**WOAH Collaborative Centre Reports Activities 2023**

**Activities in 2023**

This report has been submitted: 10 juin 2024 16:58

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**Centre Information**

<table>
<thead>
<tr>
<th>Title of WOAH Collaborating Centre</th>
<th>Epidemiology and Risk Assessment of Aquatic Animal Diseases (Europe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of WOAH Collaborating Centre</td>
<td>Elizabeth Stephansens vei 1, 1433 Ås Norway</td>
</tr>
<tr>
<td>Tel:</td>
<td>+47 23 21 60 00</td>
</tr>
<tr>
<td>E-mail address:</td>
<td><a href="mailto:saraya.tavornpanich@vetinst.no">saraya.tavornpanich@vetinst.no</a>; <a href="mailto:maria.fernanda.serrano.de.la.cruz@vetinst.no">maria.fernanda.serrano.de.la.cruz@vetinst.no</a></td>
</tr>
<tr>
<td>Website:</td>
<td><a href="https://www.vetinst.no/en">https://www.vetinst.no/en</a></td>
</tr>
<tr>
<td>Name Director of Institute (Responsible Official):</td>
<td>Øyvind Fylling-Jensen</td>
</tr>
<tr>
<td>Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):</td>
<td>Saraya Tavornpanich</td>
</tr>
<tr>
<td>Name of the writer:</td>
<td>Maria Fernanda Serrano De La Maria Cruz</td>
</tr>
</tbody>
</table>

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**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

<table>
<thead>
<tr>
<th>Category</th>
<th>Title of activity</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology, surveillance, risk assessment, (true)</td>
<td>Fish for Development program</td>
<td>Providing epidemiology knowledge and support for carrying out scientific studies and risk assessment: - &quot;A baseline study to map the disease occurrence in tilapia farms on the Lake Volta&quot;, Ghana. - &quot;Molecular epidemiology and current management of Infectious Spleen and Kidney Necrosis Virus (ISKNV) infection in Ghanaian cultured tilapia&quot;, Ghana - Field epidemiology and economics survey tools for Aquaculture in Ghana and Kenya (data collected and will be analysed in 2024) - Two missions to the facility Tilapia de l'est in Madagascar: a risk assessment of the biosecurity plan/-system was performed and a baseline study was done to look for possible pathogenic agents in fish farms population.</td>
</tr>
<tr>
<td>Training, capacity building (true)</td>
<td>Fish for Development program</td>
<td>- Providing trainings in disease diagnoses, epidemiological surveillance, Best Management Practices and farm level, biosecurity, outbreak investigation, risk assessment, and data 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 as the Ministry of Fisheries</td>
</tr>
</tbody>
</table>

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WOAH Collaborative Centre Reports Activities 2023

1
Aquatic animal diseases (true)  

Fish for Development program

**TOR3: HARMONISATION OF STANDARDS**

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

<table>
<thead>
<tr>
<th>Proposal title</th>
<th>Scope/Content</th>
<th>Applicable area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantification of aquaculture biosecurity measures</td>
<td>Development of tools for quantification of aquaculture biosecurity measures</td>
<td>Training and education</td>
</tr>
</tbody>
</table>

3. In exercising your activities, have you identified any regulatory research needs relevant for WOAH?

Yes

**Research need:**

**Please type the Research need:** How to calculate/estimate and report to WAHIS in a more accurate way of the data related to outbreaks in Aquatic Animal Populations such as total of susceptible animals, total of disease/infected animals (with or without clinical signs), total of dead animals.

**Relevance for WOAH:** Capacity Building, Standard Setting,

**Relevance for the Codes or Manual Code:**

**Field** Epidemiology and Surveillance,

**Animal Category** Aquatic,

**Disease:**

**Kind of disease (Zoonosis, Transboundary diseases)**

**If any, please specify relevance for Codes or Manual, chapter and title**

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)

**Answer:**

**Notes:**

**Answer:**

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

<table>
<thead>
<tr>
<th>Name of WOAH CC/RL/other organisation(s)</th>
<th>Location</th>
<th>Region of networking Centre</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Collaborating Centre Network</td>
<td>Virtual</td>
<td>Africa, Americas, Asia and Pasific</td>
<td>Enhance the networking between WOAH aquatic CC’s and also between the aquatic CC’s and others in the WOAH</td>
</tr>
</tbody>
</table>
Wolford Collaborating Centre for Economics of Animal Health.

- The Centre is part of the Consortium for WOAH CC for Economics of Animal Health, focusing on aquaculture.

Wolford Collaborating Centre for Epidemiology and Training on Emerging Avian Diseases.

- The Centre has been involved 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)

- 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

- Collaboration in a Capacity Building project AquaHealthAfrica (AHA).

FAO

- Collaboration with Sub-commission in aquaculture as a technical working group in the development of PMP/AB.

The Royal Norwegian Society for Development (Norges Vel)

- 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

<table>
<thead>
<tr>
<th>Name of WOAH CC/RL/other organisation(s)</th>
<th>Location</th>
<th>Region of networking Centre</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>COST (European Cooperation in Science and Technology).</td>
<td>EU</td>
<td>Europe</td>
<td>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 both Terrestrials and Aquatics.</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>NAME OF EXPERT</th>
<th>KIND OF CONSULTANCY</th>
<th>SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Saraya Tavornpanich</td>
<td>Technical advice</td>
<td>Technical Committee Member: Aquatic Middle East Network (AQMENET)</td>
</tr>
<tr>
<td>Dr. Saraya Tavornpanich</td>
<td>Technical advice</td>
<td>Expert Group to the WOAH Observatory</td>
</tr>
<tr>
<td>Dr. Kristine Gismervik</td>
<td>Contribute to a talk at Regional Workshop for WOAH National Focal Points for Aquatic Animals IV Cycle, Europe*Fish welfare from farm to fork - Welfare indicators in use in Norway</td>
<td></td>
</tr>
</tbody>
</table>

**TOR7: SCIENTIFIC AND TECHNICAL TRAINING**

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

Yes

Share expertise knowledge regarding of the outbreak situation of *Streptococcus agalactiae* strain la in Colombia, including the risk assessment and control measures that were taken by the Instituto Colombiano Agropecuario - ICA

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 : 21
b) Seminars : 13
c) Hands-on training courses: 122
d) Internships (>1 month) : 0

<table>
<thead>
<tr>
<th>TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)</th>
<th>CONTENT</th>
<th>COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING</th>
<th>NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Technical Visit at the Norwegian Veterinary Institute Laboratory in Ås, Norway, to strengthen the competence and capacity of the Instituto Colombiano Agropecuario - ICA to diagnose important fish diseases</td>
<td>Norway</td>
<td>4</td>
</tr>
<tr>
<td>A</td>
<td>Technical Visit at the Norwegian Veterinary Institute Laboratory in Bergen, Norway, to strengthen the competence and capacity of the Instituto Colombiano Agropecuario - ICA to diagnose important fish diseases</td>
<td>Norway</td>
<td>17</td>
</tr>
</tbody>
</table>
### Pathology and bacteriology techniques.

**B** Monthly online seminar for master students participating in Aquatic Animal Health Africa (AHA) project including thesis progress presentations for peer discussions and technical feedback

- **Norway, Kenya, Ghana**
- **13**

**C** Organized epidemiology, biosecurity and outbreak investigation courses in Nairobi (15-17th March) and in Accra (17-19th April) for key stakeholders.

- **Norway, Kenya, Ghana, South Africa**
- **21**

**C** Training in epidemiology survey tool for data collection in Nairobi, Kenya (14-15th March) and Accra, Ghana (16-17th April) for key stakeholders.

- **Norway, Egypt, France, Malaysia**
- **37**

**C** Two capacity building training sessions of stakeholders from East and West Africa at Abbassa, Egypt with 21 participants in March and 25 participants in September

- **Norway, Egypt, Kenya, Ghana**
- **46**

**C** Training course in fish autopsy and sampling for disease investigation

- **Norway, Egypt**
- **18**

### 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?

**Yes**

<table>
<thead>
<tr>
<th>NATIONAL/INTERNATIONAL</th>
<th>TITLE OF EVENT</th>
<th>CO-ORGANISER</th>
<th>DATE (MM/YY)</th>
<th>LOCATION</th>
<th>NO. PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>3rd Global conference in Aquatic Animal Epidemiology (AquaEpi III)</td>
<td>Indian Council of Agricultural Research (ICAR), New Delhi.</td>
<td>2023-11-29</td>
<td>Lucknow, India</td>
<td>200</td>
</tr>
<tr>
<td>International</td>
<td>Regional Workshop for WOAH National Focal Points for Aquatic Animals IV Cycle</td>
<td>WOAH</td>
<td>2023-10-18</td>
<td>Chioggia (VE), Italy</td>
<td>55</td>
</tr>
<tr>
<td>International</td>
<td>Aquatic Middle East Network (AQMENET) Technical Committee meeting</td>
<td>WOAH</td>
<td>2023-06-06</td>
<td>Dharan, KSA</td>
<td>30</td>
</tr>
<tr>
<td>International</td>
<td>Regional Aquatic Animal Health Laboratory Network for Africa (RAAHLN-AF)</td>
<td>WOAH</td>
<td>2023-12-05</td>
<td>Pretoria, South Africa</td>
<td>100</td>
</tr>
</tbody>
</table>

### 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:
5


b) International conferences:
- Saraya Tavornpanich. Biosecurity measures in aquaculture, and how we quantify them. The 6th Australasian Scientific Conference on Aquatic Animal Health and Biosecurity. Cairns, Qld, Australia. 3-7 July, 2023
- Kristine Gismervik. Fish welfare from farm to fork - Understanding welfare indicators, and their use in Norway. AquaEpi III. Lucknow. India. 29 November - 1 December, 2023.

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: use of basic epidemiological tools, analysis of data, risk analysis, outbreak investigation, assessment of epidemiological surveillance and biosecurity in Aquatic Animals.

12. Additional comments regarding your report: