Controlling aquatic animal disease is vital to global nutrition security

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Aquatic animal production is increasingly important for human nutrition

More fish is farmed than ever
Half of all fish for human consumption is grown in aquaculture

More fish is traded than ever
The value of seafood exports more than doubled in 10 years

Humans eat more fish than ever
World per capita fish supply is >20kg/person/yr compared to 10 in the 1960s
An important source of animal protein
More than 20% of the animal protein intake for 3 billion people
More than 50% in some less developed countries
But… the characteristics of aquaculture are drivers of disease emergence

- Rapid production growth
- High species diversity
- Rapid domestication
- Production of alien species
- High trade volumes
...the consequences of aquatic animal diseases are greater than ever

Aquatic animal diseases have:

- Destroyed fisheries resources (e.g. abalone, sardines)
- Damaged or destroyed farm productivity (e.g. OsHV-1, WSD)
- Destroyed biodiversity (e.g. crayfish plague, chytrid fungus in frogs)
- Damaged economies (e.g. AHPND, ISA).
AHPND
China (PR) 2010
Vietnam 2010
Malaysia 2011
Thailand 2012
Mexico 2013
Philippines 2014
How can we improve management of aquatic animal diseases?
1. Understand the costs and benefits of preventive and response measures

- The cost of aquatic animal disease outbreaks may be severe and extend well beyond direct impacts.
- The costs are rarely measured adequately.
- Cost-benefit analyses should be undertaken so that proportionate investments can be justified.
2. Focus on preventing the spread of transboundary diseases

- The consequences of spread may be high
- The opportunity cost of failure may be high
- Return on investment is usually highest for preventative measures.
OIE trade standards provide the mechanism
  • Need to ensure their ongoing revision
  • Need to encourage their application
3. Build resilient and responsive systems

- We know we will be challenged by new and emerging diseases
- Aquatic animal health services need to be able to meet these challenges
  - Prevention
  - Detection
  - Response.
Thank you for your attention

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