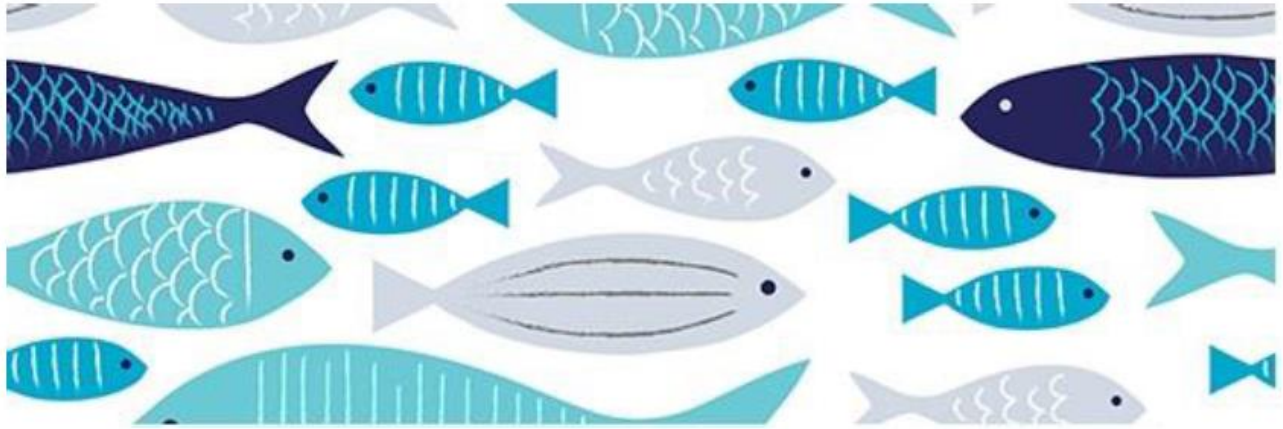
World Organisation for Animal Health
Founded as OIE

The Second Aquatic Animal Health Workshop for Central Asia and Transcaucasian countries and Central Asia and Transcaucasian Aquatic Animal Health Network

Tashkent (Uzbekistan)

24th – 26th April 2024



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Regional Workshop for WOAH National Focal Points for Aquatic Animals IV Cycle
Chioggia (Italy)
18 – 20 October 2023
M.Latini WOAH SRR Central Asia

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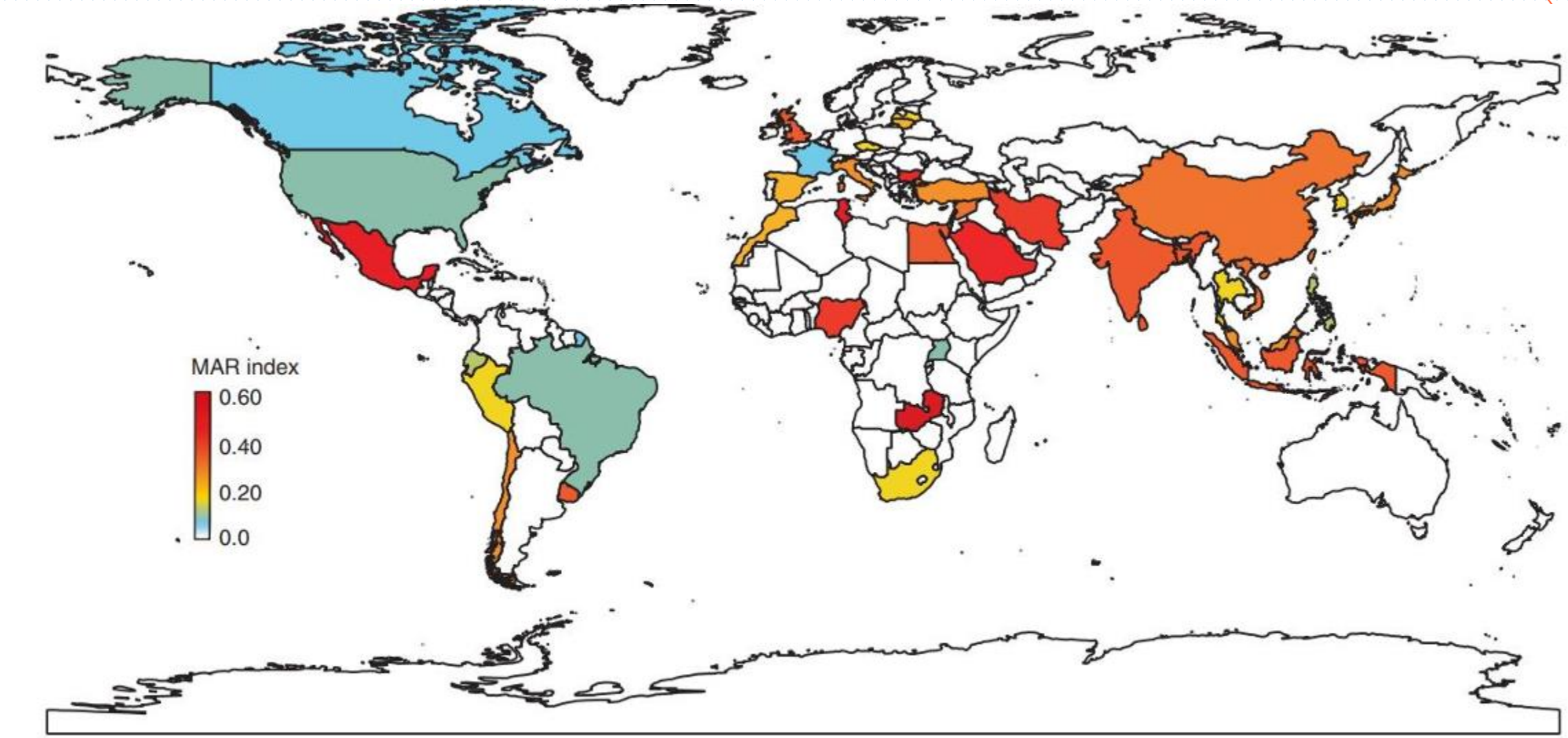

Fig. 2 Global multi-antibiotic resistance (MAR) index calculated from aquaculture-derived bacteria. No MAR index was calculated for countries in white due to data deficiency.

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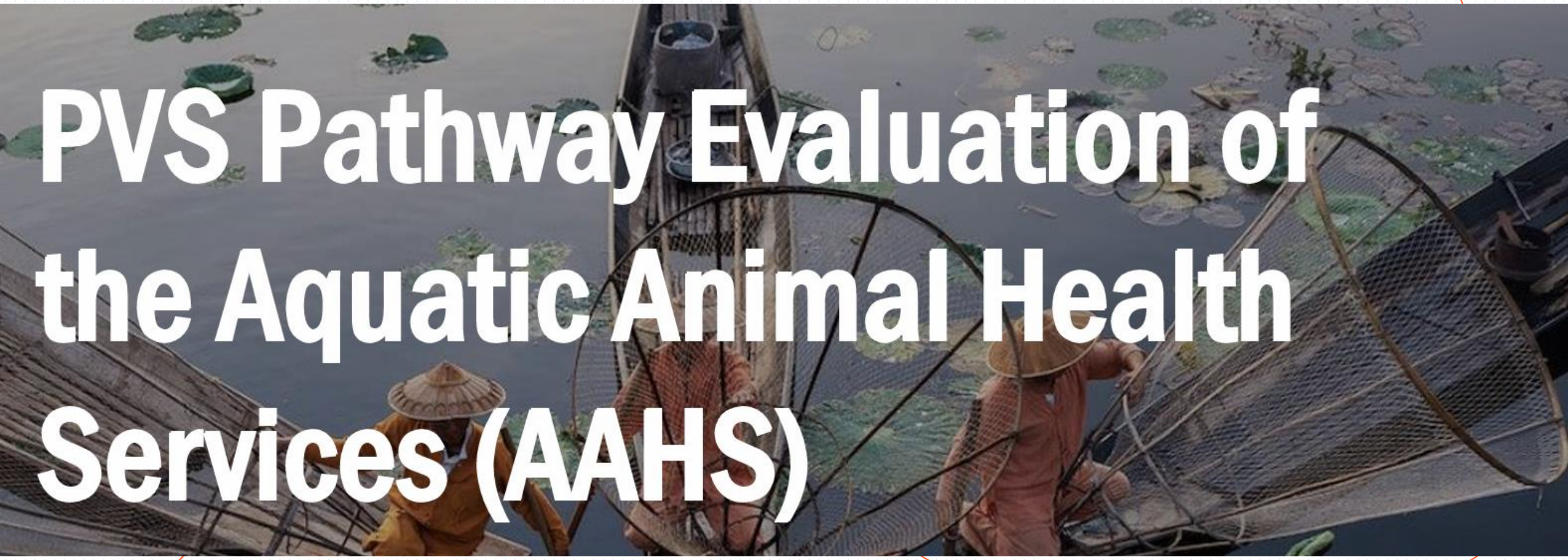
PVS Pathway Evaluation of
the Aquatic Animal Health
Services (AAHS)

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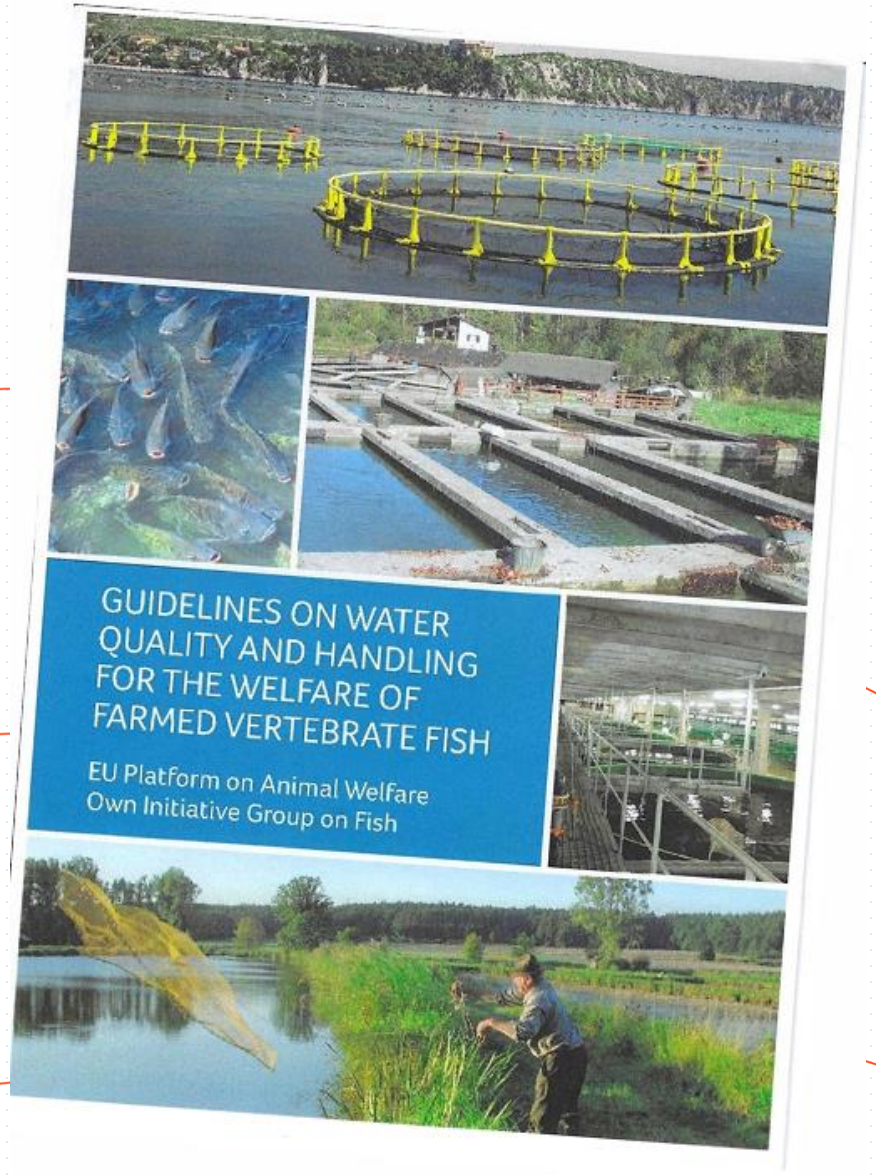

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Veterinærinstituttet
Norwegian Veterinary Institute

Scoring schemes

	1	2	3
Eye haemorrhage	Minor haemorrhages	Larger haemorrhages, or traumatic injury	Large haemorrhages / traumatic injury. Eye may be ruptured
Exophthalmia	Eye protruding a little	Moderate eye protrusion	Major eye protrusion
Opercular damage	Operculum only partly covering gills	Operculum absent on one of the gills (gill exposed)	Both opercula absent (both gills exposed)
Snout damage	Minor wound on snout (either jaw)	Moderate wound and broken skin on snout	Large deep and extensive wound. Can cover the whole head
Upper jaw deformity	Suspected malformation	Distinct malformation	Major malformation, jaw pointing backwards
Lower jaw deformity	Suspected malformation	Distinct malformation	Major malformation, jaw pointing backwards

	1	2	3
Emaciation	Potentially emaciated	Emaciated	Extremely emaciated
Vertebral deformity	Signs of deformed spine	"Short-tail"	Extreme deformity
Skin haemorrhages	Minor haemorrhaging, often on the belly of the fish	Large area of haemorrhaging, often coupled with scale loss	Significant bleeding, often with severe scale loss, wounds and skin edema
Lesions / wounds [1]	One small wound (< 10 pence piece)[1], subcutaneous tissue intact (no muscle visible)	Several small wounds	Large, severe wounds, muscle often exposed (≥ 10 pence piece)
Scale loss	Loss of individual scales	Small areas of scale loss (< 10% of the fish)	Large areas of scale loss (≥ 10% of the fish)
Sea lice infection	Light infection	0.05 - 0.08 pre-adult or adult lice cm^{-2} of fish skin	≥0.08 pre-adult or adult lice cm^{-2} of fish skin

[1] For pre-smolts "one small wound" should be < 1 cm. NB! Wounds that penetrate the abdomina cavity should be scored as a 3) irrespective of size

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Aquatic Animal Health Strategy

This Aquatic Strategy is a call to action to address some of the greatest challenges in managing aquatic animal health and welfare. It identifies and coordinates actions that address the highest-priority common needs and focus resources on activities that will provide enduring impacts

- Announced at the 4th Global Conference in Chile in April 2019
- Its development was a collaborative effort
- Support and input from the Aquatic Animal Commission and the whole WOAH Community
- Launched in May 2021

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Network Labs Fish disease
IIZZSS - Italia

Centro di referenza nazionale
per lo studio e la diagnosi delle malattie dei pesci, molluschi e crostacei

Istituto Zooprofilattico Sperimentale delle Venezie

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Veterinærinstituttet
Norwegian Veterinary Institute

International Aquaculture Team

Saraya Tavornpanich
Ewa Harasimczuk
Edgar Brun
Jacob Zornu
Arve Nilsen
Kari Norheim
Ketil Skår
Haakon Hansen
Maria-Fernanda Serrano
Kofitsyo Cudjoe

Aquae Strength Project - Activities

Field Visit to beneficiary countries – March to Oct 2023

Cambodia

Morocco

Israel

Tunisia

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Efficient surveillance system

Basic biosecurity conditions:

- Early detection system
- Capacity and expertise to investigate disease events
- Appropriate diagnostic capability
- Chain of command

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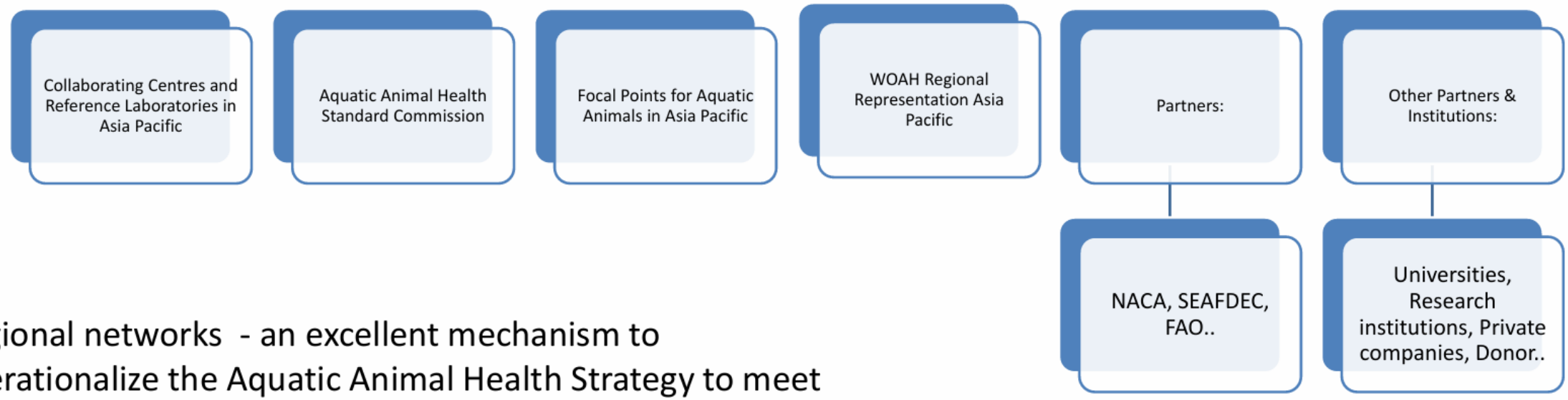
Asia-Pacific Aquatic Animal Health Network (AP AquaNet)



Regional networks - an excellent mechanism to operationalize the Aquatic Animal Health Strategy to meet regional needs and strengthen collaboration.

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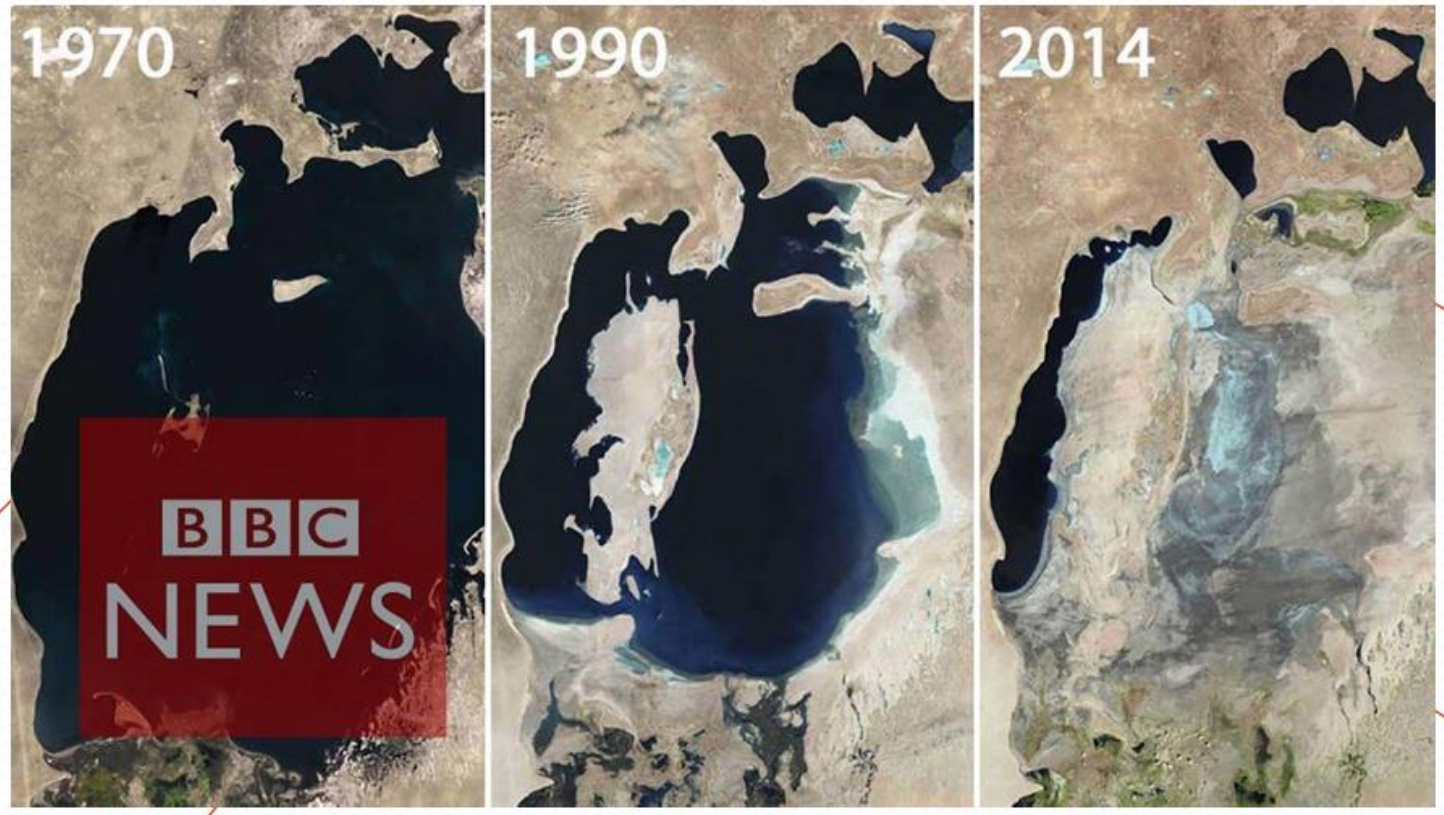

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Chemical causes

Irritating or toxic substances that compromise the health of the gills.

nbria Marche

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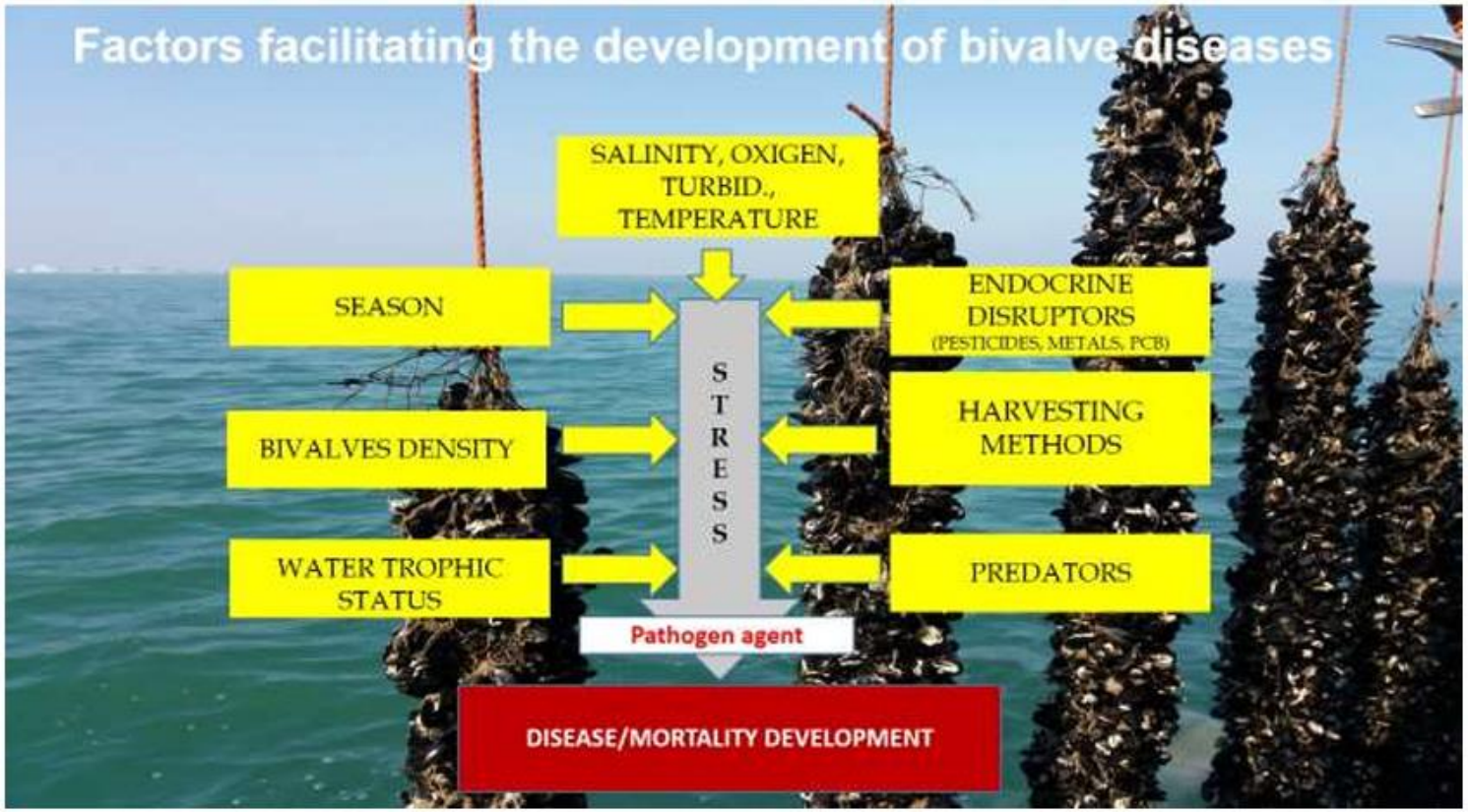

There is a marked dependence of molluscs on the environment and often mortality is the final event of an equilibrium that has been broken upstream

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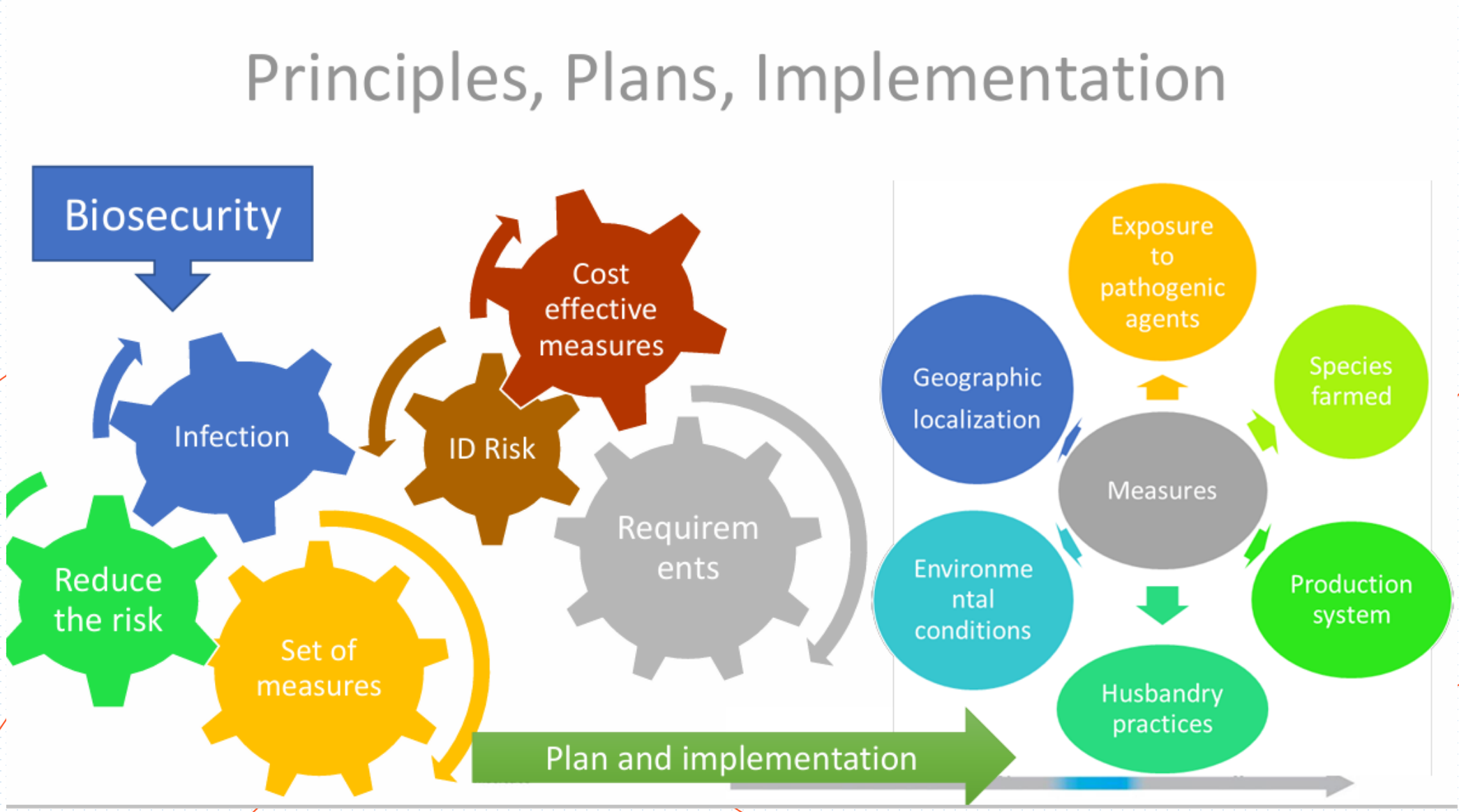

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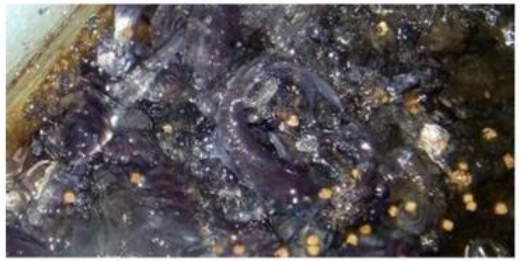
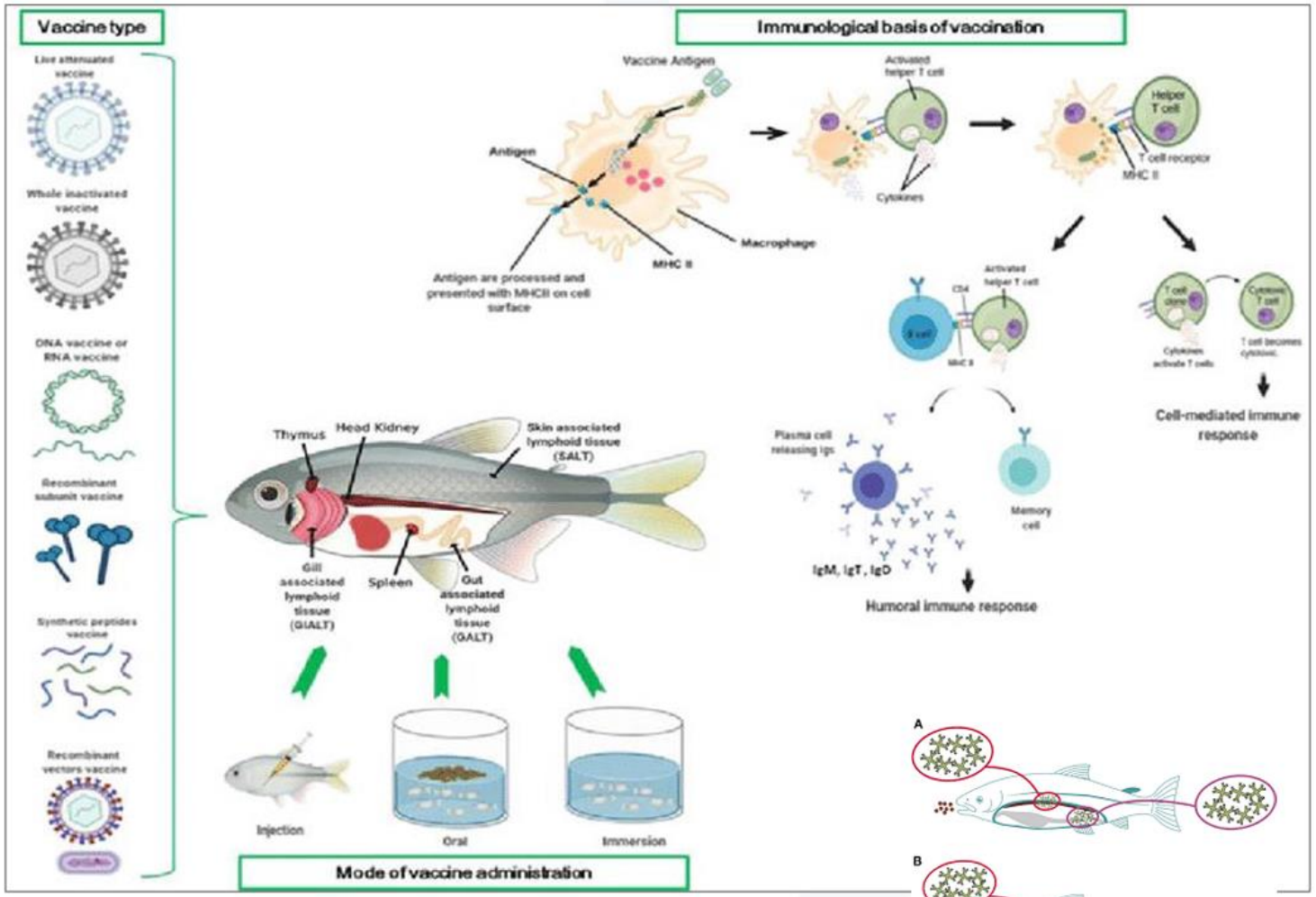
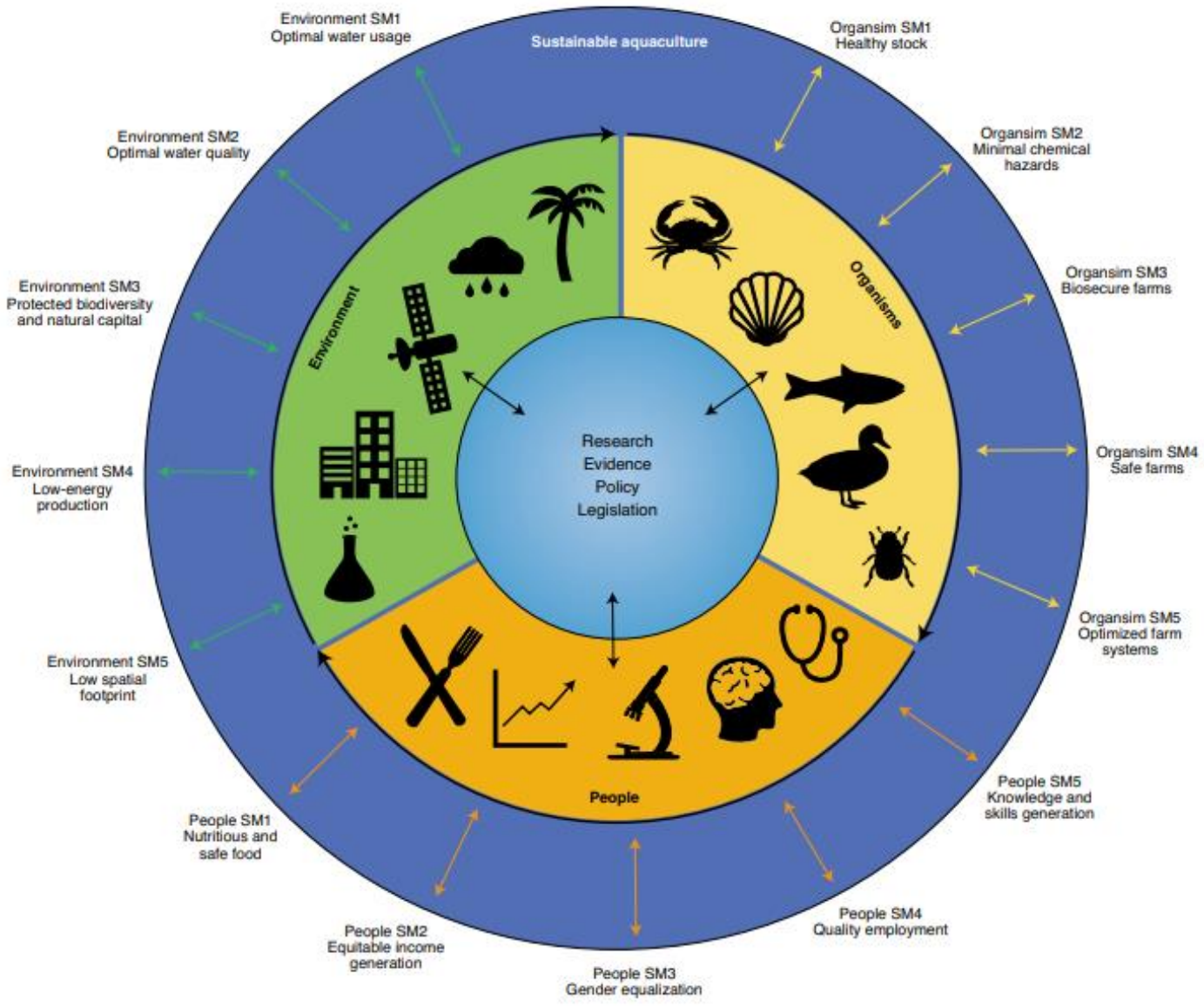
VACCINES AND VACCINATION STRATEGY





Aquaculture & One Health



One Health success metrics (SM) for aquaculture enhanced sustainable production (ESP)

nature food

PERSPECTIVE

https://doi.org/10.1038/s43016-020-0127-5

Check for updates

Sustainable aquaculture through the One Health lens

G. D. Stentiford[1,2]✉, I. J. Bateman[3], S. J. Hinchliffe[2,4], D. Bass[1,2], R. Hartnell[5], E. M. Santos[2,6], M. J. Devlin[7], S. W. Feist[1], N. G. H. Taylor[1,2], D. W. Verner-Jeffreys[1,2], R. van Aerle[1,2], E. J. Peeler[1,2], W. A. Higman[1], L. Smith[1], R. Baines[1], D. C. Behringer[8,9], I. Katsiadaki[1,2], H. E. Froehlich[10,11] and C. R. Tyler[2,6]

Veterinærinstituttet
Norwegian Veterinary Institute

Fishvet-dialogue

Aquaculture is regulated by several different authorities and regulations

Enhancing collaboration by engaging stakeholders and establishing public-private partnerships (PPPs)

Veterinærinstituttet
Norwegian Veterinary Institute

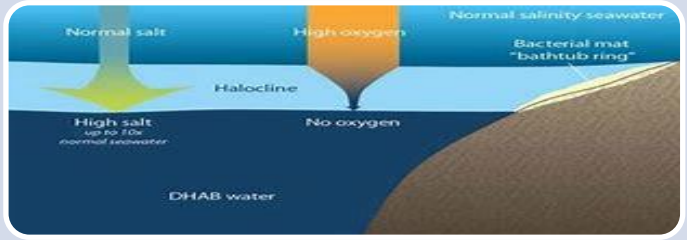
A fluctuating environment

Years

Season

Diurnal

Tidal currents



Thermoclines

Haloclines

Water velocity

Depth

Oxygen consumption

Metabolic products

Water current

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The outcomes of the event

1.Increased knowledge of new fish diseases: participants left the workshop with an enriched understanding of emerging fish diseases, facilitating early detection, prevention, and effective management.

2.Enhanced awareness of welfare in aquaculture: the workshop emphasized the significance of animal welfare in aquaculture practices, encouraging the development of more humane and sustainable systems.

3.Improved aquaculture health management: a better understanding of health management in aquaculture allows participants to make informed decisions, develop effective strategies, and ensure the welfare of aquatic animals.

Remind of the outcome of the AA FP workshop IV cycle

The outcomes of the event

The workshop yielded a range of positive outcomes, significantly advancing the field of aquaculture:

1.Strengthened knowledge of biosecurity: biosecurity is a critical component of disease prevention. The workshop provided participants with insights into biosecurity measures to protect aquatic animals from diseases.

2.Heightened focus on AMR issues: addressing AMR is vital for the long-term sustainability of aquaculture. Participants gained knowledge about responsible antimicrobial use and strategies to combat AMR.

3.Implementation of best practices: the workshop encouraged the implementation of best practices, enabling countries to enhance the efficiency, sustainability, and resilience of their aquaculture sectors.

4.Fostering knowledge sharing: the event served as a platform for national Focal Points to share knowledge, experiences, and best practices, fostering international cooperation and collaboration.

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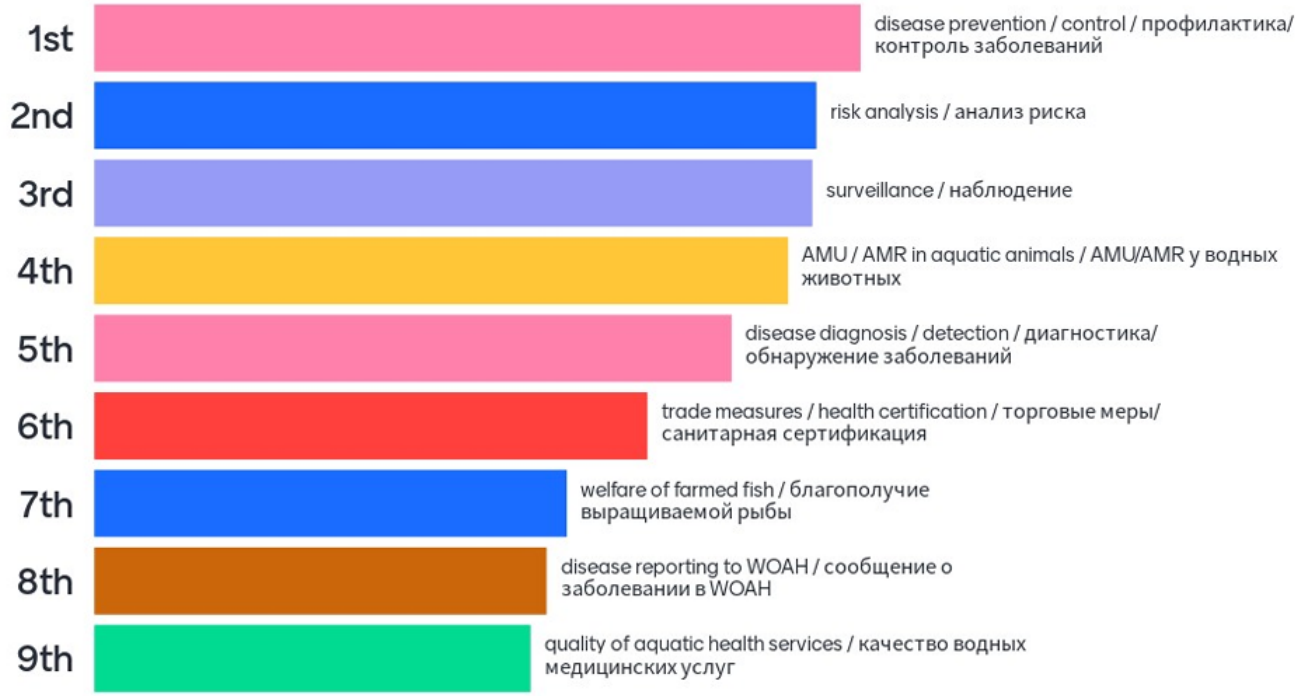
Please rank the priority for AAHS training you would like to have available from WOAH:



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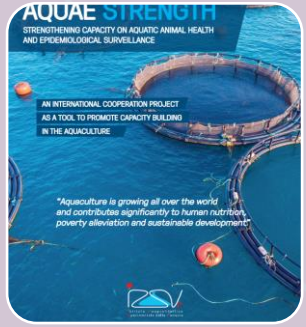
- To avoid movement of animals as the main biosecurity measures to apply
- To have an adequate budget for the laboratories
- To have a supporting legislation for depopulation of animals and for compensation
- To create a network to improve and share knowledge

World Organisation for Animal Health
Founded in 1924

Organisation mondiale de la santé animale
Fondée en 1924

Organización Mundial de Sanidad Animal
Fundada en 1924

TARGET



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