# WOAH Collaborative Centre Reports Activities 2022

## **Activities in 2022**

This report has been submitted: 13 février 2023 16:59

## **Centre Information**

Title of WOAH Collaborating Centre	Epidemiology Aquatic Animal Diseases (Europe)	
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Name Director of Institute (Responsible Official):	Dr. Torill Moseng	
Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):	Dr. Saraya Tavornpanich	
Name of the writer:	Dr. Saraya Tavornpanich	

#### **TOR1 AND 2: SERVICES PROVIDED**

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOAH

Training, capacity building		
Title of activity Scope		
	Providing trainings in disease diagnoses, surveillance, biosecurity, outbreak investigation, risk assessment, and data	

Fish for Development program - Ghana, Colombia, Sub-Saharan Africa. analyses as part of Fish for Development program for building capacity and knowledge in health management and epidemiology of aquatic animal diseases for Competent Authorities of the Ministry of Fisheries and Aquaculture in Ghana, Colombia, and Sub-Saharan Africa focusing on productions of fresh-water fish (tilapia, catfish, and trout).

Epidemiology. surveillance, risk assessment			
Title of activity	Scope		
Development and Implementation of the Progressive Management Pathway for Improving Aquaculture Biosecurity (PMP/AB).	Providing technical support in the development and implementation of the Progressive Management Pathway to improving Aquaculture Biosecurity (PMP/AB).		
Aquatic animal diseases			
Title of activity	Scope		
Ad hoc Group on Infection with tilapia lake virus.	Expert consultants at the disposal of the WOAH Ad hoc group member.		

## TOR3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main fucus area for which you were designated

Proposal title	Scope/Content	Applicable area
eDNA	Development and evaluation of method for PD surveillance	health management
Quantification of aquaculture biosecurity measures	Development of tools for quantification of aquaculture biosecurity measures	Training and education health management
Operational welfare indicator	Development and evaluation of a method for routine welfare monitoring of salmon in Norwegian food fish farms	Training and education health management
Traffic light system for controlling salmon lice in salmon production	Development and implementation of epidemiological model for evaluation sea lice infestation on wild salmon smolt as part of traffic light system	health management Wildlife health and biodiversity

4. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
WOAH Collaborating Centre for Economics of Animal Health.	UK	Europe	The Centre is part of the Consortium for WOAH CC for Economics of Animal Health, focusing on aquaculture.
WOAH Collaborating Centre for Epidemiology and Training on Emerging Avian Diseases	ltaly	Europe	The Centre has been invovled as the external advisor of the project "Strengthening Capacity on Aquatic Animal Health and Epidemiological Surveillance (AquaStrength)" with Scientific Coordinator Dr. Amedeo Manfrin and Project Manager Dr. Nicola Ferre
Network of Aquaculture Centres in Asia- Pacific (NACA)	Thailand	Asia and Pasific	A member of the Centre is co-opted member and presented at the annual meeting of the Asia Regional Advisory Group on Aquatic Animal Health.
WorldFish	Malaysia	Africa Asia and Pasific	Collaboration in a Capacity Building project AquaHealthAfrica (AHA)
FAO	ltaly	Europe	Collaboration with Sub- commission in aquaculture as a Technical working group in the development of PMP/AB
COST (European Cooperation in Science and Technology).	EU WOAH Collaborative Centre Repo	Europe	Participating in BETTER (Biosecurity Enhanced Through Training Evaluation and Raising Awareness) COST Action 20103 to reduce the risk of infectious disease introduction and spread by improving implementation of biosecurity measures in

			animal production systems.
The Royal Norwegian Society for Development (Norges Vel)	Norway	Africa	To support implementation of farm-level biosecurity and surveillance program in Tilapia production in Mozambique and Madagascar.

#### TOR4 AND 5: NETWORKING AND COLLABORATION

5. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
COST (European Cooperation in Science and Technology).	EU	Europe	A core group member in the HARMONY COST Action 18208 (the Novel tools for test evaluation and disease prevalence estimation) to coordinate and promote the implementation of Bayesian Latent Class Models (BLCMs) through networking and knowledge transfer.

#### **TOR6: EXPERT CONSULTANTS**

6. Did your Collaborating Centre place expert consultants at the disposal of WOAH?

Yes

NAME OF EXPERT	KIND OF CONSULTANCY	SUBJECT
Dr. Saraya Tavornpanich	Technical advice	Expert in epidemiology. Head of the OIE Collaborating Centre for Epidemiology and Risk Assessment of Aquatic Animal Diseases (Europe).
Dr. Mona Dverdal Jansen	Technical advice	Expert on epidemiology of Tilapia Lake Virus (TiLV)
Dr. Saraya Tavornpanich	Technical advice	Expert Group to the WOAH Observatory

Dr. Saraya Tavornpanich	Technical advice	Expert panel to the WOAH SRDK for a review of a dossier of diagnostic tests

#### TOR7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

Supervise a research study on an emerging zoonotic Streptococcus agalactiae, prevalence and antimicrobial resistance in freshwater fish in Southeast Asia to a request from Veterinary Public Health and Food Safety Centre for Asia Pacific (VPHCAP), Faculty of Veterinary Medicine, Chiang Mai University, Thailand

Supervise a research study on investigation of bacterial skin microbiota of farmed seabass in Aegean fish farms and antibiotic susceptibility determination to a request from Faculty of Veterinary Medicine, Istanbul University, Turkey

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOAH, to personnel from WOAH Members?

Yes

- a) Technical visit:
- b) Seminars:
- c) Hands-on training courses:
- d) Internships (>1 month):

a) internships (> 1 month):		COUNTRY OF ORIGIN OF THE	
TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)	CONTENT	COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING	NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY
a	Physical training on field sampling techniques and disease diagnostics in Accra, Ghana	Norway, Ghana	5
C	Physical training on Diagnostics, Biosecurity and Risk Assessment at Aquaculture Principals and Aquatic Animal Health management training course, Fish for Africa Innovation Hub - WorldFish - Abbassa, EGYPT. 16 July - 28 July 2022	Norway, France	30

#### **TOR8: SCIENTIFIC MEETINGS**

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOAH?

Nο

#### TOR9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOAH that may be useful to Members of WOAH

a) Articles published in peer-reviewed journals:

Partho Pratim Debnath, Mona Dverdal Jansen, Jérôme Delamare-Deboutteville, Chadag Vishnumurthy Mohan, Ha Thanh Dong, Channarong Rodkhum (2022)- Is tilapia mortality a latent concern for the aquaculture sector of Bangladesh? An epidemiology and health economic impact study, Aquaculture, Volume 560, 2022, 738607, ISSN 0044-8486, https://doi.org/10.1016/j.aquaculture.2022.738607.

Dean, K. R., Oliveira, V. H. S., Wolff, C., Moldal, T., & Jansen, M. D. (2022). Description of ISAV-HPRO- positive salmon farms in Norway in 2020. Journal of Fish Diseases, 45, 225–229.

#### b) International conferences:

Contributions of Epidemiology to Fish Health and Infectious Disease in the Face of Climate Change by Mona Dverdal Jansen. Keynote speaker. The 16th International Symposium of Veterinary Epidemiology and Economics (ISVEE). August 7-12. 2022. Halifax, Canada

Biosecurity in Aquaculture by Edgar Brun. Keynote speaker. The 11th Symposium on Diseases in Asian Aquaculture (DAA11). August 23, 2022. Virtual Conference.

A systematic approach for quantifying biosecurity measures in aquaculture by Margarida Leandro, Saraya Tavornpanich, Edgar Brun. Aquaculture America 2022. Febbruary 28 - March 4, 2022. San Diego, California. USA.

Mapping the disease situation in farmed tilapia in Lake Volta for improved aquaculture sustainability by Mona Dverdal Jansen\*, Angela Naa Amerley Ayiku, Abigail Akosua Adelani, Mary Nkansa, Patrick Appenteng, Saraya Tavornpanich, Kari Norheim, Kofitsyo S. Cudjoe & Samuel Duodu. Oral presentation, Aquaculture Africa conference, Alexandria, Egypt, 27. March 2022.

- c) National conferences:
- d) Other (Provide website address or link to appropriate information):
- 11. What have you done in the past year to advance your area of focus, e.g. updated technology?

  Members of the Centre attended workshops and trainings in the area of epidemiology and data analyses including: Causal Inference in R; 24 Steps to systematic review and meta-analysis; Bayesian Latent Class models for prevalence estimation and diagnostic test evaluation.
- 12. Additional comments regarding your report: