



Prevention and control of aquatic animal diseases: what is the OIE doing?

02/05/2012 The production of food-producing animals in an aquatic environment is a rapidly expanding industry worldwide. In fact, production volumes are set to exceed those caught or harvested in the natural environment.

The aquatic animals produced in aquaculture consist of fish, molluscs, crustaceans and amphibians. The production techniques used are becoming increasingly sophisticated. Genetic selection plays an important part in increasing the productivity of aquaculture operations.

As a result, trade in breeding stock and genetic material has become globalised, at the same time as exports of aquaculture products for human consumption. This in turn has promoted the globalisation of pathogens that affect aquatic animals. Some sectors, such as farmed shrimp and salmon, have suffered heavy losses as a result of imported diseases, and in some cases the epizootics have had disastrous economic and social consequences.

Analysts reckon that in the aquaculture sector average production losses related to diseases currently exceed 25% worldwide. This could be due to the fact that these aquaculture sectors are a quite recent development. As a result, there is a significant time lag between the emergence of these sectors and the introduction of international and national health standards designed to prevent and control aquatic animal diseases. There has also been a delay between solutions being proposed based on the results of scientific research and tools being made available to fight these diseases, which may often be accentuated by the effects of climate change (e.g. a rise in water temperature) or pollution (acidification of water due to CO₂).

The OIE's response is based on lines of action designed to deal with these worrying changes, in a world where the production of animal protein is crucial, especially when it can help to avoid the unsustainable exploitation of natural resources and the consequent threat to biodiversity.

The first action was to draw up a list of diseases of fish, molluscs, crustaceans and amphibians of importance for aquaculture production and for the sanitary safety of international trade in genetic material, and for aquaculture products for human and animal consumption.

For each listed disease, the OIE has prepared standards on surveillance, detection and risk analysis, to be proposed for adoption by its Members. These standards are prepared by an OIE Specialist Commission elected by Member Countries and are published in the OIE Aquatic Animal Health Code. To accompany these standards, the OIE also lists standardised laboratory techniques for identifying and characterising the pathogens responsible for the listed diseases. These standards are published in the OIE Manual of Diagnostic Tests for Aquatic Animals.

These two sets of standards are updated annually by a vote of the Member Countries. They are used by Member Countries to develop national measures for disease prevention, surveillance and control, as well as to protect their territory from unwanted introductions, while avoiding the use of unjustified sanitary measures. These standards are recognised as the reference standards by the World Trade Organization (WTO).

Another line of action is to support the public and private health systems responsible for managing the aquatic animal health situation in each Member Country. These include the public and private components of the Veterinary Services as well as any other competent authority that the government has tasked with this mission. The OIE has prepared, and submitted for adoption by its Member Countries, standards on the quality of the Veterinary Services and any other competent national authority, and on the evaluation of their effectiveness. Based on these standards, a tool to evaluate these services' compliance with standards of quality has been developed. The OIE offers its Member Countries, on a strictly voluntary basis, an evaluation conducted by independent experts trained and certified by the OIE (i.e. a PVS Evaluation). The experts' report is the property of the country concerned, and can be used at a national level but may also be used at an international level to seek external funding where necessary in order to comply with the relevant standards.

The PVS Pathway also gives the country concerned the opportunity, after the initial PVS Evaluation, to ask the OIE to conduct a detailed analysis of the investments needed to achieve compliance with standards (i.e. a Gap Analysis mission) or to provide support for modernising its veterinary legislation. Over 110 countries have already made use of this OIE procedure, but so far only a small number of countries have applied for the specific procedure developed by the OIE for national systems applicable to aquatic animals.

The OIE has also asked the national Delegate of each of its Member Countries to nominate a National Focal Point for aquatic animal diseases, to be responsible, regardless of whether he or she comes under the same Ministry as the Delegate, for helping the Delegate to participate in the procedure for adopting or revising OIE standards on health and welfare of aquatic animals but also to fulfil the country's obligations as an OIE Member (e.g. disease notification and compliance with standards relating to international trade).

Focal Points receive information from the OIE in support of their work, notably through the regional seminars that are regularly held for the Focal Points of the OIE's 178 Member Countries. These seminars also provide an opportunity for Focal Points to develop regional or global networks, exchange information, share experiences and facilitate cooperation between countries that so wish.

Lastly, the OIE encourages all Member Countries to ensure that the curriculum used by veterinary education establishments worldwide provides an overview of aquatic animal health issues.

To publicise all these opportunities worldwide and to strengthen their application, the OIE organised a World Conference in Panama in 2011 on aquatic animal health and disease prevention and control methods. Over 110 countries participated in the Conference and passed a resolution encouraging the OIE to strengthen its efforts in the aforementioned fields (http://www.oie.int/eng/A_aquatic/en_presentations.htm).

This acknowledgment of the role of the OIE has enabled the Organisation to maintain its existing strategies and seek international donors to provide the necessary resources to support developing countries. It is clearly in the interests of developed countries that are free from diseases to protect themselves from potential sources of infection by helping those countries that still have disease problems to resolve them as quickly as possible.