
- Establishment of the list of notifiable diseases
- Raising funds to implement the Plan and its accompanying Technical Manual

Under the Andean Contingency Plan, there is also a need to strengthen the technical capacity of SOSAA, which includes capacity-building in disease diagnosis (i.e. histopathology and molecular techniques) and control, and risk analysis; cooperation with international laboratories; participation in conferences, practical exercises, forums; support for scientific research; and development of public and private programmes on better management practices (BMPs).

Another aspect of the Plan is the establishment and operation of a surveillance system for disease control, including reporting of results. This requires each Member Country to establish protocols for surveillance in seaports, airports and at border crossings; conduct surveillance and control campaigns in production areas, with focus on BMPs; and establish a early-warning system and conduct continuous monitoring until the case is resolved.

Finally, it is recognized that there is a need for training programmes, dissemination of good aquaculture practices (GAPs) suited to the needs of each country, and the conducting of awareness campaigns for all stakeholders in the production chain about the transmission of infectious diseases in aquatic animals in order to prevent disease introduction and outbreaks.

### ***Technical Manual for the Implementation of the Andean Contingency Plan Against AHPND***

The Technical Manual is envisaged as the document containing the strategic actions for prevention of disease introduction. The plan for the document was approved through the Resolution Secretaría General de la CAN – SGCAN 1851 of 2016.

The prevention strategy focuses on the preservation of the health and sanitary status of the region as being free of AHPND. It includes strengthening of the technical capabilities of the SOSAA of each Member Country through training programmes for the prevention and detection of disease, as well as programmes for GAPS and biosecurity measures. It also includes building awareness among producers and civil society in order to improve the health status of aquaculture establishments and prevent the entry of diseases. Both producers and consumers need to know the disease risk in shrimp farming and how it negatively affects the socio-economic development of the shrimp culture sector and its trade.

The Technical Manual will also include intervention strategies to develop actions required to control, eradicate and report any confirmed case of AHPND should this important disease occur in CAN countries.

The following presents the general outline that will be used for the Technical Manual:

## I. GENERALITIES

### 1. Introduction

### 2. Objective

#### 2.1 Specific objectives

### 3. Legal framework

### 4. Competent Authorities

#### 4.1 Responsibilities

#### 4.2 Functions

- Functions of those responsible for the Plan
- Functions of the Epidemiological Surveillance Team
- Functions of the Education Health and Communication Team
- Functions of the Control and Eradication Team
- Functions of the Diagnostic Team
- Functions of the Administrative Support Team

### 5. Characterization of the disease

### 6. Identification of risk factors

### 7. Detection of the disease

#### 7.1 Clinical signs

#### 7.2 Detection techniques

- Histopathology
- Polymerase chain reaction (PCR)

## II. PREVENTION STRATEGIES

### 1. Actions for surveillance

#### 1.1 Case definition

#### 1.2 Disease notification

#### 1.3 Location of areas and establishments at risk

#### 1.4 Sampling

#### 1.5 Surveillance of borders

### 2. Strengthening of biosecurity

#### 2.1 Awareness and training in good practices

#### 2.2 Biosecurity measures recommendations

- Operational staff and farm personnel
- Farms and culture establishments
- Visitors

## III. INTERVENTION STRATEGY

### 1. Suspected report

### 2. Diagnosis of disease

#### 2.1 National laboratories

#### 2.2 International Reference Laboratory

### 3. Control

### 4. Eradication

#### 4.1 Depopulation and disinfection

#### 4.2 Sanitary disposal

5. Sentinelization and repopulation

6. Indemnification and compensation

GLOSSARY

FORMS

REFERENCES